



UNIVERSITY OF EASTERN
AFRICA, BARATON

ACADEMIC BULLETIN

2024-2028



NINETEENTH EDITION

Academic Bulletin

2024 - 2028

NINETEENTH EDITION



UNIVERSITY OF EASTERN AFRICA, BARATON

A Chartered Seventh-day Adventist Institution of Higher Learning

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The University of Eastern Africa, Baraton, is a Seventh-day Adventist institution of higher learning. It is located at Baraton, Nandi County, approximately 50 kilometers from Eldoret or 35 kilometers from Eldoret International Airport.

Though it is a private university, UEAB is open to any student regardless of religion, gender, or race provided he/she is willing to abide by the policies of the university.

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Academic Calendar - General

ACADEMIC YEAR - 2024/2025

FIRST SEMESTER

New Students Report.....	August 28-29, 2024
New Students Registration.....	August 29-30, 2024
Continuing Students Registration.....	September 2, 2024
Classes Begin.....	September 2, 2024
Late Registration Fee in Effect.....	September 3-10, 2024
Last Day to Enter a Class.....	September 10, 2024
Last Day to Change from Audit to Credit.....	September 10, 2024
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 10, 2024
Heritage Week.....	September 16-21, 2024
Week of Spiritual Emphasis October.....	October 6-12, 2024
Last Day to Drop a Class with a "W".....	October 11, 2024
Last Day to Change from Credit to Audit.....	October 11, 2024
Mashujaa Day Holiday.....	October 20, 2024
End of Semester Senate.....	October 30, 2024
Semester Examinations.....	November 24-December 4, 2024

SECOND SEMESTER

New Students Report.....	January 8-9, 2025
New Students Registration.....	January 10, 2025
Continuing Students Registration.....	January 13, 2025
Late Registration Fee in Effect.....	January 14-22, 2025
Last Day to Enter Class.....	January 22, 2025
Last Day to Change from Audit to Credit.....	January 22, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 22, 2025
Last Day to Drop a Class with a "W".....	March 7, 2025
Week of Spiritual Emphasis.....	March 15-22, 2025
Probable Eid al-Fitr Holiday.....	March 30, 2025
End of Semester Senate.....	April 2, 2025
Semester Examinations.....	April 14-24, 2025
Good Friday.....	April 18, 2025
Easter Monday.....	April 21, 2025

INTER-SEMESTER

Registration for Session 1.....	May 12, 2025
Classes Begin for Session 1.....	May 12, 2025
Late Registration Fee in Effect for Session 1.....	May 13, 2025
Last Day to Enter Class for Session 1.....	May 13, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 1.....	May 13, 2025
Last Day to Change from Audit to Credit for Session 1.....	May 13, 2025
Last day to Drop a Class with a "W" for Session 1.....	May 23, 2025
Last Day to Change from Credit to Audit for Session 1.....	May 23, 2025
Madaraka Day Holiday.....	June 1, 2025
Session 1 Final Examinations.....	June 3-5, 2025
Registration for Session 2.....	June 9, 2025
Classes Begin for Session 2.....	June 9, 2025
Late Registration Fee in Effect for Session 2.....	June 10, 2025
Last Day to Enter Class for Session 2.....	June 10, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 2.....	June 10, 2025
Last Day to Change from Audit to Credit for Session 2.....	June 10, 2025
Last day to Drop a Class with a "W" for Session 2.....	June 20, 2025
Last Day to Change from Credit to Audit for Session 2.....	June 20, 2025
Session 2 Final Examinations.....	July 2-3, 2025
Graduation.....	August 14-17, 2025

ACADEMIC YEAR - 2025/2026

FIRST SEMESTER

New Students Report.....	August 27-28, 2025
New Students Registration.....	August 29, 2025
Continuing Students Registration.....	September 1, 2025
Classes Begin.....	September 1, 2025
Research Conference.....	September 3-5, 2025
Late Registration Fee in Effect.....	September 8- 15, 2025
Last Day to Enter Class.....	September 15, 2025
Last Day to Change from Audit to Credit.....	September 15, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 15, 2025
Heritage Week.....	September 22-27, 2025
Innovation & Entrepreneurship Week.....	September 28- October 3, 2025
Week of Spiritual Emphasis.....	October 4 -11, 2025
Huduma Day Holiday.....	October 10, 2025
Last Day to Drop a Class with a "W".....	October 17, 2025
Mashujaa Day Holiday.....	October 20, 2025
End of Semester Senate.....	November 17, 2025
Semester Examinations.....	December 1-11, 2025

SECOND SEMESTER

New Students Report.....	January 7-8, 2026
New Students Registration.....	January 9, 2026
Continuing Students Registration.....	January 12, 2026
Classes Begin.....	January 12, 2026
Late Registration Fee in Effect.....	January 13-21, 2026
Last Day to Enter Class.....	January 21, 2026
Last Day to Change from Audit to Credit.....	January 21, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 21, 2026
Last Day to Drop a Class with a "W".....	February 6, 2026
Week of Spiritual Emphasis.....	March 14-21, 2026
Probable Eid al-Fitr Holiday.....	March 20, 2026
End of Semester Senate.....	March 30, 2026
Good Friday.....	April 3, 2026
Easter Monday.....	April 6, 2026
Semester Examinations.....	April 13-23, 2026

INTER-SEMESTER

Labour Day.....	May 1, 2026
Registration for Session 1.....	May 7, 2026
Classes Begin for Session 1.....	May 7, 2026
Late Registration Fee in Effect for Session 1.....	May 8, 2026
Last Day to Enter Class for Session 1.....	May 8, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 1.....	May 8, 2026
Last Day to Change from Audit to Credit for Session 1.....	May 18, 2026
Last day to Drop a Class with a "W" for Session 1.....	May 18, 2026
Madaraka Day Holiday.....	June 1, 2026
Session 1 Final Examinations.....	June 4-5, 2026
Registration for Session 2.....	June 8, 2026
Classes Begin for Session 2.....	June 8, 2026
Late Registration Fee in Effect for Session 2.....	June 9, 2026
Last Day to Enter Class for Session 2.....	June 9, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 2.....	June 9, 2026
Week of Spiritual Emphasis.....	June 14-20, 2026
Last Day to Change from Audit to Credit for Session 2.....	June 19, 2026
Last day to Drop a Class with a "W" for Session 2.....	June 19, 2026
Session 2 Final Examinations.....	July 6-7, 2026

ACADEMIC YEAR - 2026/2027

FIRST SEMESTER

New Students Report.....	August 26 - 27, 2026
New Students Registration August.....	August 28, 2026
Continuing Students Registration.....	August 31, 2026
Classes Begin.....	August 31, 2026
Research Conference.....	September 2-4, 2026
Late Registration Fee in Effect.....	September 7-11, 2026
Last Day to Enter Class.....	September 11, 2026
Last Day to Change from Audit to Credit.....	September 11, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 11, 2026
Heritage Week.....	September 21-26, 2026
Innovation & Entrepreneurship Week.....	September 27-October 2, 2026
Week of Spiritual Emphasis.....	October 3-10, 2026
Huduma Day Holiday.....	October 10, 2026
Last Day to Drop a Class with a "W".....	October 16, 2026
Mashujaa Day Holiday.....	October 20, 2026
End of Semester Senate.....	November 16, 2026
Semester Examinations.....	November 26 - December 9, 2026
Graduation.....	December 10-13, 2026

SECOND SEMESTER

New Students Report.....	January 6-7, 2027
New Students Registration.....	January 8, 2027
Continuing Students Registration.....	January 11, 2027
Classes Begin.....	January 11, 2027
Late Registration Fee in Effect.....	January 12-19, 2027
Last Day to Enter Class.....	January 19, 2027
Last Day to Change from Audit to Credit.....	January 19, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 19, 2027
Last Day to Drop a Class with a "W".....	March 5, 2027
Week of Spiritual Emphasis.....	March 13-20, 2027
End of Semester Senate.....	April 1, 2027
Probable Eid al-Fitr Holiday.....	March 9, 2027
Good Friday.....	March 26, 2027
Easter Monday.....	March 29, 2027
Semester Examinations.....	April 12-22, 2027

INTER-SEMESTER

Labour Day.....	May 1, 2027
Registration for Session 1.....	May 3, 2027
Classes Begin for Session 1.....	May 3, 2027
Late Registration Fee in Effect for Session 1.....	May 4, 2027
Last Day to Enter Class for Session 1.....	May 4, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 1.....	May 4, 2027
Last Day to Change from Audit to Credit for Session 1.....	May 18, 2027
Last day to Drop a Class with a "W" for Session 1.....	May 18, 2027
Madaraka Day Holiday.....	June 1, 2027
Session 1 Final Examinations.....	May 31-June 2, 2027
Registration for Session 2.....	June 3, 2027
Classes Begin for Session 2.....	June 3, 2027
Late Registration Fee in Effect for Session 2.....	June 4, 2027
Last Day to Enter Class for Session 2.....	June 4, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 2.....	June 4, 2027
Week of Spiritual Emphasis.....	June 13-19, 2027
Last Day to Change from Audit to Credit for Session 2.....	June 14, 2027
Last day to Drop a Class with a "W" for Session 2.....	June 14, 2027
Session 2 Final Examinations.....	June 28-29, 2027

ACADEMIC YEAR - 2027/2028

FIRST SEMESTER

New Students Report.....	August 25-26, 2027
New Students Registration.....	August 27, 2027
Continuing Students Registration.....	August 30, 2027
Classes Begin.....	August 30, 2027
Research Conference.....	September 1-3, 2027
Late Registration Fee in Effect.....	September 6-10, 2027
Last Day to Enter Class.....	September 10, 2027
Last Day to Change from Audit to Credit.....	September 10, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 10, 2027
Heritage Week.....	September 13-18, 2027
Innovation & Entrepreneurship Week September.....	26 September-October 1, 2027
Week of Spiritual Emphasis.....	October 2-9, 2027
Huduma Day Holiday.....	October 10, 2027
Last Day to Drop a Class with a "W".....	October 15, 2027
Mashujaa Day Holiday.....	October 20, 2027
End of Semester Senate.....	November 15, 2027
Semester Examinations.....	November 25 - December 8, 2027
Graduation.....	December 9-12, 2027

SECOND SEMESTER

New Students Report.....	January 5-6, 2028
New Students Registration.....	January 7, 2028
Continuing Students Registration.....	January 10, 2028
Classes Begin.....	January 10, 2028
Late Registration Fee in Effect.....	January 11-19, 2028
Last Day to Enter Class.....	January 19, 2028
Last Day to Change from Audit to Credit.....	January 19, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 19, 2028
Last Day to Drop a Class with a "W".....	March 3, 2028
Probable Eid al-Fitr Holiday.....	February 26, 2028
Week of Spiritual Emphasis.....	March 11-18, 2028
End of Semester Senate.....	March 27, 2028
Semester Examinations.....	April 10-25, 2028
Good Friday.....	April 14, 2028
Easter Monday.....	April 17, 2028

INTER-SEMESTER

Registration for Session 1.....	May 8, 2028
Classes Begin for Session 1.....	May 8, 2028
Late Registration Fee in Effect for Session 1.....	May 9, 2028
Last Day to Enter Class for Session 1.....	May 9, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 1.....	May 9, 2028
Last Day to Change from Audit to Credit for Session 1.....	May 16, 2028
Last day to Drop a Class with a "W" for Session 1.....	May 16, 2028
Madaraka Day Holiday.....	June 1, 2028
Session 1 Final Examinations.....	June 5-6, 2028
Registration for Session 2.....	June 7, 2028
Classes Begin for Session 2.....	June 7, 2028
Late Registration Fee in Effect for Session 2.....	June 8, 2028
Last Day to Enter Class for Session 2.....	June 8, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 2.....	June 8, 2028
Week of Spiritual Emphasis.....	June 11-17, 2028
Last Day to Change from Audit to Credit for Session 2.....	June 19, 2028
Last day to Drop a Class with a "W" for Session 2.....	June 19, 2028
Session 2 Final Examinations.....	July 3-4, 2028

ACADEMIC YEAR - 2028/2029

FIRST SEMESTER

New Students Report.....	August 30-31, 2028
New Students Registration.....	September 1, 2028
Continuing Students Registration.....	September 4, 2028
Classes Begin.....	September 4, 2028
Research Conference.....	September 6-8, 2028
Late Registration Fee in Effect.....	September 11-15, 2028
Last Day to Enter Class.....	September 15, 2028
Last Day to Change from Audit to Credit.....	September 15, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 15, 2028
Heritage Week.....	September 17-23, 2028
Innovation & Entrepreneurship Week.....	October 1- 6, 2028
Week of Spiritual Emphasis.....	October 7-14, 2028
Huduma Day Holiday.....	October 10, 2028
Last Day to Drop a Class with a "W".....	October 19, 2028
Mashujaa Day Holiday.....	October 20, 2028
End of Semester Senate.....	November 20, 2028
Semester Examinations.....	November 30 - December 13, 2028
Graduation.....	December 14-17, 2028

SECOND SEMESTER

New Students Report.....	January 10-11, 2029
New Students Registration.....	January 12, 2029
Continuing Students Registration.....	January 15, 2029
Classes Begin.....	January 15, 2029
Late Registration Fee in Effect.....	January 16-24, 2029
Last Day to Enter Class.....	January 24, 2029
Last Day to Change from Audit to Credit.....	January 24, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 24, 2029
Last Day to Drop a Class with a "W".....	March 9, 2029
Week of Spiritual Emphasis.....	March 9, 2029
Probable Eid al-Fitr Holiday.....	February 14, 2029
Good Friday.....	March 30, 2029
Easter Monday.....	April 2, 2029
End of Semester Senate.....	April 3, 2029
Semester Examinations.....	April 16-27, 2029

INTER-SEMESTER

Registration for Session 1.....	May 7, 2029
Classes Begin for Session 1.....	May 7, 2029
Late Registration Fee in Effect for Session 1.....	May 8, 2029
Last Day to Enter Class for Session 1.....	May 8, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 1.....	May 8, 2029
Last Day to Change from Audit to Credit for Session 1.....	May 18, 2029
Last day to Drop a Class with a "W" for Session 1.....	May 18, 2029
Madaraka Day Holiday.....	June 1, 2029
Session 1 Final Examinations.....	June 4-5, 2029
Registration for Session 2.....	June 6, 2029
Classes Begin for Session 2.....	June 6, 2029
Late Registration Fee in Effect for Session 2.....	June 7, 2029
Last Day to Enter Class for Session 2.....	June 7, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 2.....	June 7, 2029
Week of Spiritual Emphasis.....	June 10-16, 2029
Last Day to Change from Audit to Credit for Session 2.....	June 15, 2029
Last day to Drop a Class with a "W" for Session 2.....	June 15, 2029
Session 2 Final Examinations.....	July 2-3, 2029

ACADEMIC YEAR - 2029/2030

FIRST SEMESTER

New Students Report.....	August 29-30, 2029
New Students Registration.....	August 31, 2029
Continuing Students Registration.....	September 3, 2029
Classes Begin.....	September 3, 2029
Research Conference.....	September 5-7, 2029
Late Registration Fee in Effect.....	September 10-14, 2029
Last Day to Enter Class.....	September 14, 2029
Last Day to Change from Audit to Credit.....	September 14, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 14, 2029
Heritage Week.....	September 16-21, 2029
Innovation & Entrepreneurship Week.....	September 30-October 5, 2029
Week of Spiritual Emphasis.....	October 6-13, 2029
Huduma Day Holiday.....	October 10, 2029
Last Day to Drop a Class with a "W".....	October 19, 2029
Mashujaa Day Holiday.....	October 20, 2029
End of Semester Senate.....	November 19, 2029
Semester Examinations.....	November 29-December 13, 2029
Graduation.....	December 13-16, 2029

SECOND SEMESTER

New Students Report.....	January 9-10, 2030
New Students Registration.....	January 11, 2030
Continuing Students Registration.....	January 14, 2030
Classes Begin.....	January 14, 2030
Late Registration Fee in Effect.....	January 15-23, 2030
Last Day to Enter Class.....	January 23, 2030
Last Day to Change from Audit to Credit.....	January 23, 2030
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 23, 2030
Last Day to Drop a Class with a "W".....	March 8, 2030
Week of Spiritual Emphasis.....	March 16-23, 2030
Probable Eid al-Fitr Holiday.....	February 14, 2030
Good Friday.....	March 30, 2030
Easter Monday.....	April 2, 2030
End of Semester Senate.....	April 8, 2030
Semester Examinations.....	April 15-25, 2030

INTER-SEMESTER

Registration for Session 1.....	May 6, 2030
Classes Begin for Session 1.....	May 6, 2030
Late Registration Fee in Effect for Session 1.....	May 7, 2030
Last Day to Enter Class for Session 1.....	May 7, 2030
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 1.....	May 17, 2030
Last Day to Change from Audit to Credit for Session 1.....	May 17, 2030
Last day to Drop a Class with a "W" for Session 1.....	May 20, 2030
Madaraka Day Holiday.....	June 1, 2030
Session 1 Final Examinations.....	June 3-4, 2030
Registration for Session 2.....	June 5, 2030
Classes Begin for Session 2.....	June 5, 2030
Late Registration Fee in Effect for Session 2.....	June 6, 2030
Last Day to Enter Class for Session 2.....	June 6, 2030
Last Day to Add or Drop a Course without Entry on Permanent Academic Record for Session 2.....	June 6, 2030
Week of Spiritual Emphasis.....	June 9-15, 2030
Last Day to Change from Audit to Credit for Session 2.....	June 17, 2030
Last day to Drop a Class with a "W" for Session 2.....	June 17, 2030
Session 2 Final Examinations.....	July 1-2, 2030

Academic Calendar - Nursing

ACADEMIC YEAR - 2024/2025

FIRST TRIMESTER

Registration and new Students Report.....	August 28-29, 2024
New Students Orientation.....	August 29-30, 2024
Classes Begin.....	September 2, 2024
Late Registration Fee in Effect.....	September 3-10, 2024
Last Day to Enter Class.....	September 10, 2024
Last Day to Change from Audit to Credit.....	September 10, 2024
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 10, 2024
Heritage Week.....	September 16-21, 2024
Week of Spiritual Emphasis.....	October 6-12, 2024
Last Day to Drop a Class with a "W".....	October 11, 2024
Last Day to Change from Credit to Audit.....	October 11, 2024
Mashujaa Day Holiday.....	October 20, 2024
End of Semester Senate.....	October 30, 2024
Trimester Examinations.....	November 18-22, 2024

SECOND TRIMESTER

New Students Report.....	January 8-9, 2025
New Students Registration.....	January 10, 2025
Continuing Students Registration.....	January 13, 2025
Late Registration Fee in Effect.....	January 14-22, 2025
Last Day to Enter Class.....	January 22, 2025
Last Day to Change from Audit to Credit.....	January 22, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 22, 2025
Last Day to Drop a Class with a "W".....	March 7, 2025
Week of Spiritual Emphasis.....	March 15-22, 2025
Probable Eid al-Fitr Holiday.....	March 30, 2025
End of Trimester Senate.....	April 2, 2025
Trimester Examinations.....	April 7-11, 2025
Good Friday.....	April 18, 2025
Easter Monday.....	April 21, 2025

THIRD TRIMESTER

Registration.....	April 20- 28, 2025
Classes Begin.....	April 28, 2025
Late Registration Fee in Effect.....	April 29- May 6, 2025
Labour Day Holiday.....	May 1, 2025
Last Day to Enter Class.....	May 2, 2025
Last Day to Change from Audit to Credit.....	May 2, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	May 2, 2025
Research Conference.....	May 7-9, 2025
Madaraka Day Holiday.....	June 1, 2025
Last Day to Drop a Class with a "W".....	June 13, 2025
Last Day to Change from Credit to Audit.....	June 13, 2025
Trimester Final Examinations.....	July 21-25, 2025
Graduation.....	August 14-17, 2025

ACADEMIC YEAR - 2025/2026

FIRST TRIMESTER

New Students Report.....	August 27-28, 2025
New Students Registration.....	August 29, 2025
Continuing Students Registration.....	September 1, 2025
Classes Begin.....	September 1, 2025
Research Conference.....	September 3-5, 2025
Late Registration Fee in Effect.....	September 8- 15, 2025
Last Day to Enter Class.....	September 15, 2025
Last Day to Change from Audit to Credit.....	September 15, 2025
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 15, 2025
Heritage Week.....	September 22-27, 2025
Innovation & Entrepreneurship Week.....	September 28-October 3, 2025
Week of Spiritual Emphasis.....	October 4 -11, 2025
Huduma Day Holiday.....	October 10, 2025
Last Day to Drop a Class with a "W".....	October 17, 2025
Mashujaa Day Holiday.....	October 20, 2025
End of Semester Senate.....	November 17, 2025
Trimester Examinations.....	November 24-27, 2025

SECOND TRIMESTER

New Students Report.....	January 7-8, 2026
New Students Registration.....	January 9, 2026
Continuing Students Registration.....	January 12, 2026
Classes Begin.....	January 12, 2026
Late Registration Fee in Effect.....	January 13-21, 2026
Last Day to Enter Class.....	January 21, 2026
Last Day to Change from Audit to Credit.....	January 21, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 21, 2026
Last Day to Drop a Class with a "W".....	February 6, 2026
Week of Spiritual Emphasis.....	March 14-21, 2026
Probable Eid al-Fitr Holiday.....	March 20, 2026
End of Semester Senate.....	March 30, 2026
Good Friday.....	April 3, 2026
Easter Monday.....	April 6, 2026
Trimester Final Examinations.....	April 7-10, 2026

THIRD TRIMESTER

Registration.....	April 20-21, 2026
Classes Begin.....	April 22, 2026
Late Registration Fee in Effect.....	April 23, 2026
Labour Day Holiday.....	May 1, 2026
Last Day to Enter Class.....	May 4, 2026
Last Day to Change from Audit to Credit.....	May 4, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	May 4, 2026
Madaraka Day Holiday.....	June 1, 2026
Last Day to Drop a Class with a "W".....	June 12, 2026
Last Day to Change from Credit to Audit.....	June 12, 2026
Week of Spiritual Emphasis.....	June 14-20, 2026
Trimester Final Examinations.....	July 27- 31, 2026

ACADEMIC YEAR – 2026/2027

FIRST TRIMESTER

New Students Report.....	August 26-27, 2026
New Students Registration.....	August 28, 2026
Continuing Students Registration	August 31, 2026
Classes Begin.....	August 31, 2026
Research Conference.....	September 2-4, 2026
Late Registration Fee in Effect.....	September 7- 11, 2026
Last Day to Enter Class.....	September 11, 2026
Last Day to Change from Audit to Credit.....	September 11, 2026
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 11, 2026
Heritage Week.....	September 21-26, 2026
Innovation & Entrepreneurship Week.....	September 27-October 2, 2026
Huduma Day Holiday.....	October 10, 2026
Week of Spiritual Emphasis.....	October 3-10, 2026
Last Day to Drop a Class with a "W".....	October 16, 2026
Mashujaa Day Holiday.....	October 20, 2026
End of Semester Senate.....	November 16, 2026
Trimester Examinations.....	November 23-26, 2026
Graduation.....	December 10-13, 2026

SECOND TRIMESTER

New Students Report.....	January 6-7, 2027
New Students Registration.....	January 8, 2027
Continuing Students Registration.....	January 11, 2027
Classes Begin.....	January 11, 2027
Late Registration Fee in Effect.....	January 12, 2027
Last Day to Enter Class.....	January 19, 2027
Last Day to Change from Audit to Credit.....	January 19, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 19, 2027
Last Day to Drop a Class with a "W".....	March 5, 2027
Week of Spiritual Emphasis.....	March 13-20, 2027
End of Semester Senate.....	April 1, 2027
Probable Eid al-Fitr Holiday.....	March 9, 2027
Good Friday.....	March 26, 2027
Easter Monday.....	March 29, 2027
Trimester Final Examinations.....	April 12-16, 2027

THIRD TRIMESTER

Registration.....	April 26-27, 2027
Classes Begin.....	April 27, 2027
Late Registration Fee in Effect.....	April 28, 2027
Labour Day Holiday.....	May 1, 2027
Last Day to Enter Class.....	May 4, 2027
Last Day to Change from Audit to Credit.....	May 4, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	May 4, 2027
Madaraka Day Holiday.....	June 1, 2027
Week of Spiritual Emphasis.....	June 13-19, 2027
Last Day to Drop a Class with a "W".....	June 18, 2027
Trimester Final Examinations.....	July 26- 30, 2027

ACADEMIC YEAR – 2027/2028

FIRST TRIMESTER

New Students Report.....	August 25- 26, 2027
New Students Registration.....	August 27, 2027
Continuing Students Registration.....	August 30, 2027
Classes Begin.....	August 30, 2027
Research Conference.....	September 1-3, 2027
Late Registration Fee in Effect.....	September 6- 10, 2027
Last Day to Enter Class.....	September 10, 2027
Last Day to Change from Audit to Credit.....	September 10, 2027
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 10, 2027
Heritage Week.....	September 13-18, 2027
Innovation & Entrepreneurship Week.....	September 26- October 1, 2027
Week of Spiritual Emphasis.....	October 2-9, 2027
Huduma Day Holiday.....	October 10, 2027
Last Day to Drop a Class with a "W".....	October 15, 2027
Mashujaa Day Holiday.....	October 20, 2027
End of Semester Senate.....	November 15, 2027
Trimester Examinations.....	November 22-25, 2027
Graduation.....	December 9- 12, 2027

SECOND TRIMESTER

New Students Report.....	January 5-6, 2028
New Students Registration.....	January 7, 2028
Continuing Students Registration.....	January 10, 2028
Classes Begin.....	January 10, 2028
Late Registration Fee in Effect.....	January 11, 2028
Last Day to Enter Class.....	January 19, 2028
Last Day to Change from Audit to Credit.....	January 19, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 19, 2028
Last Day to Drop a Class with a "W".....	March 3, 2028
Probable Eid al-Fitr Holiday.....	February 26, 2028
Week of Spiritual Emphasis.....	March 11-18, 2028
End of Semester Senate.....	March 27, 2028
Semester Examinations.....	April 10-25, 2028
Good Friday.....	April 14, 2028
Easter Monday.....	April 17, 2028

THIRD TRIMESTER

Registration.....	April 18-19, 2028
Classes Begin.....	April 19, 2028
Late Registration Fee in Effect.....	April 20, 2028
Labour Day Holiday.....	May 1, 2028
Last Day to Enter Class.....	May 4, 2028
Last Day to Change from Audit to Credit.....	May 4, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	May 4, 2028
Madaraka Day Holiday.....	June 1, 2028
Week of Spiritual Emphasis.....	June 11-18, 2028
Last Day to Drop a Class with a "W".....	May 19, 2028
Last Day to Change from Credit to Audit.....	May 19, 2028
Trimester Final Examinations.....	July 26- 30, 2028

ACADEMIC YEAR – 2028/2029

FIRST TRIMESTER

New Students Report.....	August 30- 31, 2028
New Students Registration.....	September 1, 2028
Continuing Students Registration.....	September 4, 2028
Classes Begin.....	September 4, 2028
Research Conference.....	September 6-8, 2028
Late Registration Fee in Effect.....	September 11- 15, 2028
Last Day to Enter Class.....	September 15, 2028
Last Day to Change from Audit to Credit.....	September 15, 2028
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 15, 2028
Heritage Week.....	September 17-23, 2028
Innovation & Entrepreneurship Week.....	October 1- 6, 2028
Week of Spiritual Emphasis.....	October 7-14, 2028
Huduma Day Holiday.....	October 10, 2028
Last Day to Drop a Class with a "W".....	October 19, 2028
Mashujaa Day Holiday.....	October 20, 2028
End of Trimester Senate.....	November 13, 2028
Trimester Examinations.....	November 27-30, 2028
Graduation.....	December 14- 17, 2028

SECOND TRIMESTER

New Students Report.....	January 10-11, 2029
New Students Registration.....	January 12, 2029
Continuing Students Registration.....	January 15, 2029
Classes Begin.....	January 15, 2029
Late Registration Fee in Effect.....	January 16, 2029
Last Day to Enter Class.....	January 24, 2029
Last Day to Change from Audit to Credit.....	January 24, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 24, 2029
Last Day to Drop a Class with a "W".....	March 9, 2029
Week of Spiritual Emphasis.....	March 9, 2029
Probable Eid al-Fitr Holiday.....	February 14, 2029
Good Friday.....	March 30, 2029
Easter Monday.....	April 2, 2029
End of Trimester Senate.....	April 9, 2029
Trimester Final Examinations.....	April 9-12, 2029

THIRD TRIMESTER

Registration.....	April 23-24, 2029
Classes Begin.....	April 24, 2029
Late Registration Fee in Effect.....	April 25, 2029
Labour Day Holiday.....	May 1, 2029
Last Day to Enter Class.....	May 4, 2029
Last Day to Change from Audit to Credit.....	May 4, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	May 4, 2029
Last Day to Drop a Class with a "W".....	May 18, 2029
Last Day to Change from Credit to Audit.....	May 18, 2029
Madaraka Day Holiday.....	June 1, 2029
Week of Spiritual Emphasis.....	June 10-16, 2029
Trimester Final Examinations.....	July 23- 26, 2029

ACADEMIC YEAR – 2029/2030

FIRST TRIMESTER

New Students Report.....	August 29-30, 2029
New Students Registration	August 31, 2029
Continuing Students Registration.....	September 3, 2029
Classes Begin	September 3, 2029
Research Conference.....	September 5-7, 2029
Late Registration Fee in Effect.....	September 10-14, 2029
Last Day to Enter Class.....	September 14, 2029
Last Day to Change from Audit to Credit.....	September 14, 2029
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	September 14, 2029
Heritage Week.....	September 16-21, 2029
Innovation & Entrepreneurship Week.....	September 30-October 5, 2029
Week of Spiritual Emphasis.....	October 6-13, 2029
Huduma Day Holiday.....	October 10, 2029
Last Day to Drop a Class with a "W".....	October 19, 2029
Mashujaa Day Holiday.....	October 20, 2029
End of Trimester Senate.....	November 19, 2029
Trimester Examinations.....	November 26-29, 2029
Graduation.....	December 13- 16, 2029

SECOND TRIMESTER

New Students Report.....	January 9-10, 2030
New Students Registration.....	January 11, 2030
Continuing Students Registration.....	January 14, 2030
Classes Begin.....	January 14, 2030
Late Registration Fee in Effect.....	January 15, 2030
Last Day to Enter Class.....	January 23, 2030
Last Day to Change from Audit to Credit.....	January 23, 2030
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	January 23, 2030
Last Day to Drop a Class with a "W".....	March 8, 2030
Week of Spiritual Emphasis.....	March 16-23, 2030
Probable Eid al-Fitr Holiday.....	February 14, 2030
Good Friday.....	March 30, 2030
Easter Monday.....	April 2, 2030
End of Trimester Senate.....	April 9, 2030
Trimester Final Examinations.....	April 9-12, 2030

THIRD TRIMESTER

Registration.....	April 23-24, 2030
Classes Begin.....	April 24, 2030
Late Registration Fee in Effect.....	April 25, 2030
Labour Day Holiday.....	May 1, 2030
Last Day to Enter Class.....	May 4, 2030
Last Day to Change from Audit to Credit.....	May 4, 2030
Last Day to Add or Drop a Course without Entry on Permanent Academic Record.....	May 4, 2030
Last Day to Drop a Class with a "W".....	May 18, 2030
Last Day to Change from Credit to Audit.....	May 18, 2030
Madaraka Day Holiday.....	June 1, 2030
Week of Spiritual Emphasis.....	June 9-15, 2030
Trimester Final Examinations.....	July 23- 26, 2030

Vice Chancellor's Message



Welcome to the University of Eastern Africa, Baraton (UEAB).

As we embark on the four academic years covered by this Bulletin, we reflect with gratitude on the last 46 years that UEAB has been in operation and give glory to God for His sustenance. We continue to thank the governing Council and Board of Trustees for their wise guidance that has seen UEAB continue to scale different heights of success in the areas of academic quality improvement, expansion of students' enrolment and faculty and staff development. We look forward to further development in the areas of digital technologies, industrial linkages and infrastructural development in the next four years, in line with the UEAB Strategic Plan.

You have made a wise decision to join UEAB for your University education. This is a clear demonstration of your confidence in the quality of the education system of the Seventh-day Adventist Church. In terms of focus, mission, vision and goals of UEAB, the institution is committed to developing the whole person including the mind, the body and the spiritual traits to prepare you for service to God and humanity. To achieve these goals and ideals, we undertake to first commit ourselves to God's guidance and to a dedicated service that will guide you in achieving your aspirations.

This Academic Bulletin is for the purpose of guiding the student on the undergraduate academic programmes on offer at UEAB. It does not in any way constitute a contract between the University and the student. However, unless a change is made, which will be communicated, the curriculum indicated under the various departments comprises the courses that one needs to take for the specific degree desired. You are required to register for the courses every semester/ trimester as per the specified course sequence.

Academic departments will provide check-lists to students for purposes of advising and monitoring, in order to assist each student to monitor their individual progress. Please ensure that you have a copy of your check-list.

The Administration, faculty, and staff are committed to the fulfillment of the goals and objectives outlined in this Academic Bulletin. We pledge to live up to your expectations, even as you play your part in your academic journey.

Once again, welcome to UEAB.

**Prof. Msafiri M. Jackson, BSc. (Eng.), MSc. (Eng.)
PhD (Env. Eng.), Reg. PE (T), FTAAS,
Vice-Chancellor**

1.1 PHILOSOPHY

The University of Eastern Africa, Baraton (UEAB) operates on the Seventh-day Adventist worldview, which holds that God is the Creator and Sustainer of the universe and life and is the source of true knowledge. The entrance of sin caused man's alienation from God; therefore, the restoration of man's relationship with God is the foundation of Christian education through a process of integration of faith and learning. This leads students into self-actualization and to discover and understand the truth through critical thinking.

1.2 MISSION

To provide and advance a holistic quality Christian education, which develops men and women to be earnest seekers of truth and equips them with appropriate knowledge, skills, and attitudes for service to God and humanity.

1.3 VISION

To be a leading center of excellence in higher education and research, producing world-class professionals equipped with moral virtues.

1.4 CORE VALUES

1. Integrity
2. Excellence
3. Teamwork
4. Professionalism

1.5 NATURE OF KNOWLEDGE

All true knowledge has its source in God and is made available to man through a variety of channels. This knowledge enables human beings to appreciate life and its challenges. This knowledge is derived from the past as well as from continuing research. The University seeks to provide opportunities for developing proficiency in discovering knowledge that is relevant to life.

1.6 THE ROLE OF THE UNIVERSITY

The institution is founded on principles, which address the needs of the society in which it functions; and to inculcate the institution's philosophy of education. This is achieved through programs aimed at developing educated citizens who can meet the needs of their respective communities and the Seventh-day Adventist church.

1.7 OBJECTIVES

Based on the foregoing statements, the University of Eastern Africa, Baraton is committed to achieving the following objectives:

1. Provide a balanced educational program that gives each student the opportunity to develop spiritually, mentally, physically, and socially;
2. Encourage the student to understand, appreciate, and adopt a Christian lifestyle and value system by:
 - a. Providing appropriate religious instruction and integrating faith and learning in the classroom;
 - b. Providing a variety of religious services and activities;

- c. Fostering an atmosphere where Christian principles find practical expression in all relationships.
3. Help the student to strive for mental excellence by:
 - a. Providing qualified faculty to guide the student in the pursuit of knowledge;
 - b. Developing intellectual curiosity, engaging in reflective thought, and maintaining the desire to reach the highest level of professional growth;
 - c. Refining mental abilities to enhance self-reliance.
4. Assist the student to achieve and maintain physical health by:
 - a. Guiding the student to attain a better understanding of healthful living;
 - b. Helping the student to appreciate the dignity of Labor and recognize the value of manual work;
 - c. Providing appropriate sports activities and encouraging the adoption of a personal exercise program;
 - d. Providing healthful food and living quarters.
5. Prepare the student to become a useful member of society by:
 - a. Promoting understanding and acceptance of persons from various backgrounds in the university community;
 - b. Helping to develop social skills that make for harmonious relationships with other people;
 - c. Emphasizing selfless service as the goal of life;
 - d. Encouraging the application of knowledge within the students' societal context.
6. Equip the student for:
 - a. An active role in the mission of the Seventh-day Adventist Church;
 - b. Service-centered vocations and professions which contribute to the betterment of society;
7. Provide adequate facilities and infrastructure for quality education, such as library, internet, Laboratories, research facilities, classrooms, and buildings to support the various curricula and syllabi.

1.8 HISTORY

Before 1978, there was no Adventist University in East Africa and for this reason; students desiring to pursue higher education in an Adventist institution had to go outside Eastern Africa. During the 1970's, the Middle East College in Beirut, Lebanon, served many such students. Therefore, there was a great need for a full-fledged university in Eastern Africa. The Government of Kenya allotted 339 acres of the then Baraton Animal Husbandry Research Station in Nandi County to the Seventh-day Adventist Church for the purpose of establishing what is now known as the University of Eastern Africa, Baraton. The Lebanese civil war caused instability in Middle East College and consequently, in October 1978, the Afro-Mideast Division of Seventh-day Adventists took a decision to establish a University College in Kenya on December 21, 1978 and almost all lecturers at Middle East College relocated to the University College of Eastern Africa, Baraton including Dr. Percy Paul who later became the first Principal/Vice-Chancellor of the University College of Eastern Africa, Baraton then affiliated to Andrews University, USA. Classes began in September, 1979, in the temporary farm structures. Some of these structures have since been replaced with modern buildings.

The Commission for Higher Education of Kenya granted accreditation in 1980 and this allowed the university to operate as a University College of Andrews University. Therefore, from 1980 to 1991, the University College was affiliated to Andrews University, Michigan, USA and offered four-year Bachelor's degree programs.

In 1991, the Government of Kenya granted a charter allowing the University to award her own degrees. Thus, the institution became the first private university in Kenya to be granted a Charter by the then President of the Republic of Kenya, His Excellency the late Hon. Daniel Toroitich arap Moi.

The University is accredited by the Commission for University Education, Nursing Council of Kenya, Public Health Officers and Technicians Council of Kenya, Kenya Nutritionists and Dieticians Institute, Kenya Medical Laboratory Technicians and Technologists Board and the Adventist Accrediting Association (AAA).

The University serves students from all over the world. It admits qualified students regardless of their religious background, provided such students accept the Christian principles and lifestyle which form the basis for the University's educational philosophy and life.

1.9 ACCREDITATION

The University of Eastern Africa, Baraton, is an institution of higher learning fully accredited by the Commission for University Education and the Adventist Accrediting Association of the Seventh-day Adventist Schools, Colleges and Universities, and was chartered by the Government of the Republic of Kenya on March 28, 1991. It is also a member of the Commonwealth Association of Universities, and the Inter-University Council for East Africa.

1.10 GOVERNANCE

The University is owned and operated by the Seventh-day Adventist Church. The University Chancellor is the President of the East-Central Africa Division of the General Conference of the Seventh-day Adventist Church. It is governed by the Board of Trustees and the University Council, which does their work through the Administrative Board and the Senate, both chaired by the Vice-Chancellor, who is the Chief Executive Officer of the University.

1.11 SUPPORT

The University of Eastern Africa, Baraton, is supported by the Seventh-day Adventist Church. The University welcomes gifts and bequests from philanthropists for the purpose of providing student aid and scholarships, and for developing and improving its facilities and programs.

1.12 SISTER INSTITUTIONS

The University is a unit in a comprehensive system of the Seventh-day Adventist institutions throughout the world operating under the auspices of the Seventh-day Adventist World Church (General Conference of Seventh-day Adventists). The system includes more than 5500 primary schools and more than 1500 secondary schools. The church also operates more than 100 colleges and universities worldwide. Some of these are:

1. Adventist University of Africa, Kenya
2. Adventist University of Central Africa, Rwanda
3. Adventist University of the Philippines, Philippines
4. Andrews University, United States of America
5. Avondale College, Australia
6. Babcock University, Nigeria
7. Bugema University, Uganda
8. Burman University, Canada
9. Ethiopia Adventist College, Ethiopia
10. Helderberg College, South Africa
11. Loma Linda University, United States of America
12. Malawi Adventist University, Malawi
13. Newbold College, England
14. Oakwood University, United States of America
15. Sahmyook University, South Korea
16. Saniku Gakuin College, Japan
17. Seminaire Adventiste du Saleve, France
18. Solusi University, Zimbabwe
19. Spicer Adventist University, India
20. Universidad Adventista de Chile, Chile
21. Univerisdad Adventista del Plata, Argentina
22. University of Arusha, Tanzania
23. Valley View University, Ghana

1.13 ADMISSIONS

Since the University of Eastern Africa, Baraton, is owned and operated by the Seventh-day Adventist Church, it has a special responsibility to serve its constituency. Admission into the University, however, is open to any student desiring quality education and willing to abide by the policies and culture of the University. Admitted students are required to co-operate with the leadership of the University.

Formal application is made on an official form supplied by the University. The application can also be done online via the University website (www.ueab.ac.ke). This is submitted to the University along with transcripts, certificates, diplomas, references and other relevant documents as may be required by the Admissions office to show academic aptness. The University acts only on those applications which are complete with all supporting documents including references. Only those applicants who meet the academic and character requirements of the University and who express willingness to comply with its policies and regulations are considered for admission.

1.14 COURSES OF INSTRUCTION

The University of Eastern Africa, Baraton, offers a variety of courses listed under the various schools and departments either as a major or minor area:

1. SCHOOL OF BUSINESS

a. Department of Accounting and Finance

- i. BBA Accounting
- ii. BBA Finance
- iii. Minor in Accounting
- iv. Minor in Finance

b. Department of Information Systems and Computing

- i. Bachelor of Business Information Technology (BBIT)
- ii. BSc Software Engineering
- iii. BSc Cybersecurity and Networks
- iv. BSc Information Technology
- v. Minor in Management Information Systems
- vi. Minor in Computer Science

c. Department of Management

- i. BBA Management
- ii. BBA Marketing
- iii. BBA Office Administration
- iv. Minor in Economics
- v. Minor in Management
- vi. Minor in Marketing

2. SCHOOL OF EDUCATION, HUMANITIES AND SOCIAL SCIENCES

a. Department of Education

- i. BEd (Arts) in the following Secondary School/ College teaching subjects: English Language; Literature; Kiswahili; Religion; History; Geography.
- ii. BEd (Sciences) in the following Secondary School/ College teaching subjects: Mathematics; Biology; Home Science; Chemistry; Agriculture; Physics.

b. Department of Humanities and Social Sciences

- i. BA Counseling Psychology
- ii. BA Development Studies
- iii. BA English
- iv. BA French
- v. BA/BSc Geography
- vi. BA History
- vii. BA Kiswahili
- viii. BA Journalism and Mass Communication with options:
 - 1. Print Media Specialization
 - 2. Electronic Media Specialization
 - 3. Public Relations and Advertising
- ix. BA Music
- x. Bachelor of Music in Music Education (BMus.Mus.Ed)
- xi. Minor in Counseling Psychology
- xii. Minor in Development Studies
- xiii. Minor in Electronic Media
- xiv. Minor in English
- xv. Minor in Environmental Studies
- xvi. Minor in French
- xvii. Minor in Geographic Information Systems (GIS)
- xviii. Minor in Geography
- xix. Minor in Health Psychology
- xx. Minor in History
- xxi. Minor in Kiswahili
- xxii. Minor in English Literature
- xxiii. Minor in Music
- xxiv. Minor in Political Science
- xxv. Minor in Print Media
- xxvi. Minor in Psychology
- xxvii. Minor in Public Relations and Advertising
- xxviii. Minor in Social Work

c. Department of Theology and Religious Studies

- i. BA Theology
- ii. BA Religion
- iii. Minor in Religion

3. SCHOOL OF NURSING & HEALTH SCIENCES

a. Department of Medical Laboratory Sciences

- i. BSc Medical Laboratory Sciences
- b. Department of Nursing
- a. BSc Nursing

b. Department of Public Health

- i. BSc Public Health
- ii. Minor in Public Health

c. Department of Foods, Nutrition and Dietetics

- i. BSc Foods, Nutrition, and Dietetics
- ii. BSc Hotel and Hospitality Management
- iii. Minor in Foods, Nutrition and Dietetics

5. SCHOOL OF SCIENCE AND TECHNOLOGY

a. Department of Biological Sciences and Agriculture

- i. BSc Agriculture
 - 1. Animal Science Option
 - 2. Crop and Soil Science Option
 - 3. General Option
 - 4. Horticulture Option
- ii. BSc Agribusiness
- iii. BSc Agriculture Technology
- iv. BSc Biology
- v. BSc Bio-Medical Science
- vi. BSc Biotechnology
- vii. BSc Environmental Conservation
- viii. Minor in Agriculture
- ix. Minor in Biology

c. Department of Mathematics, Chemistry and Physics

- i. BSc in Chemistry with options:
 - 1. Analytical Chemistry
 - 2. Analytical Chemistry with Management
 - 3. Biochemistry
 - 4. Industrial Chemistry
 - 5. Industrial Chemistry with Management
 - 6. General Chemistry
- ii. BSc Mathematics
- iii. Minor in Analytical Chemistry
- iv. Minor in Biochemistry
- v. Minor in General Chemistry
- vi. Minor in Industrial Chemistry
- vii. Minor in Mathematics
- viii. Minor in Physics
- ix. Minor in Applied Statistics

d. Department of Technology

- i. BST Automotive
- ii. BSc Aviation Management
- iii. BSc Fashion and Textile Design
- iv. BST Electronics with options:
 - 1. Communication Electronics
 - 2. Industrial Electronics
- i. Minor in Electronics Technology
- ii. Minor in Hotel and Hospitality Management
- iii. Minor in Fashion and Textile Design

1.15 BULLETIN DEFINITIONS

1.15.1 CORE COURSES

These are specific compulsory courses within an academic program or specialization designed to provide the basic skills, knowledge, understanding and expertise in the field of study

1.15.2 COGNATE COURSES

These are courses which are related or allied to the courses that support or provide knowledge in understanding or

applying the core courses. They are usually courses from other areas of study other than the major field of study.

1.15.3 ELECTIVE COURSES

These are courses that are in addition to the core requirements of a program from which a student chooses a number of credits as specified in a given degree program

1.15.4 SPECIALIZATION

These are additional courses to the core requirements that enhance expertise in a given degree program.

1.15.5 PREREQUISITES

Courses that must be taken and passed prior to registration of a higher related course in a given degree program.

1.15.6 CO-REQUISITES

This is a related course that must be taken at the same time as another related course e.g. Science theory and Science Practical.

1.15.7 SEMESTER

A span of sixteen (16) weeks comprising registration, instructional activities, and examinations.

1.15.8 TRIMESTER

A span of fourteen (14) weeks comprising registration, instructional activities, and examinations. The trimester system is for students taking Bsc Nursing.

2.0 Degree General Information

The University of Eastern Africa, Baraton offers academic programs leading to Bachelor of Arts (BA), Bachelor of Business Administration (BBA), Bachelor of Business Information Technology (BBIT), Bachelor of Education (BEd) Arts, Bachelor of Education (BEd) Sciences, Bachelor of Science (BSc), Bachelor of Science in Technology (BST), Master of Business Administration (MBA), Master of Education (MEd), Master of Science (MSc), Master of Public Health (MPH) and Doctor of Philosophy (PhD) in Education and in Business.

The University also offers a Post Graduate Diploma in Education (PGDE).

In addition to concentrating on his/her field of special interest, the student pursuing any degree also takes a broad range of basic courses, referred to as general education requirements.

2.1 GENERAL EDUCATION REQUIREMENTS

2.1.1 Philosophy/Rationale

General Education requirements are intended to give students a broad view of knowledge and certain useful skills which are common to liberal arts education. The requirements affirm a wholistic approach to the development of the student by cultivating the intellectual, spiritual, physical and social abilities.

General Education requirements will assist the student to construct a thoughtfully conceived worldview that recognizes the roles of Scripture, and nature as sources of truth.

2.1.2 General Education Goals

Goals of the General Education requirements will be achieved through the following General Undergraduate Curriculum:

1. **Religion** - From the study of faith, ethics and doctrine, students will gain an experiential understanding of God's divine plan for their lives.
2. **Language and Communication** - Through practice, students will develop strategies for effective oral and written communication.
3. **Arts and Humanities** - These will help students understand how civilization expresses itself.
4. **Social Sciences** - The Social Sciences will help students understand different facets of human behavior.

5. **Natural Sciences** - Through Natural Sciences students will experience the scientific method of studying the natural universe and the current way of understanding it.
6. **Mathematics and Computer Science** - Will help students to develop the logical, mathematical, and computer skills vital to life in a modern world.
7. **Vocational Skills** - These will assist students acquire skills necessary for vocation.
8. **Health Principles** - Students will apply the principles of health and fitness to their lives.
9. **Environmental Awareness** - This will assist the students to understand environmental problems and what can be done to avoid them.
10. **Keyboarding** - The students will develop basic typing skills useful in the academic world.

Note: Nursing, Public Health and Medical Laboratory Sciences students should take the course INSY108 instead of INSY107.

2.1.3 General Education Requirements - 41 Credits

Every student of UEAB is required to take the following General Courses in addition to the required courses listed under the student's major area of study:

LANGUAGES		6
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills in Kiswahili Or	2
FREN 105	Beginning French II Or	2
KISW 105	Beginning Kiswahili I	2
ARTS		2
MUGR 100	Music Appreciation Or	2
LITE 151	Introduction to Literary Appreciation	2
BUSINESS		2
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
EDUCATION		3
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HEALTH SCIENCES		1
HLED 110	Health Principles	1

NATURAL AND APPLIED SCIENCES			14
AGRI 105	Principles of Agricultural Technology		2
BIOL 105	Human Biology		2
INSY 107	Information Technology Today		2
INSY 108	Information Technology for the Health Professionals		2
COSC 111	Computational Mathematics I Or		3
MATH 100	Foundations of Mathematics		3
PHYS 100	Concepts of Physical Sciences		3
ENVIRONMENT			2
ENVI 227	Environment and Society Or		2
CHEM 200	Environmental Chemistry Or		2
TCED 231	Safety Education		2
RELIGION			9
RELB 220	Life and Teachings of Jesus		2
RELH 155	Adventist Heritage		2
RELT 207	Christian Beliefs		3
RELT 255	Introduction to Christian Ethics		2
HISTORY			2
HIST 111	Concepts of World Civilization Or		2
HIST 119	Issues in Development Studies		2
SOCIAL SCIENCES			2
PSYC 101	Introduction to Psychology Or		2
SOCI 121	Introduction to Sociology Or		2
SWFI 207	Family Issues		2
VOCATIONAL SKILLS			1
Any One of the Following Vocational Skill:			
AGEN 235	Tractor Operations and Maintenance		1
AUTO 100	Personal Auto Care		1
AUTO 110	Automobile Driving		1
ELCT 100	Basic Electronics Maintenance		1
FTXD 108	Weaving		1
FTXD 107	Quilting		1
FTXD 121	Creative Fashion Crafts Laboratory		1
FDNT 115	Cooking		1
FDNT 120	Basic Cake Preparation and Cake Decoration		1
WOOD 100	Woodwork		1
MUGR 101	Music Instrument		1
Total General Requirements			41 Credits

2.1.4 Guidelines for Meeting General Education Requirements

1. A religion class is to be taken each year in residence until the General Education Requirement for religion is met. Students attending UEAB for less than four years must take all required religion General Education Requirements.
2. Other than the two religion classes to be taken during the third and fourth year, all General Education Requirements are to be taken during the first two years of residence.
3. No student will be allowed to register for any project or research classes without taking ENGL 105.

2.2 MAJOR AND MINOR

A Major is the student's area of specialization. A Minor is a second area of emphasis, but the course work is not as extensive as that of a Major. **NOTE:** In the Summary section of each degree program that has a minor, the minor is listed

as 30 credits. This is an average of the number of credits in a minor. The minor the student chooses may have more or less credits, so the total number of credits for the degree will have to be adjusted according to the number of credits in the chosen minor.

The specific requirements for areas of study are listed under the respective departments in the section entitled Courses of Instruction.

2.3 SELECTION OF A MAJOR

For better planning every student who is not sure what he/she wants to take is required to select his/her major area by the time he/she completes the sophomore year (second year) and before beginning the junior or third year. For better planning every student must choose his/her major at the time of joining the university. In case he/she wants to change his/her major area, he/she should do so by the end of sophomore year (second year). This will give the students ample time to concentrate on their major areas during their last two years of study. Students are also advised to complete all general education requirements during their first and second years.

2.4 CREDIT HOURS REQUIRED FOR DEGREE

A bachelor's degree requires 132 to 153 semester/trimester credit hours except for those programs regulated by professional bodies. For a student who presents no transfer credits, this will require four regular academic years to complete a bachelor's degree as shown in the typical example below:

School Year	Semester I Credits	Semester I Credits	Inter-Semester	Total for Year
1 st	18	18		36
2 nd	18	18		36
3 rd	18	18	6 (Education Students)	36/42
4 th	18	18		36
Total Semester Credits				144/150

NURSING STUDENTS				
School Year	Semester I Credits	Semester I Credits	Trimester III credits	Total for Year
1 st	21	21	12	53
2 nd	11	11	11	33
3 rd	11	11	11	33
4 th	11	11	12	34
Total Semester Credits				153

Education students do their teaching practice of six credits during the inter-semester between their third and fourth years to reach the total of 150 credits.

If a student for some reason is unable to carry the normal load of classes for one or more semesters, or fails to complete required courses when scheduled, the course may be prolonged beyond the four years.

3.0 Academic Information

3.1 CREDIT HOURS AND THE SEMESTER

The University of Eastern Africa, Baraton, except for the Department of Nursing, operates on the semester system, each semester being approximately 16 weeks in length. The value of each course offered is expressed in terms of semester credit hours. One semester credit hour is equivalent to 15 contact hours in a semester. The student is expected to spend a minimum of two hours of outside preparation for each class period.

Every academic year consists of two regular semesters of sixteen weeks running between the end of August and beginning of May, and an eight-week inter-semester. One day is equivalent to one week in inter-semester sessions which usually run from the second week of May up to the last week of June.

3.2 CREDIT HOURS AND THE TRIMESTER

Due to the nature of the program, the Department of Nursing operates on the trimester system with each trimester being approximately 14 weeks in length, however the value of each course offered is expressed in terms of trimester credit hours. One trimester credit hour is equivalent to 15 contact hours. The student is expected to spend a minimum of two hours of outside preparation for each class period.

Every academic year consists of three trimesters running between August and July.

3.3 CLASS SIZE

The minimum class size for any undergraduate course shall be as follows:

1. Regular instructor 20 students
2. Adjunct instructor 20 students

Any exception requires approval of the Academic Standards Committee.

Dividing a class into sections for larger classes will be approved by the Academic Standards Committee.

3.4 COURSE NUMBERS

- 100-199** Courses usually taken during freshman year:
lower division
- 200-299** Courses usually taken during sophomore year:
lower division
- 300-399** Courses usually taken during junior year:
upper division
- 400-499** Courses usually taken during senior year:
upper division

Courses ending with numbers 1 or 2 for example CHEM 121 and CHEM 122 are sequence courses and must be taken in that order. Upper-division requirements for the degree are met by courses numbered 300 and above. Students are expected to follow this order in their course progression in tandem with the degree four-year course offering.

Generally, odd numbered courses are to be taken during the first semester and even-number courses are to be taken during the second semester.

3.5 STUDENT'S GOVERNING BULLETIN

A student will normally graduate either under the Bulletin in force when he/she first entered the University of Eastern Africa, Baraton, or a subsequent Bulletin if the student chooses and the department approves. A student must meet all the requirements of the Bulletin in force or the subsequent Bulletin he/she chooses. However, if there are changes in the course code, course credit hours, and graduation requirements, the student must follow the current bulletin. When the course requires a passing grade which was not stipulated in the student's governing bulletin, the requirement in the current bulletin must be adhered to. Similarly, if a course appearing in the previous student's bulletin has been deleted, the student should follow the requirement as stipulated in the current bulletin. If, as a result of some changes made, a student lacks the stipulated minimum credit hours for graduation, the student must take extra hours from the relevant area(s) of his/her choice, in consultation with the academic advisors.

A student whose enrollment lapses for more than one academic year (two semesters or more) is required to re-enter under the bulletin in effect at the time of he/she re-joining the UEAB program.

3.6 BULLETIN REGULATIONS AND ANNOUNCED CHANGES

The stipulations in this Bulletin should not be considered as a final contract between the student and the University. The University reserves the right to make any changes it deems necessary at any time. All such changes adopted or made by the University administration, then communicated to the University community, have the same force as the regulations published in the University bulletin.

3.7 ACADEMIC ADVISORS/CURRICULUM LEADERS

A student will be assigned an academic advisor who will chart the student's progress until he/she is ready for graduation. Officially, the chairperson/curriculum leader is the principal academic advisor. The chairperson is expected to assign qualified teachers to advise students. A student will also be assigned a second advisor if he/she is doing a double major or a minor.

One of the functions of the academic advisor is to review the student's academic progression during each semester and advise the student accordingly.

At the beginning of each semester/trimester the student must see his/her advisor who will verify the courses on the student's check sheet to be taken during the semester/trimester and advise accordingly. Students who do double majors are advised by both advisors of their respective degree programs. Students who would like to do a double major should apply before the end of their second year of study using the forms from the UEAB website.

3.8 CURRICULUM CHECKLIST AND FOUR-YEAR COURSE OFFERINGS

A curriculum checklist is a list of courses a student is required to take to graduate. This checklist lists and categorizes courses as General Requirements, Core, Major, Specialization, Cognates

and Electives. The second list the student is given is the proposed four-year course offerings timetable. Checklists and proposed four-year course offerings timetables are issued by the respective departments upon admission.

3.9 ACADEMIC PROGRESS

1. It is the responsibility of every student to check their grades/academic performance online as soon as the grades are released.
2. Any student with a failing grade must retake the course the next time it is offered.
3. Students should apply for graduation immediately after the completion of registration for the first semester of their final year. Graduation in absentia is generally not allowed but may be granted under special circumstances with Senate approval.

3.10 CLASSIFICATION OF STUDENTS

1. **Freshman:** A beginning student in the University.
2. **Sophomore:** A second year student with at least 36 credit hours earned or accepted.
3. **Junior:** A third year student with at least 72 credit hours earned or accepted.
4. **Senior:** A fourth year student with at least 108 credit hours earned or accepted and with all graduation requirements completed or properly planned as to be completed during the fourth year.

3.11 DURATION OF PROGRAM

The duration of completion of a degree program will not exceed six years. In the event that six years elapse before the student completes the requirements of the degree, the student must seek readmission. The total number of years should not exceed eight years. A student who does not complete their undergraduate degree in eight years can appeal to the Senate to be allowed to finish their degree, and the decision of the Senate will be final.

A student who has no more than one semester to complete his/her studies may use the bulletin under which they were previously studying. All others must re-enter under the bulletin in place when study recommences.

3.12 RESIDENCE REQUIREMENTS

A student transferring from another recognized institution to UEAB must take all his/her upper division courses at UEAB. Any departure from this must be approved by the Academic Standards Committee.

3.13 TRANSCRIPTS

The Registrar's Office issues transcripts of the student's academic record on written request by the student, but no transcript can be issued until all financial obligations to the University are met. The first transcript is free. There is a fee for all subsequent transcripts.

4.0 Entrance Requirements

4.1 DIRECT ENTRY

The minimum entrance requirements for the first degree under direct entry qualifications are:

1. Kenya Certificate of Secondary Education (KCSE) or equivalent:
 - a. A minimum mean grade of C+ (plus) or its equivalent.
 - b. A minimum grade of C+ in English. Any student who does not meet this requirement must take the English Placement Test.
 - c. Meeting the entrance requirements for the preferred area of study.
2. Advanced Certificate of Secondary Education (A-Level Certificate):
 - a. A minimum of two principal passes and one subsidiary pass.
 - b. Meet the consideration for the area of study.

Some programs and departments may require applicants to go through oral and written interviews.

4.2 DIPLOMA HOLDERS

Candidates who do not meet the minimum requirements for direct entry but have completed a diploma program may be admitted if they meet the following requirements:

1. Applicants with at least a credit pass or GPA of 2.33 in a diploma program from recognized institutions and with a mean grade of at least C- (minus) at the KCSE or its equivalent may be admitted into undergraduate programs. For programs regulated by professional bodies, their entry requirements apply.

2. Applicants with at least a credit pass in a certificate program from a recognized institution and have done a diploma program from a recognized institution with a minimum grade of D (Plain) at the KCSE or its equivalent may be admitted.

4.3 RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) is a process used to identify, assess and certify a candidate's knowledge, skills and competencies regardless of when, where and how they were acquired against prescribed standards or learning outcomes. The aim is to provide for recognition or validation for entry into a program of study, employability, up-skilling and reskilling.

The RPL focuses on the outcomes rather than how, when or where the learning occurred. It gives a person credit for skills and knowledge acquired at school, at work, at home, informal sector or through clubs and hobbies.

4.4 ADMISSION OF INTERNATIONAL STUDENTS

The University welcomes students from different countries on its campus. International students must meet all admission requirements for the programs they wish to undertake. Official transcripts should be mailed to the Assistant Registrar of Admissions. If the transcripts are in a language other than English, official translations must be provided. Detailed information about the admission of international students to UEAB can be obtained from the university website www.ueab.ac.ke or can be requested through admissions@ueab.ac.ke. You may also reach us through +254714333111/ +254781333777.

Applicant's academic documents will be subjected to recognition and equation by relevant government bodies in Kenya at a fee.

4.5 ENGLISH PROFICIENCY REQUIREMENT

Since English is the language of instruction at UEAB, proof of proficiency in it is required of all applicants. Students whose language of instruction has not been English will be required to take a proficiency test in English.

The University of Eastern Africa, Baraton offers remedial English courses for students whose English proficiency is low.

4.6 DOCUMENTS SUBMITTED FOR ADMISSION

All documents which are submitted by a student seeking admission to the University become the property of the University of Eastern Africa, Baraton, and are kept in the student's permanent file. Certified copies are acceptable if the student wishes to keep the originals, but in such cases, the originals must be presented at the time of registration, graduation, and at any other time as may be required by the Registrar or other officials of the University. Both the original and certified copies must be presented together at the time of registration. The University will retain the certified copy in the student's permanent file.

4.7 CATEGORIES OF SPECIAL STUDENTS

A special student is one who is not a regular student of UEAB. The following categories of special students are identified:

1. Persons, who qualify for regular standing for university programs but do not wish to register for a full degree program, but wish to take some courses as an audit. Such persons should complete application forms as required for regular students.
2. Persons who are already university students elsewhere but would like to take some classes at UEAB. Such students

should fill the "Special Student Application Form" from the Registrar's Office.

3. Persons who already possess degree qualifications but wish to broaden their knowledge by taking particular courses at UEAB. Such students should fill the "Special Student Application Form" from the Registrar's Office.
4. Mature individuals who may not qualify for regular admission to the university, but who may wish to benefit from university classes, may on rare occasions be admitted into certain courses and be classified as "special students". Students in this category will not be required to do quizzes, tests or examinations; but they are expected to attend all lecture sessions and do the assignments in order to get a certificate of attendance at the end of the semester. Their work does not count toward a degree. Should a degree be required, the student must acquire admission requirements and seek regular admission. Once admitted, all courses taken under special student status must be repeated for credit.

The University of Eastern Africa, Baraton, welcomes local and international students who may wish to take courses on short term basis (one or two semesters) with the intention of transferring the earned credits to their regular institutions, or elsewhere. However, like regular students, they must meet all admission and financial requirements. Such students must abide by the policies and regulations of the University which govern the behavior, conduct and character of students. More information about visiting students may be obtained from the Assistant Registrar for Admissions through admissions@ueab.ac.ke or +254714333111/ +254781333777

Students in categories under 1, 2, and 3 above will be expected to do all the work, quizzes and examinations together with regular students. The credits they acquire at UEAB may be credited towards a degree program if they wish.

5.0 Registration

5.1 REGISTRATION PROCEDURE

Students are expected to register during the time specified in the Academic Calendar. Registration is not official until all procedures specified are completed. Students shall attend only those classes for which they are registered. It is illegal to attend a class for which registration has not been done. The procedure for the registration exercise for new/continuing is/are as follows:

1. Obtain registration checklist at the Registrar's Office (new students).
2. Visit the Information Technology Services Department for UEAB email activation (new students only).
3. Visit the Student Finance Office for fee clearance. (New Students).
4. Visit the Deputy Vice Chancellor Student Affairs office to sign commitment form, room allocation, and collection of student handbook (New students only).
5. Visit Jeremic Hospital for your medical check-up. (New students only).

6. Visit your Major advisor for course checklist.
7. Visit designated online registration stations for creation of iCampus student account.
8. Create iCampus student account on www.icampus.ueab.ac.ke (New students only).
9. Log in to your iCampus account using your student ID number.
10. Click on Semester Registration
11. Select Open Registration
12. Select your Level of study.
13. Select your residence and your room number if you are a boarding student.
14. Select your Sabbath School class
15. Select courses carefully according to the course checklist provided by Major advisor to avoid any changes, and finalize registration by clicking the 'Close Registration' button.
16. Consult your Major advisor/HOD for approval of your registration.
17. Confirm your registration by printing **Certificate of Registration**. Always sign the Certificate of Registration

and submit it to your HOD for signing and thereafter have a copy of the same for future use.

18. Your class timetable icon is available on iCampus account.

Note: If you have any problem with your registration, contact your **Major Advisor/Head of Department**.

5.2 LATE REGISTRATION

Students who are not fully registered within the designated dates outlined in the Academic Calendar or Calendar of Events will incur a late registration fee of Kshs.500 per day, increasing until "Last day to enter any class".

No student will be permitted to register after the date published in the Academic Calendar as the "Last day to enter any class".

5.3 CHANGES IN REGISTRATION

A student who wishes to make changes in course selection after completing registration will seek assistance from the Head of the Department. A fee may be charged for changes. The Head of the Department will assist you through the registration process for course selection.

When courses are dropped after the last date to enter a class but before the published "Last day to drop a class with W", a W will be recorded and you will be charged for that course.

If any course is dropped after the last date to drop with a W, a grade of F is recorded (refer to "Refunds" under Financial Information).

The procedure for dropping/adding a course is as follows:

Visit your Head of Department for any changes to courses selected initially. **Remember to print an updated (Certificate of Registration)** if you had done add/drop. Sign the **new Certificate of Registration** and submit it to your HOD for signing and thereafter have a copy of the same for future use. Courses cannot be added after the deadline to add courses, i.e. eight days from the date of registration

Students who withdraw within the withdrawal period as specified in the Academic Calendar/Calendar of events from any or all the classes and from the boarding section during the semester may receive some refunds on charges for tuition, room and board. For details, refer to "Refunds" under Financial Information.

5.4 COURSE LOAD FOR REGULAR STUDENTS (FULL-TIME)

The normal course load for regular students is 18 credit hours for a 16-week regular semester. For nursing students, the normal load is 14 credit hours.

5.5 COURSE LOAD FOR SCHOOL-BASED STUDENTS AND FOR INTERSEMESTER

Students who enroll for the school-based classes and those pursuing their study programs through evening classes will be allowed to register for a maximum of 12 credits as follows;

1. In-Service student's 9-12 credits
2. Inter-semester 9-12 credits with a maximum of 6 credits each session.

5.6 CRITERIA FOR OVERLOAD

A normal course load is 18 credit hours. The total maximum load that a student can take in a semester is 21 credits. For nursing students on the trimester system, the normal course load is 14 credits. The maximum number of credits a student can take in a trimester is 17 credits. Please note that the cumulative GPA should be above 3.00 to qualify for taking an overload

5.7 WORK AND STUDY LOAD

Students on work program will be asked to adjust the class load as follows

Hours of work per week	Maximum Semester credit hours	Maximum Trimester credit hours
10 - 20	16	12
21 - 30	12	8

6.0 Attendance

6.1 ATTENDANCE REGULATIONS

Absences are counted from the first day of class and are classified as excused or unexcused. Excused absences involve reasons of illness, authorized university trips or circumstances beyond the student's control. Absences for health reasons should be cleared through the University doctor and the signature of the doctor on the sick sheet must be obtained. Absences for any reason other than those mentioned above are considered unexcused, including not completing registration due to lack of school fees.

Class work such as quizzes, labs and tests missed during an excused absence should be made up through arrangements with the lecturers involved. If a student's total number of absences excused and/or unexcused exceeds 15% of both theory and/

or practical (for courses with labs and clinicals) of the total class meetings in a course, the student will not be allowed to sit for the final examination, a grade of F shall be awarded and the student must repeat the course. If such a student sits for the final examination without settling the absence issues, that examination will be null and void, and the student still receives an F grade. Such an F grade can be suppressed only by repeating the course. If special circumstances justify it, the Academic Standards Committee may grant permission for the student to complete missed coursework and take the final examination.

More the 15% of absences due to sickness or other unforeseeable circumstances and if it is within the first 8 weeks since the date when classes begin as per the calendar of events stipulated in this bulletin, the student shall be required to withdraw registration as per withdrawal policy. refer 8.1.6

6.2 TARDINESS

Three incidences of tardiness are counted as an absence, and entering after 15 minutes have passed, or missing 15 minutes or more from a class is considered an absence.

6.3 ASSEMBLY ATTENDANCE REGULATIONS

The weekly assembly is considered to be an important part of the student's academic experience, and attendance is therefore required. More than three absences from assembly in a given Semester/Trimester shall result in suspension.

7.0 Examinations

7.1 FINAL EXAMINATIONS

The last week and a half of the semester and the last week in the trimester are reserved for writing final examinations. During this period no off-campus field trips may be scheduled. The period should be devoted to the completion of course projects and final examinations only.

All final examinations carry 60% (for lab courses: lab 20% and theory 40%) of the final grade and continuous assessment carries the remaining 40%. All students who are registered for the semester are allowed to do the final examinations subject to meeting financial requirements, however attendance policy applies according to 6.1.

No student is allowed to enter the examination center without a valid student identity card, and approval from course lecturer

Impersonating another student or using someone else's student identity card to gain access to the examination center is a serious act of academic dishonesty and will be addressed in accordance with the policy. Refer to 11.0

7.2 SESSIONS FOR FINAL EXAMINATIONS

All final examinations are held in a specified venue. The length of the exam is determined by the number of credits for a class.

1. One credit class - one-hour final exam.
2. Two credit class - two-hour final exam.
3. Three credits or more - three-hour final exam.

Students are required to read the examination time table carefully and correctly to avoid missing any examination. An F shall be assigned for any examination missed due to misreading the examination time table or failing to take the examination for any other reason without prior official approval.

7.3 SPECIAL EXAMINATIONS

A special examination is only for students who missed their final examinations due to sickness or loss of close family member (nuclear/ guardian family member). special exams approval will not be granted to students who missed their final examinations due to a lost, misplaced, or expired student identity card. Exceptional cases will be reviewed and addressed by the ASC.

Special Examinations will cover the same content of the examination that was missed but will not be the same exam. Application for special examination should be done immediately by the student or a friend or staff/faculty after missing the final examination for a course. A student can only take the special examination after successful application and approval by ASC. A fee of Kshs 1,000.00 will be charged for each Special Exam, which must be taken at the beginning of the subsequent semester.

Failure to take the special exam in the subsequent semester will require the student to repeat the course, with a grade of F awarded for the missed examination.

If a student is unable to take the special examination due to valid reasons, they may submit a request for an extension through ASC, accompanied by supporting documents verifying their inability to appear for the special examination. However, the extension period must not exceed one academic year from the date of course registration.

A student is not permitted to request both a Special Examination and an Incomplete Work (IW) for the same course. Exceptional cases must be presented to the ASC for approval.

7.3.1 Submission of Change of Grade after Special Examinations

The lecturer submits the grades online, which is approved online by the HoD, Dean and the Registrar

Students can monitor the progress of their grade change request through their student portal.

Special examination grades must be submitted by the course lecturer within one week of the examination date. Failure to submit grades within one academic year from the course registration date will render the special exam grade null and void.

7.4 SUPPLEMENTARY EXAMINATIONS

A Supplementary Exam is an additional examination for a student who has sat for the final exam and failed to attain a passing grade in a course. This is a second chance to pass the course.

Supplementary Examinations are scheduled after the formal exam period and shall not be available for all courses, or for all examination types. A supplementary examination shall be similar to the final examination in length and degree of difficulty and will be moderated. Like the final exam, it will be moderated.

Supplementary examination will be allowed only for courses which have written final examinations. There will be no supplementary examination for Labs and Practicals.

For core and cognate Nursing courses that have both theory and practical components, a student who fails the theory component is permitted to take a supplementary exam. However, a student who fails the practical component will not be allowed to take a supplementary exam but will be required to retake the entire course.

74.1 Eligibility for Supplementary Examinations

Generally, to be eligible for a supplementary exam, a student must have sat for the final exam, failed to achieve a passing grade, and done continuous assessment tests. However, the Academic Standards Committee may, in exceptional circumstances, grant a supplementary exam to a student who does not meet these criteria.

The Specific eligibility criteria that a student should meet to be considered for a supplementary exam are:

- The student must be an undergraduate student.
- The student must have an attendance score of at least 85%, as stipulated in section 6.1.
- The student must have scored a minimum of 18 out of 40 marks in the continuous assessments.
- The student must have sat for the final exam and scored at least 18 out of 60 marks, while still failing to attain a passing grade for the course.
- The final course percentage in General Education Requirements must be between 35% and 39%.

74.2 Application for Supplementary Examinations

1. Students apply for the supplementary examination through the instructor, department chair and school dean using the prescribed forms available on the website.
2. Students must apply for the supplementary examination within the first week of the following semester.
3. Supplementary examinations are scheduled to take place at the start of the semester that follows the one in which the course was taken. Failure to which the student will repeat the course.
4. There shall be no supplementary examination for a failed supplementary exam.
5. The supplementary examinations will be administered during the second week of the following semester.
6. A supplementary exam fee equivalent to half the cost per credit and is payable before the examination date.
7. A student who fails a supplementary examination must repeat the course.

74.3 Supplementary Examination Grading

1. The maximum grade that can be earned from a supplementary examination is a C+ except for Nursing core and cognate courses for which the maximum grade shall be B-.
2. If a student scores lower on a supplementary exam, the initial grade will be retained on the his/her academic transcript.
3. The supplementary examination grade will replace the original grade and be used to compute the student's GPA.

7.5 REMARK OF FINAL EXAMINATION

Any student who feels that his/her final examination paper was not fairly marked has a right to request for a remark of the examination. The procedure for requesting for a remark of an examination shall be as follows:

1. A request for remarking a final examination must be made within two weeks of releasing the grade or within the first two weeks of the next semester.
2. A student completes the Remark of Examination form from the UEAB website. The student pays Kshs.2500 required for the remark before the remark is done.
3. The form is submitted to the Department Chairperson who submits it to the School Dean and then to the Registrar with a list of three approved examiners.

4. The Registrar takes the Remark of Examination form to Academic Standards Committee for approval.
5. After approval from the Academic Standards Committee, the ASC will then select one examiner and send the papers for remarking. For practical reassessment a minimum of two examiners will be appointed to reassess the student.
6. The marks of the remark are computed together with that of continuous assessment to arrive at the final grade to be awarded to the student as per the University policy.
7. The marks of the remarked work and the final grade awarded to the student as stipulated are presented to the Academic Standards Committee for ratification.
8. The final grade resulting from the remark shall be the grade awarded to the student.

7.6 CHALLENGE EXAMINATIONS

A challenge examination is a specially designed examination in a subject area for transfer students from other institutions who wish to challenge certain course to which they have been exposed at the same degree level (students with specialized training/ Higher National Diploma may be allowed). A challenge examination will not be given for a failed/repeated course. The challenge examination is prepared and marked by two instructors appointed by the department chairperson in consultation with the dean of the school.

To be eligible to apply for the challenge exam one should have attained a grade of at least B (Plain) in the course to be challenged at the same degree level. Similarly, the passing grade for a challenge examination is a B (Plain). Furthermore, a maximum of 10 credits may be earned through challenge examination. Only first and second year courses can be challenged.

Applications for challenge examinations must be approved by the Academic Standards Committee.

7.6.1 Procedure for Challenge Examination

1. Check with the Head of the department concerned to see if you are qualified to do the challenge examination.
2. Obtain a Challenge Examination Form from the UEAB website.
3. Complete the form with all the signatures in the order that they appear.
4. Return the completed form with all the required signatures to the Registrar's Office.
5. The Registrar will present the request to the Academic Standards Committee for consideration.
6. A letter of approval or denial will be sent to the student by the Registrar with copies to the chairperson of the student's department, chairperson of the department where the examination will be written, the dean of the student's school and the Deputy Vice-Chancellor, Academics.
7. If approved, the student should proceed to pay the challenge examination fee, which is the full cost of the tuition for the course. This money must be fully paid before the exam is administered.
8. The examination will be administered, and the grade will be sent on the appropriate forms by the Department Chairperson to the Registrar's Office.
9. The Challenge Examination grade must be presented to the Academic Standards Committee for approval before it is entered onto the student's academic record.

8.1 GRADING SYSTEM

The grading scale (in percentage and equivalent letter grade), which is a composite of 40% grade from continuous assessment and 60% grade from final examination, is as follows:

Percentage	Grade	Points
85 - 100	A	4.00 (Superior)
80 - 84	A-	3.67
75 - 79	B+	3.33
70 - 74	B	3.00 (Above Average)
65 - 69	B-	2.67
60 - 64	C+	2.33
55 - 59	C	2.00 (Average)
50 - 54	C-	1.67
40 - 49	D	1.00 (Below Average)
0 - 39	F	0.00 (Failure)

Other symbols which may appear on the grade report are as follows: AU, DG, IW, NG, S, U, W, and AW.

8.1.1 AU - Auditing Course

A student may wish to attend a class, but not receive credit for it. To audit a course, the student needs the permission of the Department and the Registrar of Admissions. He/she must attend class regularly. If credit is desired the course must be repeated at another time, during which time the student will be required to meet all the requirements for the course. All changes from audit to credit or vice versa must be made by the dates indicated in the academic calendar.

8.1.2 DG - Deferred Grade

A DG is assigned to a course(s) that are of such a nature that they may not be completed within one semester and are so designated beforehand. Courses for which a DG is used normally run over two semesters. Any extension of time beyond this needs the approval of the Academic Standards Committee. A DG has no effect on the Grade Point Average (GPA).

If a final grade has not been submitted to the Registrar's Office by the end of two semesters/trimesters, including the semester the DG was first applied for, the DG shall be administratively turned to AW (Administrative Withdrawal) by the Registrar. The AW shall remain a permanent record in the transcript. An AW has no effect on the Grade Point Average (GPA).

8.1.2.1 Procedure to Apply for a DG

A DG is applied for by the instructor. A student does not apply for it. The instructor must apply for DG grades for all those students taking such a course.

8.1.2.2 Submission of Final Grade

When the projects are completed, the final grades are then submitted by the instructor

8.1.3 IW - Incomplete Work

An Incomplete Work or IW indicates that course work (40%) eg. CAT, Quizzes, Assignment, Presentation, Labs, Clinicals has/have not been completed because of illness or other

unforeseeable circumstances, and not because of negligence, late work or low performance. This requires the approval of the class instructor, the Department Chairperson, the Dean of the School, Registrar and the Deputy Vice Chancellor, Academics. However, the attendance policy applies as described in 6.1. The class instructor must designate what work is to be completed and the time limit which shall not be later than the end of the following semester/ trimester. Any incomplete work(IW) not cleared on time will result in a grade calculated using marks earned from the work already done out of the total marks of the course.

Exceptional cases requiring an extension beyond the specified time as mentioned above must seek approval from the ASC. However, the extension must not exceed one academic year from the date of course registration.

An Incomplete Work is not automatically assigned but must be petitioned by filling the IW form with supporting documents within the semester of registration.

A student is not permitted to request both a Special Examination and an Incomplete Work (IW) at the same time.

8.1.3.1 Procedure to apply for an IW

It is the student's responsibility to complete the form from the download section of the UEAB website for an IW in triplicate for each IW. In the event of total inability on the part of the affected student to process the IW form, he/she may authorize someone else to complete the IW form to ensure that it is done promptly on the day of the emergency. The steps for applying for an IW are:

1. Download the IW form from the UEAB website and fill out the form (Friend/Faculty/Staff can apply on behalf of the student in case the student is unable to apply for IW).
2. Attach the documentary proof of the reason for requesting the IW to the form;
3. Get all the required signatures;
4. Submit the completed form to the Registrar's Office.

If the student does not return to the University the following semester, he/she must petition the Academic Standards Committee for an extension. Failure to do so will result in an F grade and the student is required to repeat the course.

8.1.3.2 Submission of Final Grade

When the incomplete work is done, the lecturer submits the IW form, proof of payment for the special exam and the mark book for the class to the Registrar's Office for ASC approval.

The Registrar submits the Change of Grade form and supporting documents to the Academic Standard Committee for approval.

After the Change of Grade has been approved by the Academic Standards, the grade is awarded

8.1.4 NG - No Grade

No Grade or NG is automatically assigned to a student at the time he/she registers for a course at the beginning of a semester/trimester. The "NG" is removed at the end of the semester/trimester when the course instructor submits the grades. If by the end of a semester/trimester a course

instructor does not have a grade for a student, and W, IW or DG has not been officially applied for and entered for the student, and there is no administrative action that has been taken to discontinue the student from the course to warrant him/her to be assigned AW (for DG only), the course instructor is required to assign the student an F grade. The student will have to repeat the course.

8.1.5 S/U - Satisfactory/Unsatisfactory Grade

A grade of S or U may be given in certain designated courses. A grade of S indicates a pass and a grade of U signifies unsatisfactory performance. S and U carry no quality points and do not affect the GPA. S and U grades will not be converted to standard or traditional letter grade, viz: A, B, C, D, and F.

8.1.6 W - Withdrawal

A W is assigned when a student officially withdraws from a course by completing the necessary forms before the date stipulated in the Academic Calendar as the last day to drop a class with a W, after this date an F is awarded. To apply for a W the student should visit the records office with an approval from the registrar. For refunds refer to General financial information policy in this bulletin.

8.1.7 AW - Administrative Withdrawal

An AW is awarded to a student who takes more than two semesters or trimesters to complete a course for which a DG has been awarded, the student must retake the course.

A student who engages in disciplinary misconduct will receive a failing grade (F) for the affected course(s) during the semester, the student must retake the course.

8.2 GRADE POINT AVERAGE (GPA)

This number is calculated by dividing the total grade points by the number of credit hours. Only A to F grades are used in computing the GPA while transfer credits are not included. If a student repeats a course, the grade obtained will be used to compute the GPA.

8.3 CHANGE OF GRADE

Upon receipt of a grade report the student should review it carefully for any errors or omissions. Any change of grade should be requested within two weeks of releasing grades or in the first two weeks of the new semester. No grade change will be approved unless it involves a computation or clerical error on the part of the lecturer. Grade changes are allowed

for Incomplete and Deferred Grades. Before a grade change is made on the student's record, the lecturer must download the Change of Grade form from the website. The form must be signed by the lecturer, the Department Chairperson, the Dean of the School and the Registrar. The new grade must be approved by the Academic Standards Committee except for incomplete and deferred grades.

A student is not permitted to attempt to improve the grade earned in a course by additional examinations and/or projects. Similarly, an independent study course will not be used to make up for an unsatisfactory grade in a regularly scheduled class.

8.4 REPEATING COURSES

A course in which a student has earned a grade of C- or better may be repeated only by permission of the Academic Standards Committee except where the minimum required grade for a given course is higher than C- and a student's grade is less than the minimum acceptable grade in which case the first repeat does not require the Academic Standards Committee approval. A student who has earned a grade of F or D in a course taken for a major, minor, cognate or specialization must repeat the course. No student will be allowed to graduate with a grade of F in any required course including general education requirements except where a student takes an equivalent course and earns an acceptable grade. A course may be repeated only once. If a student wishes to repeat a course more than once, he/she must petition through the Academic Standards Committee for approval. The Academic Standards Committee will approve a maximum of four attempts (this does not apply for Nursing Students). Thereafter, the student will be advised to change major or be deregistered.

A student may register to repeat a course only after receiving approval from their major advisor.

The grades earned in all attempts remain on the student's permanent record, but in computing the cumulative GPA, the credits and points of the last grade earned will be used.

In a sequence type course, a student who earns an F or W for one semester must repeat that course before being permitted to enroll or remain enrolled in subsequent part of the courses in that sequence. In some sequence courses, a grade of C- or better is required in order to register for the subsequent semester. This applies to core courses and those in the major, cognate, minor or specialization area of study.

9.1 INTERDEPARTMENTAL TRANSFERS FOR ALL UNIVERSITY STUDENTS

A student wishing to transfer to another department may formally request to do so upon consultation with the chairperson of the current department and that of the new department he/she wishes to transfer to, and on getting written consent from the sponsor/parent/ guardian.

9.1.1 Qualifications for Interdepartmental Transfers

1. Students may qualify to transfer to a department by fulfilling the department's requirements which they did not initially have when they first enrolled at the University.
2. The student must check with the Department Chairperson of the new department who will advise the student whether he/she is qualified to transfer to the new department or not by ensuring that the prerequisites of the department he/she wishes to transfer to have been met.

9.1.2 Procedure

1. The student obtains the interdepartmental transfer form from the University website and completes it accordingly.
2. When the student has completed the form, he/ she obtains the signatures of the following:
 - a. The Chairperson of the Department to which he/she intends to transfer;
 - b. The Chairperson of the Department from which he/she is transferring;
 - c. The Dean of the School to which he/she is transferring;
 - d. The Dean of the School from which he/she is transferring from.
3. The student obtains a letter from his/her sponsor approving of the change of program.
4. The student returns the form to the Registrar's Office for processing.
5. The Registrar effects the transfer and informs the student and the affected departments and schools.

9.2 TRANSFER CREDITS

Students who have attended other accredited institutions of higher learning and want to transfer coursework into their program at UEAB must submit their complete transcripts of studies. Such transfer credit will not enter into GPA calculation but can be counted toward degree requirements.

The following stipulations apply:

1. A grade of C+ or its equivalent or better may be accepted, and the overall GPA on all previous college work must be at least C (plain).
2. All upper-division courses (300 and above) in the student's major must be taken at UEAB. Any exception must be approved by Academic Standards Committee.
3. The credits accepted for transfer shall not exceed 30 semester credits. Such credits will not be used to calculate the GPA.
4. Students transferring from sister institutions may transfer more than 30 credits upon the approval of the Academic Standards Committee.

5. Transfer credit may not be accepted until a student has successfully completed one semester in residence.
6. If a transfer student requests a transcript from the University of Eastern Africa, Baraton before he/she graduates, credits from previous institutions attended are not listed on the transcript.
7. Transfer credits that are not requested for within two semesters of student's admission to UEAB may not be accepted.
8. All credits to be transferred must be presented to Academic Standards Committee at one time. Transfer requests presented after the initial transfer request has been voted may not be accepted.
9. Approval by the Academic Standards Committee is required if a student wishes to take any course in another institution while registered at the University of Eastern Africa, Baraton with the aim of transferring the credits to UEAB.
10. Regardless of the number of transfer credits accepted, a student must meet the general residence requirements at the University of Eastern Africa, Baraton.
11. No transfer of credits after a lapse of eight (8) years will be accepted.

9.2.1 Documents for Credit Transfer

Each transfer student after one semester of residence at UEAB may apply to the Department Chairperson for transfer of credits by submitting the Transfer of Credits Request form from the UEAB website.

Along with official transcripts, the student also must submit relevant course syllabus or bulletin sections from his/her previous college or university.

9.2.2 Procedures

The Department Chairperson will consult the relevant department chairpersons for courses outside of their department on course content and number of transferable credits.

The departmental committee, in consultation with the school dean recommends to the Registrar the number of credits acceptable for transfer.

Transfer of credits is effected only after the approval of the Academic Standards Committee.

The Registrar notifies the student the number of credit hours that are transferred. Copies of the letter will be sent to the relevant Department Chairpersons and School Deans.

9.3 CORRESPONDENCE COURSES

A student may request to take up to a total of six (6) semester credit hours from an open university. Andrews University through the School of Distance Education in Berrien Springs, Michigan, USA, offers a number of courses which fit well into the curriculum followed at the University of Eastern Africa, Baraton, and are recommended for students in need of correspondence credits. Correspondence credits are not accepted in a student's major field unless it is established that it is a course the student needs but is not offered at the

University. Correspondence courses will not replace a failed course, or other low grades earned at UEAB.

The permission of the Academic Standards Committee is required before a student may enroll in a correspondence course. Upper-division courses may not be met by correspondence courses.

To apply for a correspondence course the student must:

1. Check with your major academic advisor to determine whether the course you wish to do through correspondence will be accepted towards the graduation requirements.
2. Obtain a petition blank form from the Registrar's Office.

3. Complete the form and obtain the required signatures in the order they appear.
4. Return the completed form to the Registrar's Office.
5. Wait for a written approval from the Academic Standards Committee before you apply for any correspondence course.
6. Request the school offering the correspondence course to forward the grade directly to the Registrar's office once the approval is given.

Note: No correspondence grades less than C will be accepted.

10.0 Academic Awards

The University has an Honors Convocation during the second semester that honors the academic achievement of its students..

10.1 DEANS LIST

Students qualify to be on the Dean's List by meeting the following criteria:

1. Be registered for 16 semester/12 trimester credits or more in either of the previous two semesters/trimesters.
2. Earn a GPA of 3.75 or higher during that semester/trimester.
3. Have no grade lower than a B during that semester/trimester.
4. Have no grade of IW or DG during that semester/trimester.

10.2 HONOR ROLL

Students qualify to be on the Honor Roll by meeting the following criteria:

1. Be registered for 16 credits/12 trimester credits or more in both of the previous two semesters/trimesters.

2. Earn a GPA of 3.75 or higher during both semesters/trimesters.
3. Have no grade lower than a B during both semesters/trimesters.
4. Have no grade of IW or DG during both semesters/trimesters

10.3 SPECIAL AWARD

Students qualify for a Special Award by meeting the following criteria:

1. Be registered for 16 semester/12 trimester credits or more in each of the previous three semesters/ trimesters.
2. Earn a GPA of 3.75 or higher during each of the previous three semesters/trimesters.
3. Have no grade lower than a B for all of the previous three semesters/trimesters.
4. Have no grade of IW or DG during all three of the previous semesters/trimesters.

11.0 Academic Dishonesty

11.1 DEFINITION OF ACADEMIC DISHONESTY

Academic dishonesty includes plagiarism, forging signatures, impersonating, using notes or textbooks during quizzes or examinations not authorized, copying or looking at the test or paper of another student, aiding another student, use of mobile phone or any electronic information retrieval device or any other act that may be interpreted as constituting dishonesty in an examination including unethical use of Artificial Intelligence (AI) (formal or take-home examination).

Academic dishonesty will result in a failing grade for the course, as well as all courses registered during that semester/trimester. Additionally, the student will face suspension from the University for one academic year (covering two semesters and inter-semester or three trimesters) or any other disciplinary action deemed appropriate by the University. Forging signatures and impersonation will be subjected to criminal prosecution.

UEAB subscribes to its core values. All violations of the policy are violations of the value of honesty but may also create questions related to trust, fairness, respect, and responsibility. The violations of policies regarded as academic dishonesty listed below are typical, but not exhaustive. Examples of the acts that constitute breaches of the policy include:

1. **Cheating:** Intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. Cheating includes but is not limited to unauthorized copying from the work of another student, using notes or other materials not authorized during an examination, giving or receiving information or assistance on work when it is expected that a student will do his/her own work, or engaging in any similar act that violates the concept of academic integrity. Cheating may occur in an examination, test, quiz, laboratory work report, theme, out of class assignment or any other work submitted by a

student to fulfill course requirements and presented solely as the work of the student.

- a. "Spontaneous" cheating includes such violations as copying from another student's work.
 - b. "Non-Spontaneous" cheating includes the following as typical but not exclusive examples: Premeditated copying individually or in conspiracy to copy from another student's work, obtaining unauthorized copies of the examination to be administered prior to the time of examination, employing unauthorized materials during any academic exercise.
- 2. Plagiarism:** Representing the words of another, as one's own in any academic exercise. Plagiarism may occur on any paper, report, or other work submitted to fulfill course requirements. This includes submitting work done by another, whether a commercial or non-commercial enterprise, including websites, as one's own work.
- a. Failure to cite references includes intentional or obvious failures to properly cite sources.
 - b. Submitting, as one's own, work done by or copied from another including work done by a fellow student, work done by a previous student, or work done by anyone other than the student responsible for the assignment.
- 3. Misuse of Academic Resources:** the intentional use, misuse or alterations of University materials or resources so as to make them inaccessible to other users. Such misuse includes the unauthorized use of computer accounts, alteration of passwords, violation of library procedures or other intentional misuse or destruction of educational materials.
- 4. Falsification:** Intentional and unauthorized falsification or invention of any information or citation in an academic exercise. Falsification includes knowingly reporting data, research, or reports so that either the process or the product is shown to be different from what actually occurred; falsely reporting having met responsibilities of attendance or participation in class, practicum, internship, clinical, or other types of field work experience; or submission of falsified excuses for attendance or participation in such experiences. Falsification also includes submitting work to meet the requirements of one course when it was done, in whole or in part, to meet the requirements of another course.
- 5. Possession/use of unauthorized electronic gadgets** such as calculators, cell phones, etc. in examination halls.
- 6. Facilitating academic dishonesty:** Intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty. Facilitating academic dishonesty includes acts that may not directly benefit the accused but assist another student in violations of the Policy.

If a student aids/assists/helps another in committing academic dishonesty, they will face the same level of disciplinary action as the student who engaged in academic dishonesty.

If a faculty or staff member assists a student in committing academic dishonesty, they will be subject to disciplinary action in accordance with the employee's Handbook.

11.2 PROCEDURE FOR REPORTING DISHONESTY

1. **CATs, Assignments, Projects, Labs, Clinicals, Attachments, Final, Special, and Supplementary Examinations:** Academic dishonesty shall be brought to the attention of the chief invigilator of the examination. Verified evidence or witness statements must be presented to the Academic Standards Committee via the Office of the Registrar for appropriate action. The student will be suspended for one academic year (covering two semesters and inter-semester or three trimesters) or more depending on the gravity of the offense and will receive a grade of F for all courses registered in that semester/trimester. The decision made will be conveyed to the students by the Registrar and copied to his/her Department Chairperson, his/her Dean of the School, the Deputy Vice Chancellor Student Affairs and Services, the Deputy Vice-Chancellor Academics and the student's sponsor/parent. In case of discontinuation, the recommendations of the Academic Standards Committee are made to the Administrative Board.
2. **If a faculty member catches/suspects other academic dishonesty** other than listed above (1 and 2), he/she should submit evidence in writing to the Registrar through the school dean and head of the department concerned.
 - a. Proper investigation will be done before bringing the matter to the Academic Standards Committee.
 - b. The student caught/suspected of being involved in the academic dishonesty will be given proper hearing.
3. After studying the offense with the DVC Academics, the Registrar presents the matter to the Academic Standards Committee.
4. Depending on the degree of offense, the Academic Standards Committee will **suspend, or recommends the dismissal of the offender** to the Administrative Board.
5. If a student is caught the second time committing academic dishonesty, he/she will be discontinued from the studies.
6. If the student feels that the decision of the Academic Standards Committee is unfair, then the student can appeal to the Vice-Chancellor within 14 working days of receiving the letter of suspension.

12.1 ACADEMIC PROBATION

1. Any student whose cumulative GPA falls below 2.00 at the end of a semester is placed on academic probation.
2. A student who is on academic probation should normally register for a maximum of 12 credits in a regular semester/nine in a regular trimester. Carrying a higher load may jeopardize chances of attaining the grades necessary to make proper academic progress. On the other hand, carrying a lower load may jeopardize chances to attain sufficient quality points to raise the GPA to the required level within the time limits specified. Grades earned on a lower course load also may not be significant indicators of academic ability.
3. If the student's cumulative GPA is still below 2.00 after two more consecutive semesters, he/she becomes subject to suspension from the University for academic reasons for one semester or two trimesters for nursing students.

12.2 ACADEMIC SUSPENSION

Students become subject to Academic Suspension for any of the following reasons:

1. By engaging in any form of academic dishonesty as described in 11.1.
2. By obtaining a GPA of below 2.00 for two consecutive semesters/trimesters:
 - a. A student who has been suspended for scoring below required GPA may reapply after one semester/two trimesters has/have elapsed. However, he/she may reapply after one semester of suspension if his/her GPA was 2.00 in each of the two consecutive semesters/trimesters prior to suspension.
 - b. A student who is readmitted will be placed on probation and advised to limit his/her co-curricular activities.
3. If a student is suspended two times for scoring a GPA below 2.00, he/she will be advised to change his/her major. If the same student is placed on academic suspension in the new program, he/she will be liable to dismissal.
4. A student who is suspended for academic dishonesty reasons can re-register after one academic year (covering two semesters and inter-semester or three trimesters).

12.3 ACADEMIC DISMISSAL

Students become subject to academic dismissal in Any One of the Following Vocational Skill: ways:

1. By earning a grade point average of 0.5 or less during a given semester/trimester.
2. By failure to reach a grade point average of 2.0 for two successive semesters/trimesters.
3. By displaying a high degree of irresponsibility in matters such as class attendance and homework assignments among other things.
4. By engaging in any form of academic dishonesty as described in 11.1.

The Academic Standards Committee after reviewing the student's performance will recommend the student's dismissal to the Administrative Board.

12.4 ACADEMIC GRIEVANCES

General Procedure: Any student who wishes to express concern regarding instructional matters such as perceived unfair grading, cheating or general misunderstanding, should confer with the instructor.

If the problem cannot be solved at the instructor level, the student can then go to the department chairperson. If the problem is not solved by the department chair, the student can then go to the dean of the school. If the matter is not solved by the dean, the student can appeal to the Deputy Vice-Chancellor, Academics.

Any complaint to the Deputy Vice-Chancellor, Academics, must be made in writing through the Chairperson and Dean of School, except for request for remark of examination where a form shall be used as outlined above. The complaint must be made within the first two weeks of the semester. Grievances that involve unfair grades that do not reach DVC Academics Office within the period stipulated above will not be accepted.

13.1 REQUEST FOR GRADUATION

Students must submit their graduation application online immediately after registration for the first semester of their final year.

Once the application is received and all academic requirements are fulfilled, the Head of the Department will review and approve it, followed by the Dean of the respective school. The application will then proceed to the Student Finance Office for initial financial clearance.

After financial approval, students must complete document verification with the registry and fulfill all required system clearances. Upon successful completion of these processes, the Registrar will approve and issue a completion letter. The completion letter remains valid until the graduation date and expires thereafter.

Students must ensure sufficient funds are available in their account for final clearance by the Student Finance Office at least one week before graduation. Failure to meet financial clearance requirements may result in the student being unable to graduate.

Students can track the progress of their graduation application through their student portal. If a student does not graduate within the year they applied, the application will expire, and they will be required to reapply.

Applications submitted within the deadline will not incur any penalties. However, late applications will be subject to a fee of Ksh. 1,000, which will increase by the same amount each subsequent month.

13.2 GENERAL GRADUATION REQUIREMENTS

The requirements that apply to the various bachelor's degrees may be summarized as follows:

The minimum number of credits required for graduation is 132 credit hours and the maximum number of credits hours is 150 depending on the academic program. The minimum number of credit hours for an upgrading student is at least 108 credit hours

1. A Core or Concentration.
2. Cognates: If specified in the requirements of the student's major department.
3. A Minor is required for Bachelor of Arts degrees unless exempted.
4. General education requirements as outlined for the degree being sought.
5. Electives: If, after having taken all specifically required classes, a student still has less than a minimum of 120 credit hours unless the student is an upgrading student where the minimum number of credits for graduation is 108, elective courses are chosen from any area in consultation with the major advisor to fill out the minimum 120/108 credit hours.
6. Upper-division credit hours: Among his/her courses a student must include a minimum of 30 credits of upper-division courses (courses numbered 300 and above) in the major or cognate areas.

7. GPA requirements are as follows:
 - a. Grades of less than C- will not apply for a Core, Concentration, Minor, Cognates or Electives. Some departments like Nursing and Medical laboratory Sciences require higher grades than C-. It is the student's sole responsibility to check the grades required by his/her department to qualify for graduation.
 - b. A GPA of 2.25 is required for a Core and Concentration except for the programs that specify a higher GPA.
 - c. A GPA of 2.00 is required for Minors and Cognates.
 - d. A minimum cumulative GPA of 2.00 is required on a student's total credit hours to graduate.
8. Finish all coursework by the end of inter-semester in order to be considered for graduation. All grades including fieldwork/attachment grades must have been received by the end of inter- semester.
9. Participate in the graduation exercise. Graduation Ceremony at UEAB includes the consecration, baccalaureate and commencement services in which all graduands are required to participate.

13.3 PARTICIPATION IN GRADUATION EXERCISES

Before a student participates in the graduation exercise and receives his/her degree certificate, the student:

1. Must have applied for graduation online through iCampus. Application for graduation should be done one academic year before, the expected date of graduation.
2. Must have completed all relevant requirements for the degree pursued.
3. Must have official transcripts of any transfer credits, including correspondence credits, in the Registrar's Office at least three months prior to the intended date of graduation;
4. Must have been given financial clearance online by the Student Finance Office;
5. Must have been cleared by the Department, School, and Senate;
6. Must have been cleared by the office of the Deputy Vice-Chancellor - Student Affairs and Services.
7. Must attain verification and clearance from the Registrar's Office and have his/her name included on the list of students cleared for graduation which can be viewed online on the students portal.

13.4 GRADUATION IN ABSENTIA

All graduands are encouraged to attend and to participate in the graduation ceremony.

Graduation in absentia is generally not allowed but may be granted under special circumstances with Senate approval.

Permission to graduate in absentia should be sought for at least one month before graduation.

13.5 GRADUATION WITH HONORS

A student is graduated with academic distinction if the following conditions are met:

1. At least 80 semester credits with traditional letter grades earned in residence.

2. A cumulative GPA of 3.670 and above: First Class (A golden sash to be worn on graduation day).
3. A cumulative GPA of 3.000 – 3.669: Second Class Upper.

13.6 DEGREE CLASSIFICATION

UEAB uses English System in classifying its degrees as follows:

Class	GPA
First Class	3.670 – 4.000
Second Class Upper	3.000 – 3.669
Second Class Lower	2.330 – 2.999
Pass	2.000 – 2.329

13.7 POSTHUMOUS DEGREE

To recognize the hard work of students who may be deceased while studying, the University of Eastern Africa, Baraton awards a posthumous degree to such students. A student who has completed a minimum degree requirements but deceased before graduation may be considered a candidate for a posthumous degree. Such student must be nominated by the chairperson of the department in which the student was enrolled at prior to his or her death. Request for the posthumous degree must reach the office of the Registrar for voting by the Senate.

If the posthumous degree is voted by the Senate:

1. The chairperson of the department of the deceased student contacts the relative of the student to be present on the commencement service to receive the degree/diploma or certificate.

2. The student's name will be listed in the commencement program parenthetically noted "Posthumous." Posthumous degrees cannot not be backdated.
3. On the diploma, the words, "awarded posthumously" will be printed.
4. On the transcript, it will be noted that it is a posthumous degree.

13.8 SUBSEQUENT DEGREE CANDIDACY

The University of Eastern Africa, Baraton, may grant more than one baccalaureate degree to an individual. However, a student may qualify for only one degree at a time and not more than one degree is conferred on any student on a given graduation. When a student returns after graduation with one degree to complete another major/degree, he/she may graduate with that major/ degree as follows:

1. All individuals seeking subsequent bachelor's degree(s) must apply and obtain approval of the Academic Standards Committee.
2. All requirements for subsequent bachelor's degree(s) being sought must be fulfilled.
3. Credits earned in General Education Requirements may apply for a subsequent bachelor's degree(s).
4. Electives earned in the previous Bachelor's degree will not apply in the subsequent Bachelor's degree(s).
5. The transcript

For more details, please see any of the following: Academic Department Chairperson, Dean of School, Academic Standards Committee Chairperson, or the Registrar.

14.0 Course Abbreviations

The following course abbreviations are used in the Bulletin.

ABBREVIATION	SUBJECT AREA	DEPARTMENT
ACCT	Accounting	Accounting
AGEC	Agriculture	Biological Sciences and Agriculture
AGEN	Agriculture	Biological Sciences and Agriculture
AGRI	Agriculture	Biological Sciences and Agriculture
ANSC	Animal Science	Biological Sciences and Agriculture
ARCH	Archaeology	Humanities and Social Sciences
AUBO	Automotive Engineering	Technology
AUTO	Automotive	Technology
BIBL	Biblical Languages	Theology and Religious Studies
BIOL	Biology	Biological Sciences and Agriculture
BIOT	Biotechnology	Biological Sciences and Agriculture
BOTN	Botany	Biological Sciences and Agriculture
CHEM	Chemistry	Math, Chemistry, and Physics
CLSC	Clinical Laboratory Science	Medical Laboratory Science
CMMT	Electricity and Electronics	Technology
CNST	Construction	Technology
COEM	Electronic Communication	Humanities and Social Sciences
COMM	Communication	Humanities and Social Sciences
COMP	Computer	Technology
COPA	Public Relations	Humanities and Social Sciences
COPM	Print Media	Humanities and Social Sciences
COSC	Computer	Information Systems and Computing
CPSC	Crop and Soil Science	Biological Sciences and Agriculture
DEST	Development Studies	Humanities and Social Sciences
DTCS	Dietetics	Foods, Nutrition and Dietetics
ECON	Economics	Management
EDAD	Educational Admin	Education
EDFO	Educational Foundations	Education
EDPC	Educational Psychology	Humanities and Social Sciences
EDTE	Teacher Education	Education
EDTM	Teaching Method	Education
EDUC	Education	Education
ELCT	Electronics	Technology
ENGL	English	Humanities and Social Sciences
ENVI	Environmental Studies	Humanities and Social Sciences
FDNT	Foods Science	Foods, Nutrition and Dietetics
FNCE	Finance	Accounting
FREN	French	Humanities and Social Sciences
FTXD	Fashion and Design	Foods, Nutrition and Dietetics
GCAS	General Studies	Humanities and Social Sciences
GEOG	Geography	Humanities and Social Sciences
HIST	History	Humanities and Social Sciences
HLED	Health Education	Nursing

ABBREVIATION	SUBJECT AREA	DEPARTMENT
HORT	Horticulture	Biological Sciences and Agriculture
HTGM	Hotel Management	Foods, Nutrition and Dietetics
INEL	Electronics	Technology
INSY	Information System	Information Systems and Computing
KISW	Kiswahili	Languages and Literature
LITE	Literature	Languages and Literature
MATH	Mathematics	Mathematics and Physics
MECT	Drafting Technology	Technology
MGMT	Management	Management
MKTG	Marketing	Management
MTLS	Metal Technology	Technology
MUCO	Music Conducting	Music
MUCT	Music Theory	Music
MUED	Music Education	Music
MUHL	Music History and Literature	Music
MUPF	Music Performance	Music
MURE	Church Music	Music
NRSG	Nursing	Nursing
NUTR	Nutrition	Foods, Nutrition and Dietetics
OFAD	Office Administration	Management
OFTE	Secretarial Studies	Management
PEAC	Physical Education	Education
PHEH	Environmental Health	Public Health
PHEP	Epidemiology	Public Health
PHHC	Community Health	Public Health
PHNT	Health Nutrition	Public Health
PHYS	Physics	Mathematics, Chemistry, and Physics
POLS	Political Science	Humanities and Social Sciences
PSYC	Psychology	Humanities and Social Sciences
RELB	Religion-Biblical Studies	Theology and Religious Studies
RELH	Religion-Historical Studies	Theology and Religious Studies
RELP	Religion-Practical Studies	Theology and Religious Studies
RELT	Religion-Theological Studies	Theology and Religious Studies
SDEV	Electronics	Technology
SOCI	Sociology	Education
STAT	Statistics	Mathematics, Chemistry, and Physics
SWFI	Social Work	Humanities and Social Sciences
SWFC	Social Work	Humanities and Social Sciences
SWHS	Social Work	Humanities and Social Sciences
SWCA	Social Work	Humanities and Social Sciences
SWPC	Social Work	Humanities and Social Sciences
TCED	General Technology	Technology
TCEM	Engineering Mathematics	Technology
WOOD	Wood Technology	Technology
ZOOL	Zoology	Biological Sciences and Agriculture



SCHOOL OF BUSINESS

DEPARTMENTS:
ACCOUNTING AND FINANCE |
INFORMATION SYSTEMS AND COMPUTING | MANAGEMENT



School of Business

DEAN – Ibeneme C, PhD.

Email: sob@ueab.ac.ke

PHILOSOPHY

The School of Business is committed to train and develop future business professionals who are fortified with spiritual and moral strength, virtues, and are academically prepared to function in their respective profession as managers, businessmen, entrepreneurs, treasurers, controllers, auditors, accountants, office administrators, computer professionals, information technologists, software engineers, network managers, business instructors, and other related responsibilities in denominational work, in private business industry, government service and service to humanity. They are envisioned to be effective agents for economic growth and development.

MISSION

The mission of the School of Business is to inculcate and impart Christian values and academic/professional competence for better service to God and humanity in this world in preparation for greater service in the world to come in all business and related fields.

VISION

The vision of the School of Business is to be one of the leading business schools that produce competent and committed business professionals who will make a difference in the way business is conducted in today's world.

OBJECTIVES

As the School of Business strives to accomplish the ideals expressed in the preceding philosophy, vision and mission, the following are its objectives:

1. To train high caliber business professionals with sound ethical orientation.
2. To influence positively the business environment through interaction and consultancies
3. To prepare the students for the second coming of Jesus Christ.

DEGREES OFFERED BY THE SCHOOL

Masters

1. Master of Business Administration (MBA) in Accounting
2. Master of Business Administration (MBA) in Business Management
3. Master of Business Administration (MBA) in Human Resource
4. Master of Business Administration (MBA) in Finance
5. Master of Business Administration (MBA) in Management Information Systems

Bachelors

1. Bachelor of Business Administration (BBA) in Accounting
2. Bachelor of Business Administration (BBA) in Finance
3. Bachelor of Business Administration (BBA) in Management
4. Bachelor of Business Administration (BBA) in Marketing
5. Bachelor of Business Administration (BBA) in Office Administration
6. Bachelor of Business Information Technology (BBIT)
7. Bachelor of Science (BSc) Cybersecurity and Networks
8. Bachelor of Science (BSc) Software Engineering

Minors

1. Minor in Accounting
2. Minor in Economics
3. Minor in Finance
4. Minor in Management
5. Minor in Marketing
6. Minor in Computer Science
7. Minor in Management Information Systems

DEPARTMENT OF ACCOUNTING AND FINANCE

FACULTY

Aunga, D. PhD. (Head of Department)
Ong'eta, J. PhD
Mule, A. (MBA, PhD in Progress)
Waley, S. (MBA, CPA, PhD in Progress)
Tanui, H. (MBA, CPA, PhD in Progress)
Boit, A. (MBA, CPA, PhD in Progress)
Muthanji H. (MBA, PhD in Progress)
Ogechi, R. (MBA, CPA, PhD in Progress)
Misoi, P. (MBA, CPA, PhD in Progress)
Kirwa, P. (MBA)

Email: hod_accounting@ueab.ac.ke

PHILOSOPHY

The Department of Accounting and Finance operates on the Seventh-day Adventist Worldview, which holds that God is the Creator and Sustainer of the Universe and life and is the source of true knowledge. The fall of man caused by the entrance of sin affected both the principles and the foundations of business practices and their application; hence, the restoration of business practices to the right principles is at the center of the Department's work. This will lead accounting and finance graduates to have a more fulfilling career life and knowledge for service to God and humanity.

MISSION

The mission of the Department of Accounting and Finance is the provision and advancement of a Christian educational experience for students pursuing careers in accounting and finance in order to equip them with necessary skills for service to God and humanity.

VISION

The vision of the department is to be a centre of excellence producing world class experts in accounting and finance fortified with moral values.

DEGREE AND PROFESSIONAL COURSES OFFERED BY THE DEPARTMENT

1. Bachelor of Business Administration in Accounting
2. Bachelor of Business Administration in Finance
3. Minor in Accounting
4. Minor in Finance
5. Certified Public Accountant

ACCOUNTING OPTION EXPECTED LEARNING OUTCOMES

By the end of the degree program in accounting, the learner should be able to:

1. Explain concepts and principles of business records used in accounting cycle; explain the accounting principles and concepts and the accounting life cycle.
2. Identify and prepare books of accounts including journals, ledger, income and expenditure, balance sheet and cash flows.
3. Prepare and analyze liability and stockholders' equity accounts.
4. Prepare budgets for profit making and non-profit making organizations.

5. Design and evaluate accounting information systems.
6. Analyze internal control systems of an organization and decision-making mechanisms.
7. Describe accounting changes and carry out error analysis
8. Prepare and interpret financial statements for profit and non-profit making organizations.
9. Discuss auditing theories, standards and ethics.
10. Compare organizational accounting theory with practice.
11. Prepare income tax returns, VAT, customs and excise among others.
12. Apply various costing techniques in accounting for goods and services.

FINANCE OPTION EXPECTED LEARNING OUTCOMES

By the end of the degree program in finance, the learner should be able to:

1. Define such terms as finance, money, money market, stock exchange, financial market, financial instruments, financial planning, investments, insurance needs, consumer credit, balance of trade and balance of payment
2. Explain the process of financial planning, money management, and investment
3. Discuss financial portfolio theory, capital pricing models, and asset pricing models
4. Analyze financial statements, bond and stock valuation
5. Project cash flow analysis, risks in capital budgeting, and optimal capital budget
6. Examine financial management issues that confront depository financial service firms
7. Carry out research on financial analysis, projections, and utilization of specific institutions
8. Demonstrate professional ethics and accountability in the process of managing financial resources
9. Write a proposal aimed at soliciting finance for either a public or a private institution or organization or business enterprise

CAREER OPPORTUNITIES FOR ACCOUNTING AND FINANCE GRADUATES

A graduate in accounting and/or finance has a wide variety of career opportunities. The Department prepares, equips, trains and develops the students for career possibilities in business and industry, hospitals, schools, universities, religious and not-for-profit institutions, public accounting, proprietorship, government service, and in many other recognized organizations. It is a common observation that almost every organization has accounting and/or finance personnel among the ranks of its officers and employees. The graduate may become an accountant, treasurer, manager, financial analyst, chief finance officer, investment consultant, tax advisor, auditor, production supervisor, or other related areas.

ENTRANCE REQUIREMENTS

Direct Entry

An applicant, who scores a minimum of KCSE mean grade of C+ (Plus), with a minimum of C or its equivalent in both English and Mathematics, may be considered to pursue either a Bachelor of Business Administration in Accounting or Finance, or a minor in Accounting or Finance. For international students or other

non-KCSE certification, the University will consider equivalent qualifications.

Interdepartmental Transfer

A student wishing to transfer from other departments of the University, but has not met the direct entry requirements, may be allowed to transfer provided he/she has an average grade of at least C+ in MGMT 111 and 112 and an average grade of at least C+ in ENGL 105 and ENGL 106.

EXEMPTIONS FOR CPA CERTIFICATE HOLDERS

A student admitted into an accounting or finance degree by meeting university entrance requirements and in addition holds a certified public accountants (CPA) finalist certificate is eligible at a fee for exemption on the following courses on the basis of having done them at CPA level.

ACCT 111 Fundamentals of Accounting I

ACCT 112 Fundamentals of Accounting II

ACCT 221 Intermediate Accounting I

ACCT 222 Intermediate Accounting II

FNCE 287 Principles of Finance:

ECON 210 Principles of Microeconomics:

ECON 211 Principles of Macroeconomics:

MGMT 151 Business Law I

MGMT 152 Business Law II

MGMT 130 Fundamentals of Management

REQUIREMENTS FOR GRADUATION

In addition to the graduation policy of the University as outlined in this bulletin, the Department of Accounting recommends a student for graduation to the School of Business Board and to the Senate upon completion of the following requirements:

1. A minimum overall GPA of 2.00.
2. A minimum GPA of 2.25 for the business core, specialization, cognate, and minor area.
3. A minimum of twelve (12) continuous weeks of practical experience in a well-established company.
4. A minimum average grade of B- in Practical Experience courses.

COURSE REQUIREMENTS

BACHELOR OF BUSINESS ADMINISTRATION IN ACCOUNTING

SUMMARY

General Education Requirements	25
Core	75
Specialization	42
Cognates	3
Total	145 Credits

Accounting students are exempted from the following General Education Requirements

Code	Course Title	Credits
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
MATH 100	Foundations of Mathematics	3
HIST 111	Concepts of World Civilization	2
AGRI 105	Principles of Agricultural Technology	2

ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2
Total		16

GENERAL EDUCATION REQUIREMENTS COURSES

23 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOC 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		25

CORE COURSES

75 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
FNCE 287	Principles of Finance	3
FNCE 329	Money, Banking and Financial Markets	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management information systems	3
MGMT111	Mathematical Methods for Business I	3
MGMT112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I (Mercantile Law)	3

MGMT 152	Business Law II (Company Law)	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 380	Quantitative Techniques	3
MKTG 115	Principles of Marketing	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES **42 Credits**

Code	Course Title	Credits
ACCT 221	Intermediate Accounting I	3
ACCT 222	Intermediate Accounting II	3
ACCT341	Cost Accounting	3
ACCT 342	Managerial Accounting	3
ACCT 360	Public Sector Accounting	3
ACCT 361	Taxation	3
ACCT 451	Advanced Accounting I	3
ACCT 452	Advanced Accounting II	3
ACCT 461	Auditing I	3
ACCT 462	Auditing II	3
ACCT 484	Practical Experience in Accounting I	1
ACCT 485	Corporate Internship in Accounting	2
ACCT 496	Accounting Research Project	3
FNCE 470	Financial Management	3
ACCT 418	Accounting information Systems	3
Total		42

COGNATE COURSE **3 Credits**

Code	Course Title	Credits
MGMT 475	Production and Operations Management	3

BACHELOR OF BUSINESS ADMINISTRATION IN FINANCE

SUMMARY

General Education Requirements	23
Core	75
Specialization	44
Cognates	3
Total	145 Credits

Finance students are exempted from the following General Education Requirements

Code	Course Title	Credits
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
MATH 100	Foundations of Mathematics	3

AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
PHYS 100	Concepts of Physical Sciences	2
Total		18

GENERAL EDUCATION REQUIREMENTS COURSES **23 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		23

CORE COURSES **75 Credits**

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
FNCE 287	Principles of Finance	3
FNCE 329	Money, Banking and Financial Markets	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management information systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3

MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I (Mercantile Law)	3
MGMT 152	Business Law II (Company Law)	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management.	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 380	Quantitative Techniques	3
MKTG 115	Principles of Marketing	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES 44 Credits

Code	Course Title	Credits
ACCT 221	Intermediate Accounting I	3
ACCT 222	Intermediate Accounting II	3
ACCT 341	Cost Accounting.	3
ACCT 342	Managerial Accounting	3
ACCT 361	Taxation	3
FNCE 420	Public Finance	3
FNCE 455	International Finance	3
FNCE 467	Investment Analysis and Portfolio Management	3
FNCE 470	Financial Management	3
FNCE 473	Financial Derivatives	3
FNCE 474	Intermediate Corporate Finance	3
FNCE 475	Advanced Corporate Finance	3
FNCE 480	Management of Financial Institutions	3
FNCE 485	Corporate Internship in Finance	2
FNCE 496	Finance Research Project	3
Total		44

COGNATE COURSE 3 Credits

Code	Course Title	Credits
MGMT 475	Production and Operations Management	3

MINOR IN ACCOUNTING OR FINANCE

A non-business student who desires a minor in accounting or finance should take the following prerequisites:

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
FNCE 287	Principles of Finance	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 130	Fundamentals of Management	3

MINOR IN ACCOUNTING

SUMMARY

Core	19
Electives	9
Total	28 Credits

CORE COURSES 19 Credits

Code	Course Title	Credits
ACCT 221	Intermediate Accounting I	3
ACCT 222	Intermediate Accounting II	3
ACCT 341	Cost Accounting	3
ACCT 342	Managerial Accounting	3
ACCT 484	Practical Experience in Accounting I	1
ACCT 451	Advanced Accounting I	3
ACCT 461	Auditing I	3
Total		19

ELECTIVE COURSES 9 Credits

Code	Course Title	Credits
ACCT 452	Advanced Accounting II	3
ACCT 462	Auditing II	3
FNCE 455	International Finance	3
FNCE 467	Investment Analysis and Portfolio Management	3
FNCE 470	Financial Management	3
ACCT 418	Accounting Information Systems	3
MGMT 475	Production and Operations Management	3

MINOR IN FINANCE

SUMMARY

Core	18
Electives	9
Total	27 Credits

CORE COURSES 18 Credits

Code	Course Title	Credits
FNCE 329	Money, Banking and Financial Markets	3
FNCE 455	International Finance	3
FNCE 467	Investment Analysis and Portfolio Management	3
FNCE 470	Financial Management	3
FNCE 474	Intermediate Corporate Finance	3
FNCE 480	Management of Financial Institutions	3
Total		18

ELECTIVE COURSES 9 Credits

Code	Course Title	Credits
ECON 315	Intermediate Macroeconomics	3
FNCE 455	International Finance	3
MGMT 258	Risk Management	3
MGMT 475	Production and Operations Management	3

Bachelor of BUSINESS ADMINISTRATION IN ACCOUNTING

Four-Year Course Plan

Key: T - Theory; L -Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3
	MGMT 111	Mathematical Methods for Business I	3	0	3	HLED 110	Health Principles	1	0	1
	PEAC 107	Physical and Recreational Activities	1	0	1		Vocational Skills	1	0	1
	ENGL 105	Writing Skills	3	0	3	ACCT 112	Fundamentals of Accounting II	4	0	4
	ACCT 111	Fundamentals of Accounting I	4	0	4	MGMT 112	Mathematical Methods for Business II	3	0	3
	INSY 119	Business Information Processing and Applications	3	1	4	OFTE 120	Keyboarding	0	0	0
	MKTG 115	Principles of Marketing	3	0	3	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Sociology/ Family Issues	2	0	2
						MGMT 131	Principles and Practices of Management	3	0	3
	Total		19	1	20	Total		17	0	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELB 220	Life and Teachings of Jesus	2	0	2	MGMT 221	Business Statistics II	3	0	3
	RELT 255	Introduction to Christian Ethics	2	0	2	MGMT 231	Human Resource Management	3	0	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	BIOL 105	Human Biology	2	0	2
	ACCT 221	Intermediate Accounting I	3	0	3	ACCT 222	Intermediate Accounting II	3	0	3
	MGMT 220	Business Statistics I	3	0	3	FNCE 287	Principles of Finance	3	0	3
	ECON 210	Principles of Microeconomics	3	0	3	ECON 211	Principles of Macroeconomics	3	0	3
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	MGMT 152	Business Law II	3	0	3
	MGMT 152	Business Law I	3	0	3					
	Total		20	0	20	Total		20	0	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ECON 310	Intermediate Microeconomics	3	0	3	ACCT 484	Practical Experience in Accounting I	1	0	1
	OFAD 306	Business Communications	3	0	3	MGMT 494	Business Research Methods	3	0	3
	ACCT 341	Cost Accounting	3	0	3	FNCE 329	Money, Banking and Financial Markets	3	0	3
	MUGR 100/ LITE 151	Music Appreciation / Introduction to Literary Appreciation	2	0	2	ECON 315	Intermediate Macroeconomics	3	0	3
	ACCT 361	Taxation	3	0	3	ACCT 342	Managerial Accounting	3	0	3
	MGMT 378	Entrepreneurship	3	0	3	INSY 305	Management Information Systems	3	0	3
	Total		17	0	17	Total		16	0	16
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ACCT 451	Advanced Accounting I	3	0	3	ACCT 452	Advanced Accounting II	3	0	3
	ACCT 461	Auditing I	3	0	3	ACCT 462	Auditing II	3	0	3
	ACCT418	Accounting Information Systems	3	0	3	MGMT 475	Productions and Operations Management	3	0	3
	MKTG 380	Quantitative Techniques	3	0	3	ACCT 485	Corporate Internship in Accounting	2	0	2
	FNCE 470	Financial Management	3	0	3	ACCT 360	Public Sector Accounting	3	0	3
	ACCT 496	Accounting Research Project	3	0	3	MGMT 477	Business Ethics	3	0	3
	Total		18	0	18	Total		17	0	17

Bachelor of BUSINESS ADMINISTRATION IN FINANCE

Four-Year Course Plan

Key: T - Theory; L - Practical TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3
	MGMT 111	Mathematical Methods for Business I	3	0	3	HLED 110	Health Principles	1	0	1
	PEAC 107	Physical and Recreational Activities	1	0	1		Vocational Skills	1	0	1
	ENGL 105	Writing Skills	3	0	3	ACCT 112	Fundamentals of Accounting II	4	0	4
	INSY 119	Business Information Processing and Applications	3	1	4	MGMT 112	Mathematical Methods for Business II	3	0	3
	MKTG 115	Principles of Marketing	3	0	3	MGMT 131	Principles and Practices of Management	3	0	3
	ACCT 111	Fundamentals of Accounting I	4	0	4	OFTE 120	Keyboarding	0	0	0
						PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2
	Total		19	1	20	Total		17	0	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELB 220	Life and Teachings of Jesus	2	0	2	FNCE 287	Principles of Finance	3	0	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	MGMT 231	Human Resource Management	3	0	3
	ACCT 221	Intermediate Accounting I	3	0	3	MGMT 152	Business Law II (Company Law)	3	0	3
	ECON 210	Principles of Microeconomics	3	0	3	BIOL 105	Human Biology	2	0	2
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	ACCT 222	Intermediate Accounting II	3	0	3
	MGMT 220	Business Statistics I	3	0	3	ECON 211	Principles of Macroeconomics	3	0	3
	RELT 255	Introduction to Christian Ethics	2	0	2	MGMT 221	Business Statistics II	3	0	3
	Total		17	0	17	Total		20	0	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ECON 310	Intermediate Microeconomics	3	0	3	ECON 315	Intermediate Macroeconomics	3	0	3
	OFAD 306	Business Communications	3	0	3	MGMT 494	Business Research Methods	3	0	3
	MGMT 378	Entrepreneurship	3	0	3	FNCE 329	Money, Banking and Financial Markets	3	0	3
	ACCT 341	Cost Accounting	3	0	3	INSY 305	Management Information Systems	3	0	3
	ACCT 361	Taxation	3	0	3	ACCT 342	Managerial Accounting	3	0	3
	Total		15	0	15	Total		15	0	15
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	MKTG 380	Quantitative Techniques	3	0	3	FNCE 455	International Finance	3	0	3
	FNCE 467	Investment Analysis and Portfolio Management	3	0	3	FNCE 480	Management of Financial Institutions	3	0	3
	FNCE 470	Financial Management	3	0	3	MGMT 475	Production and Operation Management	3	0	3
	FNCE 473	Financial Derivatives	3	0	3	FNCE 475	Advanced Corporate Finance	3	0	3
	FNCE 474	Intermediate Corporate Finance	3	0	3	FNCE 485	Corporate Internship in Finance	2	0	2
	FNCE 496	Finance Research Project	3	0	3	FNCE 420	Public Finance	3	0	3
						MGMT 477	Business Ethics	3	0	3
	Total		18	0	18	Total		20	0	20

COURSE DESCRIPTIONS

ACCT 110 Bookkeeping and Accounting 2 Credits

A practical course which deals with how to keep personal accounts and financial records for professionals and merchandising concerns. It emphasizes the need for students to be able to understand the general principles of bookkeeping and accounting, the accounting cycle and a clear understanding of financial reporting including how to read and use the various financial statements in making sound financial decisions. The course is for non-business majors and it will be a zero credit for those who are intending to take Business as a major or minor.

ACCT 111 Fundamentals of Accounting I 4 Credits

A study of basic accounting concepts and principles; accounting records used in the accounting cycle; preparation of financial statements for service, professional, and trading enterprise. Topics dealing with cash control and receivables, accounting principles and control of inventories, prepaid expenses, investments, plant assets, and intangibles are also covered in this course.

ACCT 112 Fundamentals of Accounting II 4 Credits

As a continuation of Fundamentals of Accounting I the course deals with liabilities and stockholders equity accounts. It also deals with partnership and corporate forms of business ownership and the accounting associated with such ownership, basic accounting concepts and principles in the area of Managerial Accounting, manufacturing accounting systems, standard costing, and the mechanism of planning, controlling, and decision making related to capital investments. *Prerequisite: ACCT 111.*

ACCT 221 Intermediate Accounting I 3 Credits

A review of the basic accounting concepts and principles with the objective of acquiring a broader perspective in the area of financial statement preparation, current assets, noncurrent assets and their related revenue accounts. It also covers the recent FASB pronouncements. *Prerequisites: An average grade of C+ for Accounting majors and minors in ACCT 111 and ACCT 112.*

ACCT 222 Intermediate Accounting II 3 Credits

As a continuation of Intermediate Accounting I, the course includes current and non-current liabilities, stockholders equity, the related revenue, expense accounts, and the statement of changes in financial position. It also includes a study of accounting concepts and principles in miscellaneous topics such as accounting for pension and post-retirement benefits. Also covered in this course are accounting changes and error analysis, basic financial analysis and full disclosures in financial statements. *Prerequisite: ACCT 221.*

ACCT 341 Cost Accounting 3 Credits

A study of cost determination, accumulation, and allocation procedures. The course covers the area of job order costing and process costing. It also covers standard costs, transfer pricing, cost classification, cost book keeping and cost method, differential cost and revenue analysis. *Prerequisite: ACCT 112*

ACCT 342 Managerial Accounting 3 Credits

Topics such as budgeting, variance analysis, cost volume profit relationships, and relevant costs for decision making are covered. It also includes performance evaluation

decisions, capital expenditure decisions, planning and control in decentralized operations, marginal and absorption cost
Prerequisites: MGMT 220, MGMT 221 and ACCT 112

ACCT 360 Public Sector Accounting 3 Credits

The study of fundamental accounting procedures used by government, hospitals, schools, welfare societies, clubs and churches. Topics covered include the analysis and interpretation of non-profit financial statements and fund accounting. *Prerequisite: ACCT 222.*

ACCT 361 Taxation 3 Credits

A study of the general principles of income taxation as it applies to individuals, proprietorships and corporations, and the tax structures in Kenya. Students are required to prepare income tax returns for individuals and corporations. Value added tax, transfer tax, and other related topics are also covered in this course. The course may require a field trip. *Prerequisite: ACCT 112.*

ACCT 418 Accounting Information Systems 3 Credits

The course provides general introduction to the three levels of Financial Information Systems with emphasis on operational Level Accounting Information Systems. The major components of computerized accounting systems are discussed. Reviews on various accounting subsystems design are done by the students while also considering integrated systems. There is hands-on experience on some major common productivity and application software used in accounting information systems, like Spreadsheet, Database, Quickbooks, Sun Accounting system, etc. *Prerequisite: INSY 119.*

ACCT 451 Advanced Accounting I 3 Credits

Advanced financial accounting theory with problems in consolidation and mergers. Inter-company transfer of assets, debt and security transactions, and consolidated financial statements are studied in this course. The equity method of accounting for investments in the securities of subsidiary companies together with the various patterns of equity ownership is emphasized. *Prerequisite: ACCT 222.*

ACCT 452 Advanced Accounting II 3 Credits

This is a continuation of Advanced Accounting I. A study of branch and consignment accounting, foreign currency accounting, partnership accounting, and accounting for non-profit organizations such as universities, hospitals and governments. Topics on international accounting and harmonization of accounting standards worldwide are also covered. *Prerequisite: ACCT 451.*

ACCT 461 Auditing I 3 Credits

The examination of financial statements as applied by internal and external auditors. Auditing theory, audit standards and professional ethics are covered in this course. *Prerequisites: ACCT 221 and MGMT 221.*

ACCT 462 Auditing II 3 Credits

A continuation of Auditing I, the course covers the detailed audit of the balance sheet accounts and the related revenue and expense accounts. Principles of internal control are emphasized. It also includes topics in operational and governmental audit. Practical audit problems and auditing in an electronic data processing environment are incorporated in this course. The course may require a field trip. *Prerequisite: ACCT 461.*

ACCT 484 Practical Experience in Accounting 1 Credit

This course provides a link between accounting theory and practice. It also serves as a review of the concepts, principles and processes in accounting as they are applied in actual practice including the preparation of books of accounts using an accounting software. *Prerequisite: Junior standing in Accounting.*

ACCT 485 Corporate Internship in Accounting 2 Credits

The course is an internship program that prepares the student for the challenges of the workplace. The student must complete a total of twelve (12) continuous weeks of practical experience in a well-established company such as a bank, manufacturing or merchandising business, hospital, university, or an accounting/auditing firm. *Prerequisite: ACCT 484.*

ACCT 496 Accounting Research Project 3 Credits

This is a demonstration of a study in accounting conducted on an individual basis. It is an original piece of work on any accounting topic of interest approved and supervised by the instructor. A research paper or report is required. A seminar presentation may also be required. *Prerequisites: Senior standing in Accounting and MGMT 494.*

BSED 253 Investment 3 Credits

This course is intended to equip the learners with the necessary knowledge, skills, attitudes, values and competencies to understand the various investment opportunities available. The course covers; types of investment (Kenya Government, local authority and other securities, foreign securities, and bonds, debentures, loan capital, shares, redemption, drawings, sinking funds, interests, dividends, investment trusts, linked life assurance; free hold property, mortgages land rents and rates; stock exchange procedures (functions of the stockbrokers, quotations, contracts, commissions, stamp duties); transfers, stock market indices, Nairobi stock exchange-comparison with other stock exchange markets, practice of investment (selection of investment, assessment of risk calculation of yields, portfolio planning, management and review); timing, tax considerations, tax free and tax saving investments, speculation; public companies- formation and capitalization, capital structure and gearing; interpretation of financial statements; accounting ratios; company meetings; banking and taxation- definition, nature, assessment and collection, investment for the small investor and saver.

BSED 433 Financial and Managerial Accounting 3 Credits

This course is intended to equip the learner with the necessary knowledge, skills, attitudes, values and competencies of accounting principles, concepts and conventions; preparation of financial statements; and knowledge of costing and budgeting concepts and techniques. The course covers; definition of concepts, aims and Purpose of the course of accounting; the regulatory framework of accounting; recording of business transactions in various books of accounts; accounting for assets and liabilities; financial statements of profit and non-profit making organizations; analysis of financial statements; the cost of products for manufacturing and service activities; budgets and their applications; decision making; linear programming; network analysis; decision tree.

BSED 461 Auditing 3 Credits

This course is intended to equip the learner with the necessary knowledge, skills, attitudes, values and competences of the audit process in an organization. This course covers; definition, nature, Purpose of the course and scope of audit; client acceptance procedures; planning for the audit; internal control system; audit evidence; audit of major financial statement items; auditor's report; auditor's use of the computer; emerging trends and issues in auditing. *Prerequisite: BSED 433.*

FNCE 287 Principles of Finance 3 Credits

This course is an introduction to financial management techniques. Topics include forms of business organizations, time value of money, valuation of stocks and bonds, cost of capital, capital budgeting analysis, flow of funds, ratio analysis, working capital, various sources of corporate funds, international financial management, and other topics associated with successful business finance decisions in an internationally competitive environment. *Prerequisite: ACCT 112.*

FNCE 329 Money, Banking and Financial Markets 3 Credits

This course is meant to provide students with an overview of the financial system of a modern economy, the role of money, and financial markets. Its content covers an overview of the economy's financial system, definitions, functions, qualities, measurement and evolution of money and payment system; financial markets, types and functions, financial instruments, nature and structure of interest rates, term and risk structure of interest rates, information asymmetries and information costs, the problem of adverse selection and moral hazard, fundamental problem of financial intermediation. *Prerequisites: ECON211, ACCT112 and FNCE 287.*

FNCE 420 Public Finance 3 Credits

This course introduces students to the general principles underlying the role of the government in the provision of social or public goods. This course discusses the functions of public finance in Kenya fiscal institutions, the theory of private and public goods, fiscal expenditures and growth over time, public expenditure valuation methods including cost-benefit analysis, the structure of government revenue, taxation and tax system in Kenya, principles of taxation, types of taxes, merits and demerits, tax incidence and tax burden, the economics of public debt, government budget and budget process. *Prerequisites: ECON 310, ECON 315 and FNCE 329.*

FNCE 455 International Finance 3 Credits

The course examines the financial operations of the firm from an international point of view. Topics include exchange rate determination, foreign exchange risk management (hedging techniques B forward/futures, options and swaps), international financial markets (bond and equity and foreign exchange markets), balance of payments, trade documentation and international budgeting. *Prerequisite: FNCE 390.*

FNCE 467 Investment Analysis and Portfolio Management 3 Credits

The course introduces students to the investment management process. The coverage includes an introduction to modern portfolio theory, a study of capital asset pricing model (CAPM), asset pricing models (APM), security valuation principles

and practices, efficient markets, stock and bond valuation models, fundamental vs technical analysis, trading practices, performance evaluation and an introduction to the role of futures and options in hedging and speculation. The course may require a field trip. *Prerequisite: FNCE 329.*

FNCE 470 Financial Management 3 Credits

The course provides an in depth analysis of corporate finance including forecasting, financial planning and control, risk and return, asset pricing, analysis of financial statements, time value of money, bond and stock valuation, the financial environment (markets, financial institutions, and interest rates) capital structure choices, dividends policy, cost of capital and operating leverage. *Prerequisite: FNCE 287.*

FNCE 473 Financial Derivatives 3 Credits

This course is designed for students who seek to understand how financial engineering, especially derivatives and risk management techniques, can be used to advance the strategic goals of the firms. Coverage includes an analysis of derivative securities B financial futures, forward contracts, commodity futures, warrants, convertibles, options pricing, swaps, stock index futures, and interest rate futures. Emphasis will be placed on how these derivatives can be used for hedging and speculative purposes. The course may require a field trip. *Prerequisite: FNCE 467.*

FNCE 474 Intermediate Corporate Finance 3 Credits

This course provides an in-depth treatment of working capital analysis, cash budgeting, receivable management, credit policy, inventory management, long term financing decisions including sources of long-term funds and financial leverage. *Prerequisite: FNCE 470.*

FNCE 475 Advanced Corporate Finance 3 Credits

The course familiarizes students with most important tools, concepts and topics in the areas of corporate finance. It

provides in depth treatment of working capital analysis, long term financing decisions including sources of long-term funds, financial leverage, measurement of cost of capital, capital budgeting decision methods, projects cash flow analysis, risks in capital budgeting, optimal capital budget, and lease financing. *Prerequisite: FNCE 474.*

FNCE 480 Management of Financial Institutions 3 Credits

This course examines the major financial management issues confronting depository financial service firms. Specific topics include: asset and liability management techniques, profitability analysis and management of various risk areas such as interest rate risk, liquidity risk, capital management, and financial engineering as a management tool for financial institutions. Other topics include lending decisions and pricing of services and strategies of maintaining profitability and liquidity. The course may require a field trip. *Prerequisite: FNCE 329.*

FNCE 485 Corporate Internship in Finance 2 Credits

This course provides a link between finance theory and practice. It is an internship program that prepares the student for the challenges in the workplace. The student must complete a total of twelve (12) continuous weeks of practical experience in a well-established company such as a bank or other financial institutions, manufacturing or merchandising business, hospital, university, or financial consulting firm. *Prerequisite: Junior standing in Finance.*

FNCE 496 Finance Research Project 3 Credits

This is a demonstration of a study in finance conducted on an individual basis. It is an original piece of work on any finance topic of interest approved and supervised by the instructor. A research paper or report is required. A seminar presentation may also be required. *Prerequisite: MGMT 494.*

DEPARTMENT OF INFORMATION SYSTEMS AND COMPUTING

FACULTY

Nyamwamu, R., PhD Head of Department
Mayaka, K., PhD in progress
Fred Mobisa PhD in Progress
Omari, D., PhD in progress
Mwatati J., PhD in progress
Chepsiror, F., PhD in progress

Email: hod_isc@ueab.ac.ke

PHILOSOPHY

The department of Information Systems and Computing operates within the School of Business. It upholds that God is the Creator and Sustainer of the Universe and life; and is the source of true knowledge. The department, therefore, exists to promote, prepare, and inspire skilled information systems managers, computer technicians and network technologies professionals who embrace spiritual values, moral principles and innovativeness. These are nurtured to serve humanity with a sound understanding of the relevant disciplines of technologies and communication principles, software development methods in the broad areas of programming, systems analysis and design to the glory of God

MISSION

To produce skilled information systems managers, computer technicians and network technologies professionals who embrace spiritual values, moral principles in their information technological innovativeness for the service of God and humanity.

VISION

To be a recognized center of excellence in leveraging information technology in training, research and development. To foster an academic environment that uses information technology to solve current and future problems and to restore the lost image of God in man.

DEGREES OFFERED BY THE DEPARTMENT

The Department of Information System and Computing offers the following degrees:

1. Bachelor of Business Information Technology
2. Bachelor of Science in Information Technology
3. Bachelor of Science in Cybersecurity and Networks
4. Bachelor of Science in Software Engineering
5. Minor in Information Systems
6. Minor in Computer Science

BBIT LEARNING OUTCOMES

Graduates of the program are expected to:

1. Apply information technology skills to support organizations in conducting businesses.
2. Interpret fundamental IT concepts and apply the principles of Information Technology in modern organizations.
3. Integrate the theory and practice of information technology with the fundamental principles of business management, financial management, operations management, strategic planning, and marketing.
4. Demonstrate the computing and information system processes by critically evaluating existing systems with knowledge gained.

5. Participate in business process development on application development, selection, acquisition, implementation and usage.
6. Identify the prevailing legal principles and ethical issues associated with information technology in the workplace.

BSc IT LEARNING OUTCOMES

Graduates of the program are expected to:

1. Demonstrate proficiency in programming, software development, and system analysis to create innovative IT solutions.
2. Understanding of IT governance, project management, and strategic planning to align technology with business goals.
3. Ability to identify and mitigate cybersecurity risks, ensuring the security and integrity of IT systems and data.
4. Skills in collecting, analyzing, and visualizing data to derive insights and inform decision-making processes.
5. Demonstrated professionalism, ethical behavior, and effective communication in diverse technical and non-technical contexts.

CYBERSECURITY AND NETWORKS LEARNING OUTCOMES

Graduates of the program are expected to:

1. Understand and design secure computer networks, configure network devices, implement network security protocols, troubleshoot network problems.
2. Demonstrate a deep understanding of the core principles of cybersecurity, including network security, cryptography, systems security, and security architecture.
3. Implement cybersecurity measures to protect computer systems and networks from cyber attacks, analyze vulnerabilities, perform penetration testing, incident response, and digital forensics.
4. Identify and assess cybersecurity risks, and develop and implement risk mitigation strategies.
5. Develop scripts and programs for security automation, analysis, and incident response.
6. Understand and implement security solutions for cloud-based environments.
7. Communicate effectively about cybersecurity issues to technical and non-technical audiences.
8. Adhere to ethical and legal principles in the practice of cybersecurity.

SOFTWARE ENGINEERING LEARNING OUTCOMES

Graduates of the program are expected to:

1. Design and conduct experiments, as well as analyze and interpret data.
2. Design a system, component, or process to meet desired needs within realistic constraints.
3. Develop and execute incident response plans to effectively handle and mitigate security incidents.
4. Demonstrate proficiency in using security technologies such as antivirus software, intrusion detection systems, and security information and event management tools.
5. Use the techniques, skills, and modern engineering tools necessary for engineering practice.
6. Analyze, design, verify, validate, implement, apply, and maintain software systems.

CAREER OPPORTUNITIES

1. Software Developer
2. Systems Administrator
3. Database Administrator
4. Network Administrator
5. Network Engineer
6. IT Manager
7. Teacher/Lecturer
8. System Analyst
9. Cloud Engineer
10. Data Analyst
11. Cyber Security Officer
12. Security Analyst
13. Forensic Analyst
14. Information Systems Auditor
15. Or may pursue graduate studies in any of the major areas of study

ENTRANCE REQUIREMENTS

DIRECT ENTRY

A student seeking admission to this department for a degree program must meet the entry requirement to the university and also have a grade of C+ in Mathematics and a C+ in English at the KCSE or its equivalent for all the majors offered in the department. However, in addition to meeting the university entrance requirement, consideration for admission may be granted if the requirements specified for each major listed below are met

Bachelor of Science in Information Technology

A student with a C in Mathematics, Physics or Computer Studies C+ in English/Kiswahili at KCSE or its equivalent.

Bachelor of Science in Cybersecurity and Networks / Bachelor of Science in Software Engineering / Bachelor of Business Information Technology

A student with a C+ in Mathematics, a C+ and above in Physics, a C+ in English/Kiswahili at KCSE or its equivalent.

INTERDEPARTMENTAL TRANSFER

Bachelor of Business Information Technology

A grade of C+ in ENGL 105 and a mean grade of C+ in MATH 113 and MATH 114 and a C+ in INSY 119.

Bachelor of Science in Information Technology

A grade of C+ in ENGL 105 and a mean grade of C+ in COSC 111 and COSC 112 and a C+ in INSY 119.

Bachelor of Science in Cybersecurity and Networks:

A grade of C+ in ENGL 105, C+ in PHYS 100, INSY119 and a C+ in MATH 121.

Bachelor of Science in Software Engineering:

A grade of C+ in ENGL 105, C+ in PHYS 100, INSY119 and C+ in MATH 121.

Upgrading Students

Students who have a two-year diploma with a GPA of 3.00 and above- or three-year diploma from an institution recognized by the Ministry of Education, Science and Technology TVET act 2013 or a similar body or act in the country of origin can

upgrade to a degree in the department equivalent for all the majors offered in the department. However, in addition to meeting the university entrance requirement, consideration for admission may be granted if the requirements specified for each major listed below are met:

GRADUATION REQUIREMENTS

1. A minimum overall GPA of 2.00 on a scale of 4.00
2. A minimum GPA of 2.25 for all courses in the core area
3. A minimum GPA of 2.25 for all courses in the specialization
4. A minimum GPA of 2.25 for all courses in the cognates
5. A minimum GPA of 2.25 for all courses in the minor area
6. A minimum of twelve (12) continuous weeks, of practical experience in an established company approved by the department
7. A grade of C(Plain) is required in all departmental course units

COURSE REQUIREMENTS

Student upgrading from UEAB Diploma will be exempted from the following courses:

Code	Course Title	Credits
RELT 207	Christian Beliefs	2
MGMT 130	Fundamentals of Management	3
INSY 119	Business Information Processing and Applications	4
INSY 281	System Analysis and Design	3
COSC 261	Operating Systems	3
COSC 161	Fundamentals of Programming	3
LITE 151	Introduction to Literary Appreciation	2
ENVI 227	Environment and Society	2
ELECT 100	Basic Electronics Maintenance	1

As per the UEAB academic policy, a student may take challenge examinations for not more than 10 Credit Hours. A challenge examination is a specially designed examination in a subject area for those students who wish to challenge certain courses to which they have been exposed at an acceptable level. No grade of less than a B will be accepted to grant the credits applied for, and no more than 10 credits shall be earned through challenge examination.

Student upgrading from UEAB Diploma can challenge the following courses:

Code	Course Title	Credits
INSY 211	Relational Database Management System	3
COSC 212	Computer Organization and Architecture	3

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

SUMMARY

General Education Requirements	29
Core Courses	49
Specialization	36
Cognates	32
Total	146 Credits

General Education Requirements courses that are exempted for this program

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Fundamentals of Mathematics	3
ENGL 106	Speech Communication	1
OFTE 120	Keyboarding	0
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
Total		12

GENERAL EDUCATION REQUIREMENTS COURSES

29 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT255	Introduction to Christian Ethics	2
PSYC 101/ SOC 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FDNT 115	Cooking	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1

WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		29

CORE COURSES

49 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Data Structures and Algorithm	3
COSC 217	Introduction to Linux Administration	3
COSC 180	Routing and Switching	3
COSC 222	Fundamentals of Software Engineering	3
COSC 228	Computer Organization and Architecture	3
COSC 237	Networks and Telecommunication	3
COSC 238	Professional Practices in IT	3
COSC 261	Operating Systems	3
COSC 272	Object Oriented Design and Programming	3
COSC 300	Introduction to IOT and Cloud Computing	3
COSC 305	Foundations of Cyber Security	3
COSC 440	Artificial Intelligence	3
INSY 119	Business Information Processing and Applications	4
INSY 443	Research Methods in IT	3
INSY 399	Practical Experience	3
Total		49

SPECIALIZATION COURSES

36 Credits

Code	Course Title	Credits
COSC 230	Introduction to Machine Learning	3
COSC 343	Foundations of Human-Computer Interaction	3
COSC 391	Data Mining	3
COSC 444	Information System Auditing Control & Assurance	3
COSC 485	Computer Graphics	3
INSY 211	Relational Database Management Systems	3
INSY 281	Systems Analysis and Design	3
INSY 305	Management Information Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 316	E-Commerce	3
INSY 492	Senior Project	3
INSY 497	IT Project Management	3
Total		36

COGNATE COURSES

32 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
MGMT 151	Business Law I	3
MGMT 231	Human Resource Management	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
MGMT 378	Entrepreneurship	3
Total		32

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY FOR UPGRADERS

SUMMARY

General Education Requirements	16
Core Courses	40
Specialization	29
Cognates	31
Total	116 Credits

Upgrading students will be exempted from the following general requirement courses:

Code	Course Title	Credits
HLED 110	Health Principles	1
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Science	2
HIST 119	Issues in Development Studies	2
AGRI 105	Principles of Agricultural Technology	2
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0
LITE 151	Introduction to Literary Appreciation	2
SWFI 207	Family Issues	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENGL 106	Speech Communication	1
	Vocational Skills	1
Total		25

Core course that is exempted

Code	Course Title	Credits
INSY 119	Business Information Processing and Applications	4

Depending on the Diploma concentration the following Core courses shall be exempted:

Diploma with emphasis on Software Development:

Code	Course Title	Credits
COSC 161	Fundamentals of programming	3
COSC 228	Computer Organization and Architecture	3
COSC 261	Operation Systems	3

Diploma with emphasis on Networking or Communications:

Code	Course Title	Credits
COSC 240	Network Administration	3
COSC 228	Computer Organization and Architecture	3
COSC 261	Operation Systems	3

Courses that may be transferred

Code	Course Title	Credits
COSC 261	Operating Systems	3
COSC 161	Fundamentals of Programming	3

Courses that may be challenged

Code	Course Title	Credits
INSY 211	Relational Database Management Systems	3
INSY 281	System Analysis and Design	3

GENERAL EDUCATION REQUIREMENTS COURSES

16 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
RELH 155	Adventists Heritage	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		16

CORE COURSES

40 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Algorithm and Data Structures	3
COSC 180	Routing and Switching	3
COSC 217	Introduction to Linux Administration	3
COSC 228	Computer Organization and Architecture	3
COSC 237	Networks and Telecommunication	3
COSC 261	Operating Systems	3
COSC 272	Object Oriented Design and Programming	3
COSC 305	Cyber Security	3
COSC 440	Artificial Intelligence	3
COSC 300	Introduction to IOT and Cloud Computing	3
INSY 443	Research Methods in IT	2
INSY 399	Industrial Attachment	2
COSC 238	Professional Practices in IT	3
Total		40

SPECIALIZATION COURSES

29 Credits

Code	Course Title	Credits
COSC 440	Artificial Intelligence	3
COSC 444	Information System Auditing Control & Assurance	3
INSY 281	Systems Analysis and Design	3
INSY 305	Management Information Systems	3
INSY 211	Relational Database Management Systems	3
INSY 315	Mobile and Web Technologies	3
COSC 343	Foundations of Human-Computer Interaction	3
INSY 492	Senior Project	2
COSC 391	Data Mining	3
INSY 497	IT Project Management	3
Total		29

COGNATE COURSES**31 Credits**

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ECON 210	Principles of Microeconomics	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
MGMT 131	Principles and Practice of Management	3
MGMT 231	Human Resource Management	3
MKTG 215	Principles of Marketing	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
MGMT 378	Entrepreneurship	3
Total		31

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

SUMMARY

General Education Requirements	27
Core Courses	53
Specialization	41
Cognates	25
Total	146 Credits

General Education Requirements courses that are exempted for this program:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Fundamentals of Mathematics	3
ENGL 106	Speech Communication	1
OFTE 120	Keyboarding	0
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
Total		12

GENERAL EDUCATION REQUIREMENTS COURSES**27 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation / Introduction to Literary Appreciation	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3

PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FDNT 115	Cooking	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES**53 Credits**

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Algorithm and Data Structures	3
COSC 180	Routing and Switching	3
COSC 217	Introduction to Linux Administration	3
COSC 220	Fundamentals of Software Engineering	3
COSC 212	Computer Organization and Architecture	3
COSC 237	Networks and Telecommunication	3
COSC 238	Professional Practices in IT	3
COSC 261	Operating Systems	3
COSC 272	Object Oriented Design and Programming	3
COSC 302	Introduction to IOT and Cloud Computing	3
COSC 305	Foundations of Cyber Security	3
COSC 340	Networks Administration	3
COSC360	Ethical Hacking	3
COSC 440	Artificial Intelligence	3
INSY 119	Business Information Processing and Applications	4
INSY 443	Research Methods in IT	2
INSY 299	Industrial Attachment	2
Total		53

SPECIALIZATION COURSES**41 Credits**

Code	Course Title	Credits
COSC 241	Software Architecture and Design	3
COSC 230	Introduction to Machine Learning	3
COSC 343	Foundations of Human-Computer Interaction	3
COSC 391	Data Mining	3
COSC 438	Information Theory	3
COSC 444	Information System Auditing Control & Assurance	3
COSC 485	Computer Graphics	3
INSY 211	Relational Database Management Systems	3
INSY 281	Systems Analysis and Design	3
INSY 305	Management Information Systems	3
COSC 306	Real Time and Embedded Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 492	Senior Project	2
INSY 497	IT Project Management	3
Total		41

COGNATE COURSES**25 Credits**

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ECON 210	Principles of Microeconomics	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
COSC 150	Applied Statistics in IT	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
MGMT 378	Entrepreneurship	3
Total		25

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY FOR UPGRADERS

SUMMARY

General Education Requirements	16
Core Courses	37
Specialization	29
Cognates	29
Total	111 Credits

Upgrading students will be exempted from the following general requirement courses:

Code	Course Title	Credits
HLED 110	Health Principles	1
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Science	2
HIST 119	Issues in Development Studies	2
AGRI 105	Principles of Agricultural Technology	2
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0
LITE 151	Introduction to Literary Appreciation	2
SWFI 207	Family Issues	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENGL 106	Speech Communication	1
	Vocational Skills	1

Core course that is exempted

Code	Course Title	Credits
INSY 119	Business Information Processing and Applications	4

Depending on the Diploma concentration the following Core courses shall be exempted:

Diploma with emphasis on Software Development:
Courses that may be transferred

Code	Course Title	Credits
COSC 161	Fundamentals of programming	3
COSC 212	Computer Organization and Architecture	3
COSC 261	Operating Systems	3

Diploma with emphasis on Networking or Communications:

Code	Course Title	Credits
COSC 240	Network Administration	3
COSC 212	Computer Organization and Architecture	3
COSC 261	Operating Systems	3

Courses that may be transferred

Code	Course Title	Credits
COSC 261	Operating Systems	3
COSC 161	Fundamentals of Programming	3

Courses that may be challenged

Code	Course Title	Credits
INSY 211	Relational Database Management Systems	3
INSY 281	System Analysis and Design	3

GENERAL EDUCATION REQUIREMENTS COURSES**16 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
RELH 155	Adventists Heritage	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		16

CORE COURSES**37 Credits**

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Algorithm and Data Structures	3
COSC 217	Introduction to Linux Administration	3
COSC 180	Routing and Switching	3
COSC 212	Computer Organization and Architecture	3
COSC 237	Networks and Telecommunication	3
COSC 261	Operating Systems	3
COSC 272	Object Oriented Design and Programming	3
COSC 440	Artificial Intelligence	3
COSC 300	Introduction to IOT and Cloud Computing	3
COSC 305	Cyber Security	3
COSC360	Ethical Hacking	3
INSY 443	Research Methods in IT	2
INSY 399	Industrial Attachment	2
COSC 238	Professional Practices in IT	3
Total		37

SPECIALIZATION COURSES**29 Credits**

Code	Course Title	Credits
COSC 440	Artificial Intelligence	3
INSY 281	Systems Analysis and Design	3
INSY 305	Management Information Systems	3
INSY 211	Relational Database Management Systems	3

INSY 306	Mobile and Web Technologies	3
COSC 343	Foundations of Human-Computer Interaction	3
INSY 492	Senior Project	2
COSC 391	Data Mining	3
INSY 497	IT Project Management	3
COSC 305	Cyber Security	3
Total		29

COGNATE COURSES 29 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ECON 210	Principles of Microeconomics	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
MGMT 151	Business Law I	3
MGMT 131	Principles and Practice of Management	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
MGMT 378	Entrepreneurship	3
Total		29

BACHELOR OF SCIENCE IN CYBERSECURITY AND NETWORKS

SUMMARY

General Education Requirements	27
Core Courses	58
Specialization	39
Cognates	22
Total	146 Credits

General Education Requirements courses that are exempted for this program

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Fundamentals of Mathematics	3
ENGL 106	Speech Communication	1
OFTE 120	Keyboarding	0
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2

GENERAL EDUCATION REQUIREMENTS COURSES 27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation / Introduction to Literary Appreciation	2
EDUC 215	Introduction to Philosophy of Christian Education	2

PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELB 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FDNT 115	Cooking	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES 58 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Data Structures and Algorithms	3
COSC 217	Introduction to Linux Administration	3
COSC 212	Computer Organization And Architecture	3
COSC 261	Operating Systems	3
COSC 272	Object Oriented Programming	3
COSC 391	Data Mining	3
COSC 499	Industrial Attachment	2
COSC 438	Information Theory	3
COSC 440	Artificial Intelligence	3
COSC 498	Senior Project	3
INSY 119	Business Information Processing and Applications	4
INSY 211	Relational Database Management Systems	3
INSY 281	Systems Analysis and Design	3
INSY 316	Introduction to IOT and Cloud Computing	3
INSY 305	Management Information Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 443	Research Methods in IT	3
INSY 497	IT Project Management	3
Total		58

SPECIALIZATION COURSES 39 Credits

Code	Course Title	Credits
COSC 238	Professional Practices in IT	3
COSC 340	Networks Administration	3
COSC 305	Foundations of Cyber Security	3
COSC 452	Threat Intelligence and Analysis	3
COSC 180	Routing and Switching	3

COSC 345	Advanced Routing and Switching	3
COSC 346	Cryptography in Data and Network Security	3
COSC 349	Wireless Communication	3
COSC 360	Ethical Hacking	3
COSC 370	Digital Forensic	3
COSC 410	Satellite, Optical and Mobile Communication Systems	3
COSC 391	Computer Network Design and Monitoring	3
COSC 445	Information System Auditing Control & Assurance	3
Total		39

COGNATE COURSES

22 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
MATH 121	Discrete Mathematics	3
MATH 341	Boolean Algebra	3
MGMT 131	Principles and Practice of Management	3
MGMT 378	Entrepreneurship	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
Total		22

BACHELOR OF SCIENCE CYBERSECURITY AND NETWORKS FOR UPGRADERS

SUMMARY

General Education Requirements	16
Core Courses	45
Specialization	27
Cognates	28
Total	116 Credits

Upgrading students will be exempted from the following general requirement courses

Code	Course Title	Credits
HLED 110	Health Principles	1
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Science	2
HIST 119	Issues in Development Studies	2
AGRI 105	Principles of Agricultural Technology	2
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0
LITE 151	Introduction to Literary Appreciation	2
SWFI 207	Family Issues	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENGL 106	Speech Communication	1
	Vocational Skills	1

Students with a diploma with emphasis on Networking or Communications are exempted from the following core Courses

Courses that may be transferred

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
INSY 315	Mobile and Web Technologies	3

Courses that may be challenged

Code	Course Title	Credits
INSY 211	Relational Database Management Systems	3
INSY 281	System Analysis and Design	3

GENERAL EDUCATION REQUIREMENTS COURSES

16 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114 / FREN 103	Language Skills in Kiswahili / Beginning French II	2
EDUC 215	Introduction to Philosophy of Christian Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		16

CORE COURSES

45 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Data Structures and Algorithms	3
COSC 217	Introduction to Linux Administration	3
COSC 272	Object Oriented Programming	3
COSC 300	Introduction to IOT and Cloud Computing	3
COSC 343	Foundations of Human-Computer Interaction	3
COSC 399	Industrial Attachment	2
COSC 438	Information Theory	3
COSC 440	Artificial Intelligence	3
INSY492	Senior Project	3
INSY 211	Relational Database Management Systems	3
INSY 281	Systems Analysis and Design	3
INSY 305	Management Information Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 443	Research Methods in IT	2
INSY 497	IT Project Management	3
Total		45

SPECIALIZATION COURSES

27 Credits

Code	Course Title	Credits
COSC 238	Professional Practices in I.T	3
COSC 303	Real Time and Embedded Systems	3
COSC 180	Routing and Switching	3
COSC 344	Data and Network Security	3
COSC 345	Advanced Routing and Switching	3
COSC 349	Wireless Communications	3

COSC 410	Satellite, Optical and Mobile Communication Systems	3
COSC 391	Computer Network Design and Monitoring	3
COSC 444	Information System Auditing Controls & Assurance	3
Total		27

COGNATE COURSES 28 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ECON 210	Principles of Microeconomics	3
MATH 121	Discrete Mathematics	3
MATH 341	Boolean Algebra	3
MGMT 131	Principles and Practices of Management	3
MGMT 378	Entrepreneurship	3
MKTG 215	Principles of Marketing	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
Total		28

BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

SUMMARY

General Education Requirements	27
Core Courses	67
Specialization	30
Cognates	25
Total	149 Credits

General Education Requirements courses that are exempted for this program

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
INSY 107	Information Technology Today	2
MATH 100	Fundamentals of Mathematics	3
ENGL 106	Speech Communication	1
OFTE 120	Keyboarding	0
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
RELT 255	Introduction to Christian Ethics	2

GENERAL EDUCATION REQUIREMENTS COURSES 27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
EDUC 215	Introduction to Philosophy of Christian Education	2

PEAC 107	Physical and Recreational Activities	1
AGRI105	Principles of Agricultural Technology	2
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethic	2
PSYC 101/ SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES 67 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Data Structures and Algorithms	3
COSC 180	Routing and Switching	3
COSC 217	Introduction to Linux Administration	3
COSC 228	Computer Organization And Architecture	3
COSC 237	Networks and Telecommunication	3
COSC 238	Professional Practices in I.T	3
COSC 261	Operating Systems	3
COSC 272	Object Oriented Design and Programming	3
COSC 306	Real Time and Embedded Systems	3
COSC 343	Foundations of Human-Computer Interaction	3
COSC 399	Industrial Attachment	3
COSC 440	Artificial Intelligence	3
COSC 498	Senior Project	3
INSY 119	Business Information Processing and Applications	4
INSY 211	Relational Database Management Systems	3
INSY 281	Systems Analysis and Design	3
COSC 300	Introduction to IOT and Cloud Computing	3
INSY 305	Management Information Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 443	Research Methods in IT	2
COSC 305	Foundations of Cyber Security	3
Total		67

SPECIALIZATION COURSES 30 Credits

Code	Course Title	Credits
COSC 220	Fundamentals of Software Engineering	3
COSC 241	Software Architecture and Design	3
COSC 304	Formal Methods for Software Engineering	3
COSC 397	Software Project Management	3
COSC 421	Software Quality Engineering and Testing	3
COSC 429	Metrics and Statistical Method for Software Engineering	3
COSC 444	Information System Auditing Controls & Assurance	3
COSC 485	Computer Graphics	3
COSC 391	Data Mining	3
COSC 213	Software Process Requirement Engineering and Specification	3
Total		30

COGNATE COURSES 25 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ECON 210	Principles of Microeconomics	3
MATH 121	Discrete Mathematics	3
MATH 341	Boolean Algebra	3
MGMT 131	Principles and Practices of Management	3
MGMT 378	Entrepreneurship	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
Total		25

BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING FOR UPGRADERS

SUMMARY

General Education Requirements	16
Core Courses	48
Specialization	30
Cognates	28
Total	122 Credits

Upgrading students will be exempt from the following general requirement courses:

Code	Course Title	Credits
HLED 110	Health Principles	1
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Science	2
HIST 119	Issues in Development Studies	2
AGRI 105	Principles of Agricultural Technology	2
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0
LITE 151	Introduction to Literary Appreciation	2
SWFI 207	Family Issues	2
MGMT 103	Basic Management and Entrepreneurial Skills	2

INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENGL 106	Speech Communication	1
	Vocational Skills	1

The students with diploma with emphasis in Software Engineering will be exempted from the following courses

Code	Course Title	Credits
INSY 119	Business Information Processing and Applications	4
INSY 161	Fundamentals of Programming	3
COSC 228	Computer Organization and Architecture	3
COSC 261	Operation Systems	3

Courses that may be transferred

Code	Course Title	Credits
COSC 217	Introduction to Linux Administration	3
INSY 315	Mobile and Web Technologies	3

Courses that may be challenged

Code	Course Title	Credits
INSY211	Relational Database Management Systems	3
INSY281	System Analysis and Design	3

GENERAL EDUCATION REQUIREMENTS COURSES**16 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
RELB 220	Life and Teachings of Jesus	2
RELB 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		16

CORE COURSES**48 Credits**

Code	Course Title	Credits
COSC 162	Algorithms and Data Structures	3
COSC 180	Routing and Switching	3
COSC 217	Introduction to Linux Administration	3
COSC 237	Networks and Telecommunications	3
COSC 272	Object Oriented Design and Programming	3
COSC 303	Real Time and Embedded Systems	3
COSC 305	Cyber Security	3
COSC 343	Foundations of Human-Computer Interaction	3
COSC 399	Industrial Attachment	2
COSC 440	Artificial Intelligence	3
COSC 498	Senior Project	2
INSY 211	Relational Database Management Systems	3

INSY 281	Systems Analysis and Design	3
INSY 300	Introduction to IOT and Cloud Computing	3
INSY 305	Management Information Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 443	Research Methods in IT	2
Total		48

SPECIALIZATION COURSES 30 Credits

Code	Course Title	Credits
COSC 220	Fundamentals of Software Engineering	3
COSC 241	Software Architecture and Design	3
COSC 304	Formal Methods for Software Engineering	3
COSC 397	Software Project Management	3
COSC 421	Software Quality Engineering and Assurance	3
COSC 429	Metrics and Statistical Method for Software Engineering	3
COSC 485	Computer Graphics	3
COSC 391	Data Mining	3
COSC 213	Software Process Requirements, Engineering and Specification	3
Total		30

COGNATE COURSES 28 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ECON 210	Principles of Microeconomics	3
MATH 121	Discrete Mathematics	3
MATH 341	Boolean Algebra	3
MGMT 131	Principles and Practices of Management	3
MKTG 215	Principles of Marketing	3
OFAD 306	Business Communications	3
COSC 150	Applied Statistics in IT	3
MGMT 378	Entrepreneurship	3
Total		28

COGNATE COURSE 3 Credits

Code	Course Title	Credits
MGMT 378	Entrepreneurship	3
Total		3

MINOR IN COMPUTER SCIENCE

SUMMARY

Core Courses	24
Cognates	6
Total	30 Credits

CORE COURSES 24 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Data Structures and Algorithms	3
COSC 212	Computer Organization and Architecture	3
COSC 217	Introduction to Linux Administration	3
COSC 272	Object Oriented Design and Programming	3
COSC 305	Cyber Security	3
INSY 211	Relational Database Management Systems	3
INSY 281	System Analysis and Design	3
INSY 305	Management Information Systems	3
INSY 315	Mobile and Web Technologies	3
Total		24

COGNATE COURSE 6 Credits

Code	Course Title	Credits
MATH 121	Discrete Mathematics	3
MGMT 378	Entrepreneurship	3
Total		6

MINOR IN INFORMATION SYSTEMS

SUMMARY

Core Courses	27
Cognates	3
Total	30 Credits

CORE COURSES 27 Credits

Code	Course Title	Credits
COSC 161	Fundamentals of Programming	3
COSC 162	Data Structures and Algorithms	3
COSC 212	Computer Organization and Architecture	3
INSY 211	Relational Database Management Systems	3
INSY 315	Mobile and Web Technologies	3
INSY 281	System Analysis and Design	3
INSY 305	Management Information Systems	3
COSC 305	Cyber Security	3
COSC 217	Introduction to Linux Administration	3
Total		27

Bachelor of BUSINESS INFORMATION TECHNOLOGY (BBIT)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3
	MUGR 100/ LITE 151	Music Appreciation / Introduction to Literary Appreciation	2	0	2	HLED 110	Health Principles	1	0	1
	PEAC 107	Physical and Recreational Activities	1	0	1	COSC 161	Fundamentals of Programming	2	1	3
	ENGL 105	Writing Skills	3	0	3	ACCT 112	Fundamentals of Accounting II	4	0	4
	ACCT 111	Fundamentals of Accounting I	4	0	4	AGRI 105	Principles of Agricultural Technology	1	1	2
	INSY 119	Business Information Processing and Applications	3	1	4	MGMT 130	Fundamentals of Management	3	0	3
	BIOL 105	Human Biology	2	0	2		Vocational Skills	1	0	1
						COSC 180	Routing and Switching	2	1	3
	Total		17	1	18	Total		17	3	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	COSC 111	Computational Mathematics I	3	0	3	RELT 255	Introduction to Christian Ethics	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	COSC 217	Introduction to Linux Administration	2	1	3
	COSC 162	Data Structures and Algorithms	2	1	3	INSY 211	Relational Database Management Systems	2	1	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2	0	2	COSC 150	Applied Statistics in IT	3	0	3
	COSC 237	Networks and Telecommunication	2	1	3	COSC 112	Computational Mathematics II	3	0	3
	MGMT 151	Business Law I	3	0	3	COSC 230	Introduction to Machine Learning	2	1	3
	COSC 212	Computer Organization and Architecture	2	1	3					
	Total		18	3	21	Total		16	3	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	COSC 261	Operating Systems	2	1	3	COSC 302	Introduction to IOT and Cloud Computing	2	1	3
	COSC 272	Object Oriented Design and Programming	2	1	3	INSY 305	Management Information Systems	3	0	3
	COSC 220	Fundamentals of Software Engineering	3	0	3	ECON 210	Principles of Microeconomics	3	0	3
	INSY 281	Systems Analysis and Design	2	1	3	MGMT 231	Human Resource Management	3	0	3
	COSC 305	Foundations of Cybersecurity	2	1	3	COSC 238	Professional Practices in I.T	3	0	3
	Total		11	4	15	INSY 315	Mobile and Web Technologies	3	0	3
	Total		11	4	15	Total		17	1	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	INSY 316	E-Commerce	3	0	3	COSC 485	Computer Graphics	2	1	3
	COSC 343	Foundations of Human-Computer Interaction	3	0	3	MGMT 378	Entrepreneurship	3	0	3
	INSY 443	Research Methods in IT	3	0	3	INSY 492	Senior Project	3	0	3
	COSC 444	Information System Audit Control and Assurance	3	0	3	COSC 440	Artificial Intelligence	3	0	3
	COSC 391	Data Mining	2	1	3	MKTG 215	Principles of Marketing	3	0	3
	OFAD 306	Business Communications	3	0	3	INSY 497	IT Project Management	3	0	3
	Total		17	1	18	INSY 399	Industrial Attachment	3	0	3
	Total		17	1	18	Total		20	1	21

Bachelor of Science in INFORMATION TECHNOLOGY (BSc IT)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3
	MUGR100 / LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	HLED 110	Health Principles	1	0	1
	PEAC 107	Physical and Recreational Activities	1	0	1	COSC 161	Fundamentals of Programming	2	1	3
	ENGL105	Writing Skills	3	0	3	COSC 150	Applied Stats in IT	3	0	3
	ACCT 111	Fundamentals of Accounting I	4	0	4	COSC 180	Routing and Switching	2	1	3
	INSY 119	Business Information Processing and Applications	3	1	4	MGMT 131	Principles and Practices of Management	3	0	3
	Total		15	1	16	Total		15	2	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AGRI 105	Principles of Agricultural Technology	1	1	2	RELT 255	Introduction to Christian Ethics	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	COSC 111	Computational Mathematics I	3	0	3	COSC 112	Computational Mathematics II	3	0	3
	COSC 237	Networks and Telecommunication	2	1	3	BIOL 105	Human Biology	2	0	2
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	COSC 217	Introduction to Linux Administration	2	1	3
	COSC 162	Data Structures and Algorithm	2	1	3	COSC 212	Computer Organization and Architecture	2	1	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	INSY 211	Relational Database Management Systems	2	1	3
	COSC 230	Introduction to Machine Learning	2	1	3					
	Total		16	3	19	Total		15	3	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	COSC 261	Operating Systems	2	1	3	COSC 302	Introduction to IOT and Cloud Computing	2	1	3
	COSC 272	Object Oriented Design and Programming	2	1	3	INSY 305	Management Information Systems	3	0	3
	INSY 281	Systems Analysis and Design	2	1	3	COSC 340	Network Administration	2	1	3
	COSC 305	Foundations of Cyber Security	2	1	3	COSC 241	Software Architecture and Design	2	1	3
	COSC 306	Real Time and Embedded Systems	3	0	3	COSC 238	Professional Practices in I.T	3	0	3
	COSC 220	Fundamentals of Software Engineering	3	0	3	INSY 315	Mobile and Web Technologies	3	0	3
	Total		14	4	18	Total		15	3	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	COSC 438	Information Theory	3	0	3	COSC 485	Computer Graphics	2	1	3
	COSC 343	Foundations of Human-Computer Interaction	3	0	3	MGMT 378	Entrepreneurship	3	0	3
	INSY 443	Research Methods in IT	2	0	2	INSY 492	Senior Project	2	0	2
	ECON 210	Principles of Microeconomics	3	0	3	COSC 440	Artificial Intelligence	3	0	3
	COSC 391	Data Mining	2	1	3	COSC 370	Ethical Hacking	2	1	3
	OFAD 306	Business Communications	3	0	3	INSY 497	IT Project Management	3	0	3
	COSC 444	Information Audit Control and Assurance	3	0	3	INSY 399	Industrial Attachment	2	0	2
	Total		19	1	20	Total		17	2	19

Bachelor of Science in CYBERSECURITY AND NETWORKS

Four-Year Course Plan

Key: T - Theory; L -Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	INSY 119	Business Information Processing and Applications	3	1	4	COSC 161	Fundamentals of Programming	2	1	3	
	RELH 155	Adventist Heritage	2	0	2	COSC 180	Routing and Switching	2	1	3	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	COSC 150	Applied Stats in IT	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	RELT 207	Christian Beliefs	3	0	3	
	ENGL 105	Writing Skills	3	0	3	HLED 110	Health Principles	1	0	1	
	ACCT 111	Fundamentals of Accounting I	4	0	4	MGMT 131	Principles and Practices of Management	3	0	3	
	PSYC 101/ SOC1 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2		Vocational Skills	1	0	1	
	Total			17	1	18	Total			18	2
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	INSY 281	Systems Analysis and Design	2	1	3	RELT 255	Introduction to Christian Ethics	2	0	2	
	COSC 212	Computer Organization and Architecture	2	1	3	COSC 217	Introduction to Linux Administration	2	1	3	
	COSC 162	Data Structures and Algorithms	2	1	3	COSC 345	Advanced Routing and Switching	2	1	3	
	COSC 261	Operating System	2	1	3	INSY 211	Relational Database Management Systems	2	1	3	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	COSC 305	Foundations of Cybersecurity	2	1	3	BIOL105	Human Biology	2	0	2	
						AGRI 105	Principles of Agricultural Technology	1	1	2	
	Total			12	5	17	Total			13	4
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COSC 360	Ethical Hacking	2	1	3	COSC 445	Networks systems auditing control and assurance	3	0	3	
	COSC 346	Cryptography in Data and Network Security	2	1	3	COSC 316	Introduction to IOT and Cloud Computing	2	1	3	
	COSC 272	Object Oriented Programming	2	1	3	INSY 305	Management Information Systems	3	0	3	
	COSC 349	Wireless Communications	2	1	3	COSC 452	Threat Intelligence and Analysis	2	1	3	
	COSC 391	Data Mining	2	1	3	INSY 315	Mobile and Web Technologies	3	0	3	
	MATH 341	Boolean Algebra	3	0	3	COSC 238	Professional Practices in IT	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2						
	Total			15	5	20	Total			16	2
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COSC 439	Networks Administration	2	1	3	INSY 497	IT Project Management	3	0	3	
	INSY 443	Research Methods in IT	3	0	0	INSY 492	Senior Project	3	0	0	
	COSC 438	Information Theory	3	0	3	COSC 440	Artificial Intelligence	2	1	3	
	COSC 437	Digital Forensic	2	1	3	COSC 410	Satellite, Optical and Mobile Communication Systems	2	1	3	
	OFAD 306	Business Communications	3	0	3	COSC 450	Computer Network Design and Monitoring	2	1	3	
	MGMT 378	Entrepreneurship	3	0	3	COSC 499	Industrial Attachment	3	0	3	
	Total			16	2	18	Total			15	3

Bachelor of Science in SOFTWARE ENGINEERING

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELH 155	Adventist Heritage	2	0	2	COSC 220	Fundamentals of Software Engineering	3	0	3
	MUGR 100/ LITE 151	Music Appreciation / Introduction to Literary Appreciation	2	0	2	MATH 121	Discrete Mathematics	3	0	3
	PEAC 107	Physical and Recreational Activities	1	0	1	HLED 110	Health Principles	1	0	1
	ENGL 105	Writing Skills	3	0	3	COSC 180	Routing and Switching	2	1	3
	ACCT 111	Fundamentals of Accounting I	4	0	4	MGMT 131	Principles and Practices of Management	3	0	3
	INSY 119	Business Information Processing and Applications	3	1	4	COSC 161	Fundamentals of Programming	2	1	3
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	BIOL 105	Human Biology	2	0	2
	Total		17	1	18	Total		16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	COSC 162	Data Structures and Algorithms	2	1	3	COSC 213	Software Process, Requirements Engineering and Specifications	3	0	3
	AGRI 105	Principles Agricultural Technology	3	0	3	INSY 211	Relational Database Management Systems	2	1	3
	COSC 261	Operating Systems	2	1	3	RELT 207	Christian Beliefs	3	0	3
	RELB 220	Life and Teachings of Jesus	2	0	2	COSC 217	Introduction to Linux Administration	2	1	3
	COSC 212	Computer Organization and Architecture	2	1	3	COSC 150	Applied Statistics in IT	3	0	3
	COSC 237	Networks and Telecommunication	2	1	3	COSC 238	Professional Practices in I.T	3	0	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2		Vocational Skills	1	0	1
	Total		15	4	19	Total		17	2	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	COSC 302	Introduction to IOT and Cloud Computing	2	1	3
	COSC 272	Object Oriented Design and Programming	2	1	3	COSC 444	Information System Audit Controls and Assurance	3	0	3
	COSC 343	Foundations of Human-Computer Interaction	3	0	3	INSY 305	Management Information Systems	3	0	3
	INSY 281	Systems Analysis and Design	2	1	3	ECON 210	Principles of Microeconomics	3	0	3
	COSC 305	Foundations of Cyber Security	2	1	3	COSC 241	Software Architecture and Design	2	1	3
	MATH 341	Boolean Algebra	3	0	3	INSY 315	Mobile and Web Technologies	2	1	3
	Total		14	3	1	Total		15	3	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	COSC 304	Formal Methods for Software Engineering	3	0	3	MGMT 378	Entrepreneurship	3	0	3
	INSY 443	Research Methods in IT	2	0	2	INSY 492	Senior Project	3	0	3
	COSC 391	Data Mining	2	1	3	COSC 440	Artificial Intelligence	3	0	3
	COSC 306	Real Time and Embedded Systems	2	1	3	COSC499	Industrial Attachment	3	0	3
	OFAD 306	Business Communications	3	0	3	COSC 397	Software Project Management	3	0	3
	COSC421	Software Quality Engineering	3	0	3	COSC 429	Metrics and Statistical Method for Software Engineering	3	0	3
						COSC 485	Computer Graphics	2	1	3
	Total		15	2	17	Total		20	1	21

COURSE DESCRIPTIONS

COSC 111 Computational Mathematics I 3 Credits

Computational Mathematics I for IT provides a foundational understanding of mathematical concepts and techniques essential for solving problems in information technology. The course emphasizes computational methods and their applications in IT contexts, preparing students to tackle a variety of problems using mathematical tools and algorithms.

COSC 112 Computational Mathematics II 3 Credits

Computational Mathematics II for IT builds on foundational mathematical and computational concepts, delving deeper into advanced topics and techniques crucial for tackling complex problems in information technology. The course focuses on expanding mathematical methods and computational tools, with an emphasis on their application in IT contexts such as data science, machine learning, and algorithm design. (*Prerequisite: COSC 111*).

COSC 150 Applied Statistics in IT 3 Credits

This course provides a comprehensive introduction to applied statistics using the R programming language. Designed for students with a basic understanding of statistics, it focuses on practical data analysis skills and statistical techniques applicable to real-world problems.

COSC 161 Fundamentals of Programming 3 Credits

An introduction to program methodology using the C programming language including computer usage, problem solving, algorithm development, control structures, arrays, program style, program design, code documentation techniques, and program correctness as well as a brief overview of computer history. Further study of programming methodology by examining program specifications, design, coding, correctness and style with additional coverage of pointers and arrays. A number of programming exercises are assigned. Students will be required to complete a project as a course requirement. *Prerequisite: INSY 119*.

COSC 162 Data Structures and Algorithms 3 Credits

In-depth study of data structures and recursion, implementation of simple lists, stacks, queues, and files as well as a brief overview of computer ethics and the impact of computers upon society. Continuation of the study of programming methodology with particular emphasis on program specification, design, and implementation of data structures and algorithms such as manipulation, searching, sorting and traversal for linked structures, trees and hash tables. Students will be required to complete a project as a course requirement. *Prerequisite: COSC 161*.

COSC 180 Routing and Switching 3 Credits

This introductory course on Routing and Switching provides students with a solid foundation in the fundamental concepts, technologies, and protocols that underpin modern computer networks. Students will explore the principles of routing and switching, including the architecture of routers and switches, network topologies, and the TCP/IP model. The course delves into various routing protocols (e.g., RIP and OSPF) and switching technologies (e.g., VLANs, STP), emphasizing hands-on configuration and troubleshooting using industry-standard equipment and simulators. By the end of the course, students will be well-equipped to design, implement, and maintain small to medium-sized network infrastructures. *Prerequisite INSY 119*.

COSC 213 Software Process, Requirements Engineering and Specifications 3 Credits

This course provides a comprehensive foundation in software process definition, modeling, and requirements engineering. Students will learn how to define and model software processes, including process components like Process Steps and Process Scripts, and explore various representation methods such as text-based, template-based, and graphical-based models. The course covers essential techniques in requirements engineering, focusing on elicitation, analysis, validation, and specification using methods like Prototyping, Scenario Analysis, and Quality Function Deployment. Additionally, students will engage with standards for requirements specifications, apply Computer-Aided Software Engineering (CASE) tools, and practice review techniques like Peer Review and Structured Walkthroughs. Through individual and group projects, students will develop practical skills in performing software requirements engineering tasks and creating process guidelines. *Prerequisites: COSC 220*.

COSC 217 Introduction to Linux Administration 3 Credits

This course focuses on the basics of the Linux Operating System. The course provides an introduction to Linux system administration basics including the linux file system, the bash shell, file management, user management, process management, shell scripting and system security. *Prerequisite: INSY 119*.

COSC 220 Fundamentals of Software Engineering 3 Credits

This course Surveys the fundamentals of software engineering. Topics include a preview of software engineering, nature and qualities of software, software engineering principles, software design, specification, verification, and production process, Management of software engineering, software engineering tools and environments. Other topics include the future of software engineering and ethics and social responsibility of a software engineer. *Prerequisite: INSY 119*.

COSC 212 Computer Organization and Architecture 3 Credits

This course provides students with the fundamental knowledge for software process definition and modelling. Software process content includes a framework for process definition and modelling, engineering of process, enactment of the process, and description of the process properties. Other subject related to process definition covered are Process, Process Step, Process Element, and Process Script. The course also addresses various representation to process modelling, such as text based, template based, and graphical based. Executable presentations, in the form of process program, are studied. These executable presentations include process definition and modelling tools, such as State Transition Diagrams, Entry Task Validation Exit, State charts, and Petri Nets, and automated tools for process representation. *Prerequisite: COSC 162*.

COSC 237 Networks and Telecommunications 3 Credits

This course introduces students to the networking field. Topics include an overview of network terminology and protocols, local area networks, wide-area networks, OSI model, cabling, Ethernet, IP addressing, and network standards. Upon completion, students should have an understanding of network

addressing, network terminologies, models, subnetting, and TCP/IP Protocols. The course also covers an overview of essential network services and wireless networking. Students learn to evaluate, select, and implement different networking options within an organization. *Prerequisite: COSC 180.*

COSC 238 Professional Practices in IT 3 Credits

This course provides learners with the knowledge and skills required to navigate the professional, ethical, and legal dimensions of the information technology field. It covers professional codes of conduct, workplace ethics, intellectual property, data privacy, cybersecurity responsibilities, and the social implications of IT solutions. Learners will also explore communication skills, teamwork, project management practices, and career development strategies essential for IT professionals. The course emphasizes cultivating integrity, accountability, and responsible decision-making to prepare students for ethical practice and leadership in the IT industry.

COSC 241 Software Design and Architecture 3 Credits

An in-depth look at software design. Continuation of the study of design patterns, frameworks, and architectures. Survey of current middle-ware architectures. Design of distributed systems using middle ware. Component based design. Measurement theory and appropriate use of metrics in design. Designing for qualities such as performance, safety, security, reusability, reliability, etc. Measuring internal qualities and complexity of software. Evaluation and evolution of designs. Basics of software evolution, re-engineering, and reverse engineering. *Prerequisite: COSC 220.*

COSC 261 Operating Systems 3 Credits

This course examines the facilities provided in a modern operating system. Students learn: Process management including a synchronous concurrent processes and deadlock; Virtual storage management and job and process scheduling; Multiprocessing; Disk scheduling and file and database systems; Performance and security. *Prerequisite: COSC 212 (Field Trip).*

COSC 272 Object Oriented Design and Programming 3 Credits

This course emphasizes the study of object-oriented development methodologies and the application of these methodologies to advanced data structures using a chosen OO language. Also included is a survey of other object-oriented languages and programming environments (Java, C++). A number of programming exercises are assigned using selected data structures and object-oriented design methodologies. Students will be required to complete a project in Java as a course requirement. *Prerequisite: COSC 162.*

COSC 302 Introduction to IOT and Cloud Computing 3 Credits

The Internet of Things (IOT) and Cloud Computing have kick started the next industrial revolution. Major companies such as Ericsson, Cisco among others have projected that by 2020, 30-50 Billion of things will be connected to the Internet. These technologies will allow consumers to monitor and take action remotely, visualize and process data at real time while optimizing available resources. IOT will also enable devices to communicate with each other and make decisions on their own without any human interventions. Students will be introduced to basics of IOT and Cloud Computing, service models and deployment models. *Prerequisite: COSC 272.*

COSC 304 Formal Methods for Software Engineering 3 Credits

A study of Mathematical logic and proof techniques, discrete structures, and other Mathematical topics that are used in software engineering; the use of formal methods in software specifications; and the use of formal methods throughout the software life-cycle. *Prerequisite: 213 (field Trip).*

COSC 305 Foundations of Cybersecurity 3 Credits

This cybersecurity course offers a comprehensive introduction to the field, equipping students with the knowledge and skills needed to safeguard data, systems, and networks against diverse cyber threats. Through a blend of theoretical lectures, hands-on exercises, and real-world case studies, students explore core cybersecurity concepts like threat modeling, risk assessment, and security frameworks. The curriculum covers essential topics including network security, cryptography, access control, identity and authentication, malware analysis, and incident response, emphasizing practical experience in network setup, vulnerability assessments, and security policy design. Ethical and legal considerations are also addressed. By analyzing recent cyber incidents and emerging threats, students develop critical thinking skills, preparing them to protect digital assets in our increasingly interconnected world. This course is an essential foundation for aspiring cybersecurity professionals. *Prerequisite COSC 162 (Field Trip).*

COSC 306 Real Time and Embedded Systems 3 Credits

A survey of the system architecture and software engineering aspects of real time systems such as operating systems, and process control software. Students will be introduced to the basics of designing, interfacing, configuring, and programming embedded systems. The course includes a term project using Arduino or Raspberry Pi. *Prerequisites: COSC 261.*

COSC 337 Networks and Telecommunications 3 Credits

This course introduces students to the networking field. Topics include an overview of network terminology and protocols, local area networks, wide-area networks, OSI model, cabling, Ethernet, IP addressing, and network standards. Upon completion, students should have an understanding of network addressing, network terminologies, models, subnetting, and TCP/IP Protocols. The course also covers an overview of essential network services and wireless networking. Students learn to evaluate, select, and implement different networking options within an organization. This course is taught to students taking Computer studies as a teaching subject. *Prerequisite: CSED 118 (For Computer Studies students only).*

COSC 340 Networks Administration 3 Credits

This Course Introduces Students to the networking field. Topics include an overview of network terminology and protocols, local area networks, wide-area networks, OSI model, cabling, Ethernet, IP addressing, and network standards. Topics include service administration, user administration, and security and privacy issues. Students completing this course have experience in administering an internetwork of computers with a variety of services. Students will be introduced to VOIP, IOT and virtualization design and administration. Other topics include the future of networking and ethics and social responsibility of a network engineer. *Prerequisite: COSC 237 (Field Trip).*

COSC 343 Foundations of Human-Computer Interaction **3 Credits**

This course provides an introduction to skills and concepts of HCI that will enable students to design systems that meet human needs. Topics covered include: cognitive psychology, human factors, interaction styles, user analysis, task analysis, interaction design methods and techniques, and evaluation. The primary focus of this course is on the users and their tasks. Students will be required to complete a project as a course requirement. *Prerequisite: INSY 305 (Field Trip).*

COSC 345 Advanced Routing and Switching **3 Credits**

This Laboratory based course will introduce the student to installation and configuration of advanced routing and switching solutions, including Dynamic routing protocols (OSPF, EIGRP) Border Gateway Protocol (BGP), Multiprotocol Label Switching (MPLS), Quality of Service (QoS), High Availability (HA), and IP version 6 (Ipv6) and VPN's over routed networks. The course will introduce the student to monitoring and troubleshooting routed and switched implementations. *Prerequisite: COSC 180.*

COSC 346 Cryptography in Data and Network Security **3 Credits**

This course delves into the fascinating realm of cryptography as a cornerstone of data and network security. Through a comprehensive exploration of cryptographic principles, algorithms, and protocols, students will gain a deep understanding of how encryption techniques safeguard sensitive information in modern digital landscapes. Topics covered include classical and modern cryptographic systems, cryptographic mathematics, cryptographic protocols, key management, and practical applications in network security. By the end of the course, students will be equipped with the knowledge and skills necessary to analyse, implement, and design robust cryptographic solutions, making them adept defenders of data integrity and confidentiality in the evolving world of cybersecurity. *Prerequisite COSC 344.*

COSC 349 Wireless Communications **3 Credits**

This course gives an introduction to the fundamentals of the wireless communications systems. The course covers the design, planning, implementation, operation and troubleshooting of Wireless LANs. It covers an overview of technologies, security, and design best practices for wireless networks. *Prerequisite: COSC 342.*

COSC 360 Ethical Hacking **3 Credits**

In this dynamic and hands-on course, students will immerse themselves in the world of ethical hacking, becoming adept at simulating cyberattacks to identify vulnerabilities and fortify digital defences. Through a blend of theory and practical exercises, participants will learn the techniques employed by hackers to exploit weaknesses in systems, networks, and applications, all while adhering to the highest ethical standards. Topics covered include penetration testing methodologies, reconnaissance, vulnerability assessment, exploitation, post-exploitation, and the art of ethical reporting. By the course's conclusion, students will be equipped with the skills and mindset needed to proactively defend against cyber threats, making them valuable assets in the realm of cybersecurity and ethical hacking. *Prerequisite COSC 212.*

COSC 370 Digital Forensic **3 Credits**

This course offers a comprehensive exploration of the dynamic field of digital forensics, providing students with the essential

skills and knowledge to investigate cybercrimes, analyse digital evidence, and uncover the truth in a digital age. Topics covered include digital evidence collection, preservation, and analysis techniques, forensic tools and software, legal and ethical considerations, and real-world case studies. Students will learn to dissect digital artifacts, such as files, network traffic, and system logs, to reconstruct events, identify perpetrators, and support legal proceedings. By the end of the course, students will be proficient in the art of digital investigation, prepared to navigate complex cybercrime scenarios, and contribute to the preservation of justice and cybersecurity in the digital realm. *Prerequisite COSC 360 (Field Trip).*

COSC 372 Object Oriented Design and Programming **3 Credits**

This course emphasizes the study of object-oriented development methodologies and the application of these methodologies to advanced data structures using a chosen OO language. Also included is a survey of other object-oriented languages and programming environments (Java, C++). A number of programming exercises are assigned using selected data structures and object-oriented design methodologies. Students will be required to complete a project in Java as a course requirement. This course is offered for students taking Computer Studies as a teaching subject. *Prerequisite: COSC 162 (For Computer studies students only).*

COSC 391 Data Mining **3 Credits**

This course explores how this interdisciplinary field brings together techniques from databases, statistics, machine learning, and information retrieval. The course explores the main data mining methods currently used, including data warehousing and data cleaning, clustering, classification, association rules mining, query flocks, text indexing and searching algorithms, how search engines rank pages, and recent techniques for web mining. One of the main focuses in the field is the integration of these algorithms with relational databases and the mining of information from semi-structured data, and will examine the additional complications that come up in this case. *Prerequisite: COSC 302 (Field Trip).*

COSC 392 Computer Network Design and Monitoring **3 Credits**

This is a comprehensive course that delves into the core principles and advanced techniques of building and maintaining efficient computer networks. From designing scalable and secure network architectures to implementing cutting-edge monitoring tools and protocols, students will gain a deep understanding of the fundamentals of network infrastructure. Through practical exercises and real-world case studies, participants will also learn how to configure and manage network devices, troubleshoot connectivity issues, and implement monitoring and performance optimization techniques. By the end of the course, students will be equipped with the knowledge and tools necessary to design, implement, and continuously monitor high-performance computer networks, making them invaluable assets in the ever-evolving world of technology and connectivity. *Prerequisite COSC 345.*

COSC 397 Software Project Management **3 Credits**

The course covers the factors necessary for successful management of system development or enhancement projects. Both technical and behavioural aspects of project management are discussed. Focus is on management for enterprise-level systems. Software marketing principles is also discussed. *Prerequisite: INSY 281(Field Trip).*

COSC 399 Industrial Attachment 3 Credits

This is to expose the student to the current trends in computer applications in the industry. A log book of daily activities for the period, endorsed by the student's supervisor at the organization must be submitted at the end. This is a three-month course which must be done during the junior year in the department. *Prerequisite: 50hrs practicum done in the department.*

COSC 410 Satellite, Optical and Mobile Communication Systems 3 Credits

The course covers modern data transmission technologies starting from the component level and building up to complete system operation and management. Considers optical systems, satellite communications (with spacecraft and payload considerations), cellular mobile radio and telephony for voice and data traffic and their integration into global systems. *Prerequisite: COSC 340.*

COSC 421 Software Quality Engineering and Assurance 3 Credits

This course describes the overall approach to specifying software quality, achieving quality, and mapping a quality specification into an engineerable set of activities. It describes the major activities used to cross-check the quality of software artifact and its development process. This course provides a framework for understanding the application of software verifications and validation (V and V) processes and techniques throughout the software development cycle. Typical products of V and V processes are identified along with their possible V and V objectives. The course's emphasis is on validating the system at the requirements and design stages. This validation is then coherently extended into a discussion of testing concepts, planning and controlling of testing activity, and integration-level. *Prerequisite: COSC 301 (Field Trip).*

COSC 429 Metrics and Statistical Methods for Software Engineering 3 Credits

This course is concerned with three related topics of software measurement, statistical tools and methods, and applied experimental design in software engineering. Students are introduced to the principles and concepts relevant to measurement in software engineering including the representational theory of measurement, collection, analysis and validation of data. Also studied are frameworks such as Goal Question-metrics and Quality Function deployment paradigms for guiding measurements efforts. Statistical methods along with Statistical Process Control (SPC) tools such as Control Charts, Fishbone Diagram, scatter Diagrams and advanced subjects such as Taguchi's Robust Design technique and their application in software engineering are covered. Also explored are the concepts of experimental design, analysis of experiments, model building, ethics and presentation of experiments. *Prerequisite: COSC 222 or COSC 150 (Field Trip).*

COSC 438 Information Theory 3 Credits

The course covers Claude Shannon's theory on finding fundamental limits on compressing and reliably storing and communicating data, Historical background of information theory models or compilation systems, and coding theory. It also covers information and encoding, basic concepts of interactive computing, interactive terminals devices protocols, the teleprocessing environment, equipments and techniques, data transmission, lines, services, common carriers, line-control, error detection, algorithms and network design. *Prerequisites: COSC 229 and MATH 341.*

COSC 440 Artificial Intelligence 3 Credits

The Course Provides the Conceptual basis for understanding current trends in Artificial intelligence. Topics include both symbolic and numeric processing, intelligent search methods, problem representation (such as attention, search, control, Game trees, and Knowledge representations), machine learning, expert systems and a survey of social implications of AI; Application of AI techniques in natural languages scene analysis, robot planning and some Laboratory exercises in AI languages. The course introduces students to a range of topics in the field of artificial neural networks. The course covers information processing principles in biological systems. The course consists of the theory and properties of major neural network algorithms and architectures. *Prerequisite: COSC 391.*

COSC 444 Information Systems Audit Control and Assurance 3 Credits

This course aims at providing a thorough understanding of the IS audit practices and methods. It examines the process of analysing and reviewing internal controls, IS audit techniques and methodologies, evaluate, secure, and assure the integrity and reliability of information systems in the modern business environment. Computer forensics, legal and professional requirements, and the role of internal IS auditor. This course equips students with the knowledge and skills needed to understand the complexities of IT audit, control processes, risk management, and regulatory compliance, all essential components in maintaining the security and compliance of organizational information systems. *Prerequisite: COSC 305 (Field Trip).*

COSC 445 Network System Auditing Control & Assurance 3 Credits

This course offers a comprehensive examination of Network System Auditing Control & Assurance, providing students with the expertise needed to assess, enhance, and safeguard the integrity and security of complex networked systems. Through a blend of theoretical foundations and hands-on practical exercises, students will learn the principles of network auditing, risk assessment, control frameworks, and compliance standards. Topics encompass network vulnerability assessment, penetration testing, security policies, and the utilization of audit tools and methodologies. By mastering these skills, students will be well-prepared to evaluate network systems, detect vulnerabilities, and implement robust controls to mitigate risks, ensuring the resilience and compliance of critical information infrastructures in an ever-evolving digital landscape. *Prerequisite COSC 305 (Field Trip).*

COSC 485 Computer Graphics 3 Credits

The course introduces computer graphics and examines raster and/or vector images, 2D and 3D images, polygons, transformations, segments, windowing, clipping, and hidden line removal. *Prerequisites: INSY 315.*

COSC 498 Senior Project 3 Credits

This is a major project in application software development in a selected area of interest. A plan for a project is made. The plan must include a problem statement, constraints, objective, and background material with reference, a procedure, and a time schedule for the discrete tasks. Students will be required to complete a major project as a course requirement. *Prerequisite: INSY443.*

COSC 499 Industrial Attachment**3 Credits**

This course provides learners with practical, hands-on experience in real workplace environments, bridging the gap between theoretical knowledge and industry practice. During the attachment, learners are placed in IT-related organizations where they apply classroom learning to tasks such as systems development, network management, database administration, cybersecurity, user support, and other professional activities. The program emphasizes skill development, professional conduct, problem-solving, and adaptability, enabling learners to gain industry exposure, build networks, and enhance their readiness for future careers in the dynamic field of information technology. This is a three-month (12 weeks) course which must be done during the junior year in the department. *Prerequisite: 50hrs practicum done in the department.*

CSED 118 Introduction to Computers**2 Credits**

This course introduces computer concepts including computer history, computer hardware, computer software, system development, types of information system, computer networks and information systems security. This course is designed to meet the general education requirements for students taking Computer studies as a teaching subject (For Computer Studies students only).

INSY 107 Information Technology Today**2 Credits**

The course introduces computer concepts including a discussion of computer history, computer hardware and problem-solving algorithms. Covers computer terminology, computer hardware and software, care and selection of a personal computer, current industry trends, the role of computers in application areas and ethical considerations, practical software applications including programming exposure, email and the internet. It includes hands-on usage of the computer in using Word processor, Spreadsheet, Database. This course is designed to meet the General Education Requirements of the humanities/sciences students.

INSY 108 Information Technology for Health Professionals**2 Credits**

The course examines the impact of information technology on a wide variety of health care fields. These include telemedicine, radiology, pharmacy, dentistry, surgery, rehabilitative therapies, and public health. The course includes information technology infrastructures and software in general, the latest information on medical informatics, informational resources, and electronic record keeping in the Health Information Technology decade, information technology in public health. Common software applications (i.e word processing, spreadsheet, etc). The students will learn about the most current computer and medical technologies. Privacy and Security issues are also discussed. (for Nursing, Public Health and MLS students)

INSY 119 Business Information Processing and Applications**4 Credits**

An introduction to the use of the computer in the business area. Introduce computer concepts including a discussion of computer history, computer hardware and software, components of a business information system, developing and information system, personal and shared information systems, the internet and the world wide web and information systems security. It includes an in-depth study and practical experience with several microcomputer application packages such as word processing, spreadsheets, database systems and graphics

presentations. *There will be 3 hours lecture and 1=3 hours of laboratory each week.*

INSY 136 Microcomputer Applications**3 Credits**

The course provides an in-depth study and practical experience with several typical microcomputer software packages such as spreadsheets, data-base systems, word processing, local area network software, communications software, Statistical and graphics packages (e.g. using SPSS and presentation graphics software). Students will be required to complete a project as part of course requirements. *Prerequisites: INSY107 or CSED 118.*

INSY 211 Relational Database Management Systems**3 Credits**

This course introduces learners to the concepts, principles, and practices of Relational Database Management Systems (RDBMS) as a foundation for effective data organization, storage, and retrieval in modern computing environments. Learners will explore relational database models, data normalization, Structured Query Language (SQL), and transaction management, while gaining hands-on experience in database design, implementation, and administration. Emphasis is placed on developing practical skills for managing data integrity, security, and scalability to support applications in business, research, and emerging technologies. *Prerequisite: INSY 119.*

INSY 281 Systems Analysis and Design**3 Credits**

The course provides a methodical approach to developing computer systems including system planning, analysis, feasibility study, design, testing, implementation and software maintenance. The role of the systems analyst and causes of systems failure are stressed throughout. Hardware/Software selection is also discussed. No programming assignments are involved; however, the course builds upon concepts to which the student has been exposed in previous computer classes. Students will be required to complete a project as a course requirement. *Prerequisite: INSY 119.*

INSY 305 Management Information Systems**3 Credits**

The course covers the use and effect of computer information processing in a business environment with emphasis on Management; computer system theory; business computing equipments; management concerns such as decision support systems, computer security, and data base management information systems; systems life cycle and systems analysis and design. Includes use of business software such as network systems, database implementations, statistical packages, forecasting programs, and simulations. *Prerequisite: INSY 119.*

INSY 315 Mobile and Web Technologies**3 Credits**

Mobile and Web programming provides students with the theoretical and practical skills necessary to design, build and maintain secure internet-based systems. There is a strong practical emphasis on the languages, tools, techniques and methodologies required to build real world solutions in today's inter-connected world. The considerable practical emphasis on the course allows for the smooth integration of graduates into the workplace. Students will develop an understanding of current and emerging technologies and best business/industrial standards to equip them to meet the demands of an increasingly technological world. The course will provide students with the professional, technical and project related capabilities applicable to the development of secure client-side

and server-side Internet based systems and prepares students for a broad range of careers in the fast-moving computing industry. (*Field Trip*). *Prerequisite: INSY 211.*

INSY 316 E- Commerce 3 Credits

The course covers foundations of e-Commerce, Benefits, Driving Forces, Impact, Retailing in e-Commerce, Direct Marketing, Online Customer Service, Internet Consumers and Market Research, Consumer Behaviour Model, Decision Making, Advertisement in Electronic Commerce, various forms of e-Commerce, Electronic Payment Systems, e-Commerce Security, e-Commerce strategy and implementation, Global and other issues in EC. Students learn to analyze existing e-business and e-commerce projects and recognize their strengths and weaknesses taking lessons learned into account when formulating their own plans for new and expanding e-Commerce. Students will be required to complete a project as a course requirement. *Prerequisite: INSY 315.*

INSY 318 Accounting Information Systems 3 Credits

The course provides general introduction to the three levels of Financial Information Systems with emphasis on operational Level Accounting Information Systems. The major components of computerized accounting systems are discussed. Reviews on various accounting subsystems design are done by the students while also considering integrated systems. There is hands-on experience on some major common productivity and application software used in accounting information systems, like Spreadsheet, Database, Quicken, Sun account system, etc. *Prerequisite: INSY 119.*

INSY 443 Research Methods in I.T 2 Credits

The course is designed to cultivate the necessary competencies for preparing students to carry out research in the domain of IT by enabling them to: understand concepts, principles and methods in the field of IT research; be aware of the leading edge trends and topics in IT research; and have competencies in

initiating, planning and executing IT research projects. Students will be required to do a research project on an area relevant to their major. *Prerequisite: ENGL 105.*

INSY 481 Systems Analysis and Design 3 Credits

The course provides a methodical approach to developing computer systems including system planning, analysis, feasibility study, design, testing, implementation and software maintenance. The role of the systems analyst and causes of systems failure are stressed throughout. Hardware/Software selection is also discussed. No programming assignments are involved; however, the course builds upon concepts to which the student has been exposed in previous computer classes. Students will be required to complete a project as a course requirement. This course is taught to students taking Computer Studies as a teaching subject. *Prerequisite: CSED 118 (For Computer Studies students only).*

INSY 492 Senior Project 2 Credits

This is a major project in application software development in a selected area of interest. A plan for a project is made. The plan must include a problem statement, constraints, objective, and background material with reference, a procedure, and a time schedule for the discrete tasks. Students are subjected to both seminar and oral examination on the projects undertaken. *Prerequisite: INSY443.*

INSY 497 IT Project Management 3 Credits

This course covers the factors necessary for successful management of I.T. system development and enhancement projects. Both the technical and behavioural aspects of project management are discussed, such as project management fundamentals, planning, estimation and budget scheduling, risk and change management, development management, project control, system test process, final phases and other issues *Prerequisite: COSC 305.*

DEPARTMENT OF MANAGEMENT

FACULTY

Tenai A., M.Econ PhD in Progress Ag. Head of Department
Abunda, J., MCom PhD in Progress.
Gitonga, N., PhD.
Ibeneme, C., PhD.
Kibirango, M., PhD.
Mambo, R., MBA PhD in Progress.
Masese, G., M.Econ, PhD in Progress
Misoi, M., PhD.
Omondi, R., MBA PhD in Progress.
Sang, M., PhD.

Email: hod_management@ueab.ac.ke

PHILOSOPHY

The Department of Management upholds that God is the Creator and Sustainer of the Universe and life; and is the source of true knowledge. The entrance of sin caused man's alienation from God. This fallen state rendered man selfish with distorted capacity to manage resources. Therefore, the Department of Management exists to restore man's relationship with God through the promotion, preparation, and inspiration of managers, marketers, economists and office administrators that embrace spiritual and professional values, moral principles and novelty in all their undertakings.

MISSION

To provide and advance knowledge, skills and attitudes that develop and qualify professional managers, marketers, economists and office administrators who uphold spiritual values, moral principles and novelty in managing resources for the service to God and humanity.

VISION

The Department of Management envisions being a world class department in producing excellent value-driven business experts.

OBJECTIVES OF THE PROGRAM

To graduate competent and ethical business graduates capable of effectively contributing to the national economic development and progressing to higher levels of business studies.

DEGREES OFFERED BY THE DEPARTMENT

1. Master of Business Administration
2. Bachelor of Business Administration in Management
3. Bachelor of Business Administration in Marketing
4. Bachelor of Business Administration in Office Administration
5. Minor in Management
6. Minor in Marketing
7. Minor in Economics

PROGRAM LEARNING OUTCOMES

A BBA graduate should be able to:

1. Carry out the key tasks in the business functional areas
2. Carry out relevant research to help in effective decision making
3. Solve emerging problems and challenges in modern business organizations through change in the value system of human beings.

4. Conduct business practices within acceptable legal and ethical framework within the biblical – Christian world view.
5. Communicate effectively to business stake-holders.
6. Serve as a resourceful team player

BBA CORE COURSES LEARNING OUTCOMES

At the end of the program the student is expected to:

1. Carry out key tasks in management functional areas.
2. Carry out relevant research to help in effective management decision making.
3. Conduct management practices within legal and acceptable legal and ethical framework.
4. Solve emerging problems and challenges in modern management of the organization.
5. Work effectively and be a resourceful team player.

MANAGEMENT SPECIALIZATION COURSES LEARNING OUTCOMES

1. Develop strategic and operational plans.
2. Design and implement quality management practices.
3. Analyze the international dimensions of organizational management.
4. Manage organizational projects.
5. Discuss and explore contemporary issues and theories in management.
6. Formulate and develop healthful manageable organization policies and values.

MARKETING SPECIALIZATION COURSES LEARNING OUTCOMES

1. Conduct relevant marketing research for effective marketing decisions
2. Develop innovative products and programs that effectively cater for customer needs and wants
3. Design competitive marketing strategies
4. Discuss and explore contemporary issues and theories in marketing.
5. Analyze the competitiveness of the market

OFFICE ADMINISTRATION SPECIALIZATION COURSES LEARNING OUTCOMES

1. Compose and produce quality business documents using technology
2. Engage lifelong learning to keep abreast of the development in the region employment market
3. Provide general administration and clerical support to high-level executives
4. Manage office communications and information
5. Maintain and manage business records effectively
6. Exhibit acceptable human relations skills in a diverse environment

CAREER OPPORTUNITIES FOR MANAGEMENT

1. Management Consulting
2. Entrepreneur
3. General Management
4. Non-Profit Organization Managers
5. Operation Management
6. Strategic Planning

CAREER OPPORTUNITIES FOR MARKETING

1. Brand/Product Manager
2. Event/Meeting Planner
3. Fundraiser
4. Market Research Analysts
5. Media Planner
6. Public Relations Representative
7. Sales Representative
8. Sales Manager
9. Marketing Consulting Manager
10. Advertising Executive, Planner or Director

CAREER OPPORTUNITIES FOR OFFICE ADMINISTRATION

1. Executive secretary/administrators
2. Office Manager
3. Administrative Assistant
4. Data Entry Clerk
5. Medical Transcriptionists
6. Paralegals and Legal Assistants
7. Maintain Database and Filing Systems

ENTRANCE REQUIREMENTS

DIRECT ENTRY

In addition to meeting the university entrance requirement, a grade of C in English and C in Mathematics at the KSCE or its equivalent is required in order to pursue a bachelor of Business Administration in Management, Marketing, or Office Administration.

UPGRADING STUDENTS

Students who have a two- or three-year diploma from an institution recognized by the Ministry of Education, Science and Technology TVET act 2013 or a similar body or act in the country of origin can upgrade to a degree in the department equivalent for all the majors offered in the department.

However, in addition to meeting the university entrance requirement, consideration for admission may be granted if the requirements specified for each major listed are met.

INTERDEPARTMENTAL TRANSFER

Students wishing to transfer from other departments of the University of Eastern Africa, Baraton, and have not met the direct entry requirement into the department as stipulated above, must obtain a mean (average) grade of a C in MATH 113 and 114 and an average of a C+ in ENGL.105 and ENGL 106 at the University of Eastern Africa, Baraton.

GRADUATION REQUIREMENTS

1. A minimum overall GPA of 2.00 on a scale of 4.00
2. A minimum GPA of 2.25 for all courses in the business core
3. A minimum GPA of 2.25 for all courses in the major concentration
4. A minimum GPA of 2.25 for all courses in the cognates
5. A minimum GPA of 2.25 for all courses in the minor area
6. A minimum of twelve (12) continuous weeks, of practical experience in an established company approved by the department chair-person, the student must score at least a grade of B- (minus) in practical experience to pass.

COURSE REQUIREMENTS

BACHELOR OF BUSINESS ADMINISTRATION IN MANAGEMENT

SUMMARY

General Education Requirements	27
Core Courses	75
Specialization	30
Cognates	12
Total	144 Credits

Management students are exempted from the following General Education Requirements:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agricultural Technology	2
PHYS 100	Concepts of Physics	2

GENERAL EDUCATION REQUIREMENTS COURSES

27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES**75 Credits**

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
ECON 329	Money, Banking and Financial Markets	3
FNCE 287	Principles of Finance	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management Information Systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I	3
MGMT 152	Business Law II	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques for Business	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES**30 Credits**

Code	Course Title	Credits
MGMT 335	Organization Behavior	3
MGMT 358	Risk Management	3
MGMT 256	Organization Theory	3
MGMT 357	Strategic Management	3
MGMT 440	Change Management	3
MGMT 460	Corporate Internship in Management	3
MGMT 467	International Management	3
MGMT 475	Productions and Operations Management	3
MGMT 482	Project Management	3
MGMT 495	Management Research Project	3
Total		30

COGNATE COURSES**12 Credits**

Code	Course Title	Credits
FNCE 470	Financial Management	3
INSY 281	System Analysis and Design	3
MKTG 484	Distribution, Logistics, and Pricing Management	3
OFAD 212	Office Management Organization Procedures	3
Total		12

BACHELOR OF BUSINESS ADMINISTRATION IN MANAGEMENT FOR UPGRADERS

SUMMARY

General Education Requirements	27
Core Courses	75
Specialization	30
Cognates	12
Total	144 Credits

Upgrading students will be exempted from the following General Education Requirements:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agricultural Technology	2
RELT 207	Christian Beliefs	
PHYS 100	Concepts of Physics	2

Recommended Challenge Examinations and Course Exemptions for Diploma Holders Upgrading to BBA

Students transitioning from a Diploma program to the Bachelor of Business Administration (BBA) may be eligible to undertake challenge examinations for the following courses:

Code	Course Title	Credits
MGMT 131	Human Resource Management	3
INSY 119	Business Information Processing and Applications	4
MKTG 115	Principles of Marketing	3

Additionally, the following courses may be granted exemption based on prior academic coverage:

Code	Course Title	Credits
MGMT 131	Human Resource Management	3
MGMT 151	Business Law 1	3
RELT 207	Christian Beliefs	3

This structure of exemptions and challenge examinations is designed to ensure that students upgrading to the BBA program maintain a minimum of 120 credits, in accordance with University policy. Under this arrangement, students will complete 134 credits, with 10 credits eligible for challenge.

GENERAL EDUCATION REQUIREMENTS COURSES

27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2

MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	1
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES

75 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
ECON 329	Money, Banking and Financial Markets	3
FNCE 287	Principles of Finance	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management Information Systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I	3
MGMT 152	Business Law II	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques for Business	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES

30 Credits

Code	Course Title	Credits
MGMT 335	Organization Behavior	3
MGMT 358	Risk Management	3
MGMT 256	Organization Theory	3
MGMT 357	Strategic Management	3
MGMT 440	Change Management	3
MGMT 460	Corporate Internship in Management	3
MGMT 468	International Management	3
MGMT 475	Productions and Operations Management	3
MGMT 482	Project Management	3
MGMT 495	Management Research Project	3
Total		30

COGNATE COURSES

12 Credits

Code	Course Title	Credits
FNCE 470	Financial Management	3
INSY 281	System Analysis and Design	3
MKTG 484	Distribution, Logistics, and Pricing Management	3
OFAD 212	Office Management Organization Procedures	3
Total		12

**BACHELOR OF BUSINESS
ADMINISTRATION IN MARKETING**

SUMMARY

General Education Requirements	27
Core Courses	75
Specialization	39
Cognates	5
Total	144 Credits

**Marketing students are exempted from the following
General Education Requirements**

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agricultural Technology	2
PHYS 100	Concepts of Physics	2

**GENERAL EDUCATION REQUIREMENTS
COURSES**

27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2

MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 255	Introduction to Christian Ethics	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES

75 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
ECON 329	Money, Banking and Financial Markets	3
FNCE 287	Principles of Finance	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management Information Systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
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MGMT 152	Business Law II	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques for Business	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES

39 Credits

Code	Course Title	Credits
MKTG 226	Consumer Behavior	3
MKTG 337	Principles and Practices of Retailing and Wholesaling	3
MKTG 342	Customer Care and Relationship Management	3
MKTG 448	Advertising and Promotions	3
MKTG 330	Services Marketing	3
MKTG 355	Global Marketing Strategies	3
MKTG 466	Sales Management	3
MKTG 431	Marketing Planning and Strategies	3
MKTG 475	Industrial Marketing	3
MKTG 460	Corporate Internship in Marketing	3
MKTG 484	Distribution, Logistics, and Pricing Management	3
MKTG 495	Marketing Research Project	3
MKTG 478	Digital Marketing Strategies and E-Commerce	3
Total		39

COGNATE COURSES

3 Credits

Code	Course Title	Credits
FNCE 470	Financial Management	3
Total		3

**BACHELOR OF BUSINESS
ADMINISTRATION IN MARKETING
FOR UPGRADERS**

SUMMARY

General Education Requirements	27
Core Courses	75
Specialization	39
Cognates	3
Total	144 Credits

Upgrading students will be exempted from the following General Education Requirements:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agricultural Technology	2
RELT 207	Christian Beliefs	
PHYS 100	Concepts of Physics	2

Recommended Courses for Challenge examination for students upgrading from Diploma:

Code	Course Title	Credits
MGMT 131	Principles and Practices of Management	3
MGMT 231	Human Resource Management	3
MKTG 115	Principles of Marketing	3
MGMT 151	Business Law 1	3
INSY 119	Business Information Processing and Applications	4
RELT 207	Christian Beliefs	3

GENERAL EDUCATION REQUIREMENTS COURSES

27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELB 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES

75 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3

ECON 315	Intermediate Macroeconomics	3
ECON 329	Money, Banking and Financial Markets	3
FNCE 287	Principles of Finance	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management Information Systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I	3
MGMT 152	Business Law II	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques for Business	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES

39 Credits

Code	Course Title	Credits
MKTG 226	Consumer Behavior	3
MKTG 337	Principles and Practices of Retailing and Wholesaling	3
MKTG 342	Customer Care and Relationship Management	3
MKTG 448	Advertising and Promotions	3
MKTG 330	Services Marketing	3
MKTG 355	Global Marketing Strategies	3
MKTG 466	Sales Management	3
MKTG 431	Marketing Planning and Strategies	3
MKTG 475	Industrial Marketing	3
MKTG 460	Corporate Internship in Marketing	3
MKTG 484	Distribution, Logistics, and Pricing Management	3
MKTG 495	Marketing Research Project	3
MKTG 478	Digital Marketing Strategies and E-Commerce	3
Total		39

COGNATE COURSES

3 Credits

Code	Course Title	Credits
FNCE 470	Financial Management	3
Total		3

BACHELOR OF BUSINESS ADMINISTRATION IN OFFICE ADMINISTRATION

SUMMARY

General Education Requirements	27
Core Courses	75
Specialization	37
Cognates	5
Total	144 Credits

Office Administration students are exempted from the following General Education Requirements Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agricultural Technology	2
PHYS 100	Concepts of Physics	2
OFTE 120	Keyboarding	0

GENERAL EDUCATION REQUIREMENTS COURSES 27 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 255	Introduction to Christian Ethics	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1

WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		27

CORE COURSES 75 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
ECON 329	Money, Banking and Financial Markets	3
FNCE 287	Principles of Finance	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management Information Systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I	3
MGMT 152	Business Law II	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques for Business	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES 37 Credits

Code	Course Title	Credits
OFAD 283	Typing I	3
OFAD 284	Typing II	3
OFAD 304	Shorthand I	3
OFAD 305	Shorthand II	3
OFAD 212	Office Management Organization and Procedures	3
OFAD 314	Records Management	3
OFAD 315	Office Administration Ethics and Public Relations	3
OFAD 457	Personality Development	3
OFAD 460	Corporate Internship in Office Administration	3
OFAD 485	Legal and Medical Office Procedures	4
OFAD 495	Office Administration Research Project	3
OFAD 476	Front Office and Secretarial Bureau Management	3
Total		37

COGNATE COURSES 5 Credits

Code	Course Title	Credits
FREN 103	Beginning French II	2
INSY 211	Database Management Systems	3
Total		5

BACHELOR OF BUSINESS ADMINISTRATION IN OFFICE ADMINISTRATION FOR UPGRADERS

SUMMARY

General Education Requirements	25
Core Courses	75
Specialization	37
Cognates	5
Total	142 Credits

Upgrading students will be exempted from the following General Education Requirements:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
MATH 100	Foundations of Mathematics	3
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agricultural Technology	2
RELT 207	Christian Beliefs	
PHYS 100	Concepts of Physics	2

Recommended Courses for Challenge examination for students upgrading from Diploma:

Code	Course Title	Credits
MGMT 131	Principles and Practices of Management	3
MGMT 231	Human Resource Management	3
MKTG 115	Principles of Marketing	3
MGMT 151	Business Law I	3
INSY 119	Business Information Processing and Applications	4
RELT 207	Christian Beliefs	3

GENERAL EDUCATION REQUIREMENTS COURSES

25 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	1
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		25

CORE COURSES

75 Credits

Code	Course Title	Credits
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate Macroeconomics	3
ECON 329	Money, Banking and Financial Markets	3
FNCE 287	Principles of Finance	3
INSY 119	Business Information Processing and Applications	4
INSY 305	Management Information Systems	3
MGMT 111	Mathematical Methods for Business I	3
MGMT 112	Mathematical Methods for Business II	3
MGMT 131	Principles and Practices of Management	3
MGMT 151	Business Law I	3
MGMT 152	Business Law II	3
MGMT 220	Business Statistics I	3
MGMT 221	Business Statistics II	3
MGMT 231	Human Resource Management	3
MGMT 378	Entrepreneurship	3
MGMT 477	Business Ethics	3
MGMT 494	Business Research Methods	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques for Business	3
OFAD 306	Business Communication	3
Total		75

SPECIALIZATION COURSES

37 Credits

Code	Course Title	Credits
OFAD 283	Typing I	3
OFAD 284	Typing II	3
OFAD 304	Shorthand I	3
OFAD 305	Shorthand II	3
OFAD 212	Office Management Organization and Procedures	3
OFAD 314	Records Management	3
OFAD 315	Office Administration Ethics and Public Relations	3
OFAD 457	Personality Development	3

OFAD 460	Corporate Internship in Office Administration	3
OFAD 485	Legal and Medical Office Procedures	4
OFAD 495	Office Administration Research Project	3
OFAD 476	Front Office and Secretarial Bureau Management	3
Total		37

COGNATE COURSES 5 Credits

Code	Course Title	Credits
FREN 103	Beginning French II	2
INSY 211	Database Management Systems	3
Total		5

MINOR IN ECONOMICS

SUMMARY

Core Courses	27
Electives	3
Total	30 Credits

CORE COURSES 27 Credits

Code	Course Title	Credits
ECON 221	Mathematical Methods for Economists I	3
ECON 222	Mathematical Methods for Economists II	3
ECON 310	Intermediate Microeconomics	3
ECON 315	Intermediate macroeconomics	3
ECON 326	International Economics	3
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
ECON 465	Economic Development	3
ECON 410	Introduction to Econometrics	3
Total		27

ELECTIVE COURSES 3 Credits

Code	Course Title	Credits
ECON 420	Public Finance	3
ECON 495	Independent Study in Economics	3
FNCE 287	Principles of Finance	3
MGMT 220	Business Statistics I	3

MINOR IN MANAGEMENT

SUMMARY

Core Courses	27
Electives	6
Total	33 Credits

CORE COURSES 24 Credits

Code	Course Title	Credits
ECON 341	Economics of Money and Banking	3
MGMT 231	Human Resource Management	3
MGMT 256	Organization Theory	3

MGMT 335	Organization Behavior	3
MGMT 357	Strategic Management	3
MGMT 379	Operations Research	3
MGMT 475	Production and Operations Management	3
MKTG 115	Principles of Marketing	3
MGMT 111	Mathematical Methods For Business I	3
Total		27

ELECTIVE COURSES 6 Credits

Code	Course Title	Credits
MGMT 131	Principles and Practices of Management	3
MGMT 468	International Management	3
FNCE 287	Principles of Finance	3
MGMT 358	Risk Management	3

MINOR IN MARKETING

SUMMARY

Core Courses	30
Electives	3
Total	33 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
MKTG 115	Principles of Marketing	3
MKTG 226	Consumer Behavior	3
MKTG 341	Customer Care and Relationship Management	3
MKTG 448	Advertising and Promotion	3
MKTG 330	Services Marketing	3
MKTG 431	Marketing Planning and Strategies	3
MKTG 475	Industrial Marketing	3
MGMT 379	Operations Research	3
MGMT 111	Mathematical Methods For Business I	3
CON 341	Economics of Money and Banking	3
Total		30

ELECTIVE COURSES 3 Credits

Code	Course Title	Credits
MKTG 137	Principles and Practices of Retailing and Wholesaling	3
MKTG 355	Global Marketing Strategies	3
FNCE 287	Principles of Finance	3
MKTG 466	Sales Management	3
MGMT 482	Project Management	3
MKTG 484	Distribution, Logistics and Pricing Management	3

Bachelor of BUSINESS ADMINISTRATION IN MANAGEMENT

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ACCT 111	Fundamentals of Accounting I	4	0	4	ACCT 112	Fundamentals of Accounting II	4	0	4
	PEAC 107	Physical and Recreational Activities	1	0	1	MGMT 112	Mathematical Methods for Business II	3	0	3
	MGMT 111	Mathematical Methods for Business I	3	0	3	MGMT 131	Principles and Practices of Management	3	0	3
	ENGL 105	Writing Skills	3	0	3	PSYC 101	Introduction to Psychology	2	0	2
	INSY 119	Business Information Processing and Applications	3	1	4	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2	0	2
	MKTG 115	Principles of Marketing	3	0	3	HLED 110	Health Principles	1	0	1
	OFTE 120	Keyboarding	0	0	0	RELH 155	Adventist Heritage	2	0	2
						MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2
	Total		17	1	18	Total		20	0	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELB 220	Life and Teachings of Jesus	2	0	2	MGMT 256	Organization Theory	3	0	3
	MGMT 231	Human Resource Management	3	0	3	RELT 255	Introduction to Christian Ethics	2	0	2
	ECON 210	Principles of Microeconomics	3	0	3	HIST119/ HIST111	Issues in Development Studies/ Concepts of World Civilization	2	0	2
	MGMT 151	Business Law I	3	0	3	ECON 211	Principles of Macroeconomics	3	0	3
	MGMT 220	Business Statistics I	3	0	3	MGMT 152	Business Law II	3	0	3
	BIOL 105	Human Biology	2	0	2	FNCE 287	Principles of Finance	3	0	3
		Vocational Skills	1	0	1	MGMT 221	Business Statistics II	3	0	3
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2					
	Total		19	0	19	Total		19	0	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	INSY 281	System Analysis and Design	3	0	3	ECON 315	Intermediate Macroeconomics	3	0	3
	ECON 310	Intermediate Microeconomics	3	0	3	MGMT 494	Business Research Methods	3	0	3
	OFAD 306	Business Communication	3	0	3	ECON 329	Money, Banking and Financial Markets	3	0	3
	OFAD 212	Office Management Organization Procedures	3	0	3	MGMT 358	Risk Management	3	0	3
	MGMT 335	Organization Behavior	3	0	3	INSY 305	Management Information Systems	3	0	3
	RELT 207	Christian Beliefs	3	0	3	MKTG 380	Quantitative Techniques for Business Decision	3	0	3
	Total		18	0	18	Total		18	0	18
Inter-Semester					MGMT 460	Corporate Internship in Management	3	0	3	
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	FNCE 470	Financial Management	3	0	3	MGMT 477	Business Ethics	3	0	3
	MGMT 378	Entrepreneurship	3	0	3	MGMT 475	Productions and Operations Management	3	0	3
	MGMT 457	Strategic Management	3	0	3	MGMT 482	Project Management	3	0	3
	MGMT 495	Management Research Project	3	0	3	MGMT 468	International Management	3	0	3
	MGMT 440	Change Management	3	0	3	MKTG 484	Distribution, Logistics and Pricing Mgmt.	3	0	3
Total		15	0	15	Total		15	0	15	

Bachelor of BUSINESS ADMINISTRATION IN MARKETING

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ACCT 111	Fundamentals of Accounting I	4	0	4	ACCT 112	Fundamentals of Accounting II	4	0	4	
	PEAC 107	Physical and Recreational Activities	1	0	1	MGMT 131	Principles and Practices of Management	3	0	3	
	MGMT 111	Mathematical Methods for Business I	3	0	3	PSYC 101	Introduction to Psychology	2	0	2	
	ENGL 105	Writing Skills	3	0	3	MGMT 112	Mathematical Methods for Business II	3	0	3	
	INSY 119	Business Information Processing and Applications	3	1	4	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2	0	2	
	MKTG 115	Principles of Marketing	3	0	3	HLED 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0	RELH 155	Adventist Heritage	2	0	2	
						BIOL 105	Human Biology	2	0	2	
						MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	
Total			19	1	20	Total			20	0	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELB 220	Life and Teachings of Jesus	2	0	2	MGMT 221	Business Statistics II	3	0	3	
	ECON 210	Principles of Microeconomics	3	0	3	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	
	MGMT 231	Human Resource Management	3	0	3	ECON 211	Principles of Macroeconomics	3	0	3	
	MGMT 220	Business Statistics I	3	0	3	MGMT 152	Business Law II	3	0	3	
	MGMT 151	Business Law I	3	0	3	FNCE 287	Principles of Finance	3	0	3	
	BIOL 105	Human Biology	2	0	2	MKTG 226	Consumer Behavior	3	0	3	
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
		Vocational Skills	1	0	1						
Total			19	0	19	Total			19	0	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ECON 310	Intermediate Microeconomics	3	0	3	ECON 315	Intermediate Macroeconomics	3	0	3	
	OFAD 306	Business Communication	3	0	3	MGMT 494	Business Research Methods	3	0	3	
	MKTG 337	Principles and Practices of Retailing and Wholesaling	3	0	3	ECON 329	Money, Banking and Financial Markets	3	0	3	
	MKTG 341	Customer Care and Relationship Management	3	0	3	INSY 305	Management Information Systems	3	0	3	
	MKTG 355	Global Marketing Strategies	3	0	3	MKTG 330	Services Marketing	3	0	3	
	RELT 207	Christian Beliefs	3	0	3	MKTG 380	Quantitative Techniques for Business Decision	3	0	3	
	Total			18	0	18	Total			18	0
Inter-Semester					MKTG 460	Corporate Internship in Management	3	0	3		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	FNCE 470	Financial Management	3	0	3	MGMT 477	Business Ethics	3	0	3	
	MGMT 378	Entrepreneurship	3	0	3	MKTG 448	Advertising and Promotions	3	0	3	
	MKTG 431	Marketing Planning and Strategies	3	0	3	MKTG 475	Industrial Marketing	3	0	3	
	MKTG 495	Marketing Research Project	3	0	3	MKTG 478	Digital Marketing Strategies & E-Commerce	3	0	3	
	MKTG 466	Sales Management	3	0	3	MKTG 484	Distribution, Logistics, and Pricing Management	3	0	3	
	Total			15	0	15	Total			15	0

Bachelor of BUSINESS ADMINISTRATION IN OFFICE ADMINISTRATION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ACCT 111	Fundamentals of Accounting I	4	0	4	ACCT 112	Fundamentals of Accounting II	4	0	4	
	MGMT 111	Mathematical Methods for Business I	3	0	3	MGMT 131	Principles and Practices of Management	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	PSYC 101	Introduction to Psychology	2	0	2	
	ENGL 105	Writing Skills	3	0	3	MGMT 112	Mathematical Methods for Business II	3	0	3	
	OFTE 120	Keyboarding	0	0	0	FREN 102	Beginning French I	2	0	2	
	INSY 119	Business Information Processing and Applications	3	1	4	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	
	MKTG 115	Principles of Marketing	3	0	3	HLED 110	Health Principles	1	0	1	
						RELH 155	Adventist Heritage	2	0	2	
Total			17	1	18	Total			20	0	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELB 220	Life and Teachings of Jesus	2	0	2	OFAD 283	Typing I	3	0	3	
	MGMT 231	Human Resource Management	3	0	3	RELT 255	Introduction to Christian Ethics	3	0	3	
	ECON 210	Principles of Microeconomics	3	0	3	MGMT 152	Business Law II	3	0	3	
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	FNCE 287	Principles of Finance	3	0	3	
	MGMT 151	Business Law I	3	0	3	ECON 211	Principles of Macroeconomics	3	0	3	
	BIOL 105	Human Biology	2	0	2	MGMT 221	Business Statistics II	3	0	3	
	MGMT 220	Business Statistics I	3	0	3	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	
		Vocational Skills	1	0	1						
Total			19	0	19	Total			20	0	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	OFAD 284	Typing II	3	0	3	ECON 315	Intermediate Macroeconomics	3	0	3	
	ECON 310	Intermediate Microeconomics	3	0	3	MGMT 494	Business Research Methods	3	0	2	
	OFAD 306	Business Communication	3	0	3	OFAD 304	Shorthand I	3	0	3	
	INSY 211	Database Management Systems	3	0	3	INSY 305	Management Information Systems	3	0	3	
	OFAD 212	Office Management Organization Procedures	3	0	3	MKTG 380	Quantitative Techniques for Business Decision	3	0	3	
	RELT 207	Christian Beliefs	3	0	3	ECON 329	Money, Banking and Financial Markets	3	0	3	
	Total			18	0	18	Total			18	0
Inter-Semester					OFAD 460	Corporate Internship in Office Administration	3	0	3		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	OFAD 314	Records Management	3	0	3	OFAD 457	Personality Development	3	0	3	
	MGMT 378	Entrepreneurship	3	0	3	OFAD 485	Legal and Medical Office Procedures	4	0	4	
	OFAD 305	Shorthand II	3	0	3	OFAD 476	Front Office and Secretarial Bureau Management	3	0	3	
	FREN 103	Beginning French I	2	0	2	MGMT 477	Business Ethics	3	0	3	
	OFAD 495	Office Administration Research Project	3	0	3	OFAD 457	Personality Development	3	0	3	
	Total			14	0	14	Total			16	0

COURSE DESCRIPTIONS

ECON 201 Introduction to Principles of Economics **3 Credits**

This course covers some typical issues that are studied in both Microeconomics and Macroeconomics to demonstrate that economics is a structured way of thinking and looking at the world from an economic standpoint. The course covers the following general areas in economics: scope of economics and nature of economic systems, the role of government in market economy; Choice in a world of scarcity; demand, supply and equilibrium analysis; Production, costs and Industry; markets and market structures; macroeconomic perspective; unemployment; inflation; money and Banking; international trade and exchange rates and Demand management policies.

ECON 210 Principles of Microeconomics **3 Credits**

This course introduces students with the basic principles of microeconomic theory and their applications in decision-making for the economy, household, and firm thereby laying a foundation for more advanced diversified courses in economics and business. The content of the course includes: scope of economics and nature of economic systems; scarcity and choice; demand, supply and determination of market price; equilibrium analysis; price elasticity of demand; elastic and inelastic demand; utility theory and consumer equilibrium; theory of the firm, theory of production, costs and supply of commodities; markets and market structures; perfect competition, monopoly, duopoly, monopsony, general equilibrium analysis, market failure, and government regulations.

ECON 211 Principles of Macroeconomics **3 Credits**

This course introduces students to the basic principles, goals and models of Macroeconomics and how they have influenced macroeconomic thinking and policy over time to the present. Its content covers basic concepts and scope of macroeconomic analysis, macroeconomic goals and measurement, National income concepts and measurement, circular flow of income model, aggregate demand and aggregate supply in the classical model of economic activity: The Keynesian model of income determination. Introduction to the theories of consumption and investment, recessions, inflation and unemployment, taxation and fiscal policy, Money supply and monetary policy, international trade and exchange rates; economic growth and development.

ECON 221 Mathematical Methods for Economists I **3 Credits**

The purpose of this course is to equip students with the basic knowledge in mathematical economics so as to be able to handle economic literature that is increasingly containing mathematical models. its content covers basic principles of scalar algebra, linear and quadratic equations and inequalities, univariate functions and their economic applications, univariate nonlinear functions, experimental and logarithmic functions and mathematics of finance, the derivative and differentiation of univariate functions, bivariate and multivariate functions and comparative static analysis, matrix algebra, free and constraint optimization.

ECON 222 Mathematical Methods for Economists II **3 Credits**

The purpose of this course is to broaden the students understanding of mathematical economics for analyzing theoretical and applied economic issues involving mathematical literature. Its content covers dynamic analysis, integration, linear first-order differential equations, linear and first-

order difference equations, further topics in linear algebra, complex numbers and circular functions, non-linear first-order differential equations, second-order difference equations, non-linear programming and Kuhn-Tucker Conditions. *Prerequisite: ECON 221.*

ECON 310 Intermediate Microeconomics **3 Credits**

This course expands the students understanding and analysis of the microeconomic principles covered in the introductory course with the application of mathematical tools like calculus in analyzing business conditions and policies. Its content covers: Price Theory and its applications; the concept of elasticity as a measure of responsiveness and its application, income, price, and cross elasticities, equilibrium and disequilibrium models in microeconomic theory, indifference curve analysis and consumer behavior, the mathematics of production, stages of production, returns to scale; theory of market structure, perfect competition, monopoly and monopolistic competition, oligopoly, factor markets, general equilibrium of comparative markets, general equilibrium, Pareto optimality, introduction to welfare economics. *Prerequisites: ECON 210 and MGMT 112.*

ECON 315 Intermediate Macroeconomics **3 Credits**

This course expands the students' understanding and analysis of the theory and models of the behavior of aggregate economic activity and the impact of various policies on economic activity. Its content covers: overview of national income accounting and basic macroeconomic identities, basic macroeconomic models of income determination; the classical and monetarist model; Keynesian model, consumption function and aggregate demand equilibrium; the basic IS-LM model of income determination, fiscal and monetary policies in the extended model; international linkages in the extended model, trade, balance of payments, exchange rates and the food policies, and food security in less developed economies. *Prerequisite: ECON 211.*

ECON 326 International Economics **3 Credits**

The purpose of this course is to introduce students to the theory and policy of international trade and policy and impacts on development process. Its content covers the definitions and scope of international economics, international trade theory including the Ricardian model of labor productivity and comparative advantage, immobile factor model and international trade, the Hecksher-Ohlin model, one factor and two-factor economy models and trade between two factor economies, economies of scale and international trade, international factor movements, international trade policy, instruments of trade policy, tariffs and subsidies, exchange rates and foreign exchange market, interest rates and exchanges in international transactions, foreign exchange interrelations, international trade agreements and development countries debt balance of payment problems. *Prerequisites: ECON 315.*

ECON 329 Money, Banking and Financial Markets **3 Credits**

This course provides students with an overview of the financial system of a modern economy, role of money, financial markets and financial institutions with particular emphasis on banks. Its content covers: overview of an economy's financial system, definitions, functions, qualities, measurement and evolution of money and payment system; financial markets, types and functions, financial instruments, nature and structure of interest rates, term and risk structure of interest rates, commercial banks and their operations, information asymmetries and information costs, problem of adverse selection and moral hazard, fundamental problem of financial intermediation, bank risks, financial intermediary management, risk management in

banks, asset-liability management model, regulation of banks and financial sector, central banking, its functions, monetary policy formulation, goals and tools. *Prerequisites: ECON 211.*

ECON 341 Economics of Money and Banking 3 Credits

This course provides a comprehensive understanding of the role of money, banking, and financial markets within the broader framework of microeconomic and macroeconomic analysis. It examines the nature and functions of money, the structure and regulation of financial institutions, and the behavior of financial markets in resource allocation and economic growth. From a microeconomic perspective, the course explores how households, firms, and banks make decisions under conditions of risk, uncertainty, and incentives, emphasizing issues such as asymmetric information, loan screening, credit rationing, and portfolio choices. From a macroeconomic perspective, it analyzes the interaction between monetary policy, inflation, unemployment, interest rates, and output, focusing on how central banks influence money supply and credit to stabilize economies. Special attention is given to the linkages between financial markets and the real economy, including how shocks in the financial system transmit to business cycles, trade, and investment. Students will gain analytical and applied insights into the workings of Kenya's and global financial systems, with emphasis on policy debates around financial stability, digital banking, inclusion, and the role of monetary authorities in sustaining economic development.

ECON 410 Introduction to Econometrics 3 Credits

This course provides an introduction to the fundamental concepts and techniques of econometrics, which is the application of statistical methods to economic data for the purpose of testing hypotheses and forecasting future trends. Students will learn how to model economic relationships using regression analysis and other statistical tools, interpret empirical results, and make data-driven decisions. The topics covered include; Introduction to Econometrics, Correlation Theory, Simple Linear Regression, Multiple Regression Analysis, Model Diagnostics, Hypothesis Testing and Inference, Time Series Analysis and Panel Data Analysis. *Prerequisite: ECON 222.*

ECON 420 Public Finance 3 Credits

This course introduces students to the general principles underlying the role of the government in the provision of social or public goods. This course discusses the functions of public finance in Kenya fiscal institutions, the theory of private and public goods, fiscal expenditures and growth over time, public expenditure valuation methods including cost-benefit analysis, the structure of government revenue, taxation and tax system in Kenya, principles of taxation, types of taxes, merits and demerits, tax incidence and tax burden, the economics of public debt, government budget and budget process. *Prerequisite: ECON 315.*

ECON 465 Economic Development 3 Credits

The purpose of this course is to introduce students to the process and dynamic of economic development with reference to development. The content of the course discusses and analyzes the definition of economic development, the goals of economic development, the theorize of economic development and growth, economic growth models, structural change models, international dependence models, problems and policies of economic development, poverty and inequality, population growth, urbanization and rural-urban migration, human capital, agricultural transformation, the environment and sustainable development, development planning and policies. *Prerequisites: ECON 315.*

ECON 495 Independent Study in Economics 3 Credits

The purpose of this course is to demonstrate economic investigation conducted on an individual basis. It is an original piece of work on any topic of interest on any economic issue approved and supervised by the instructor concerned. The findings will be presented in a report. Seminar presentations are required. Limited only to students in Economics. *Prerequisite: Senior Standing.*

MGMT 103 Basic Management and Entrepreneurial Skills 3 Credits

This course gives students an understanding of entrepreneurship and the necessary skills needed to become an entrepreneur. Course content includes basic concepts of entrepreneurship and entrepreneur; the entrepreneur and society; the government and entrepreneurship; characteristics, qualities, and traits of an entrepreneur; business ideas and opportunities: sources for business ideas, enabling environmental public policies; formation of business, forms of business organizations; registration of business, trading licenses and other contracts, sources of finance for small entrepreneurs, decision making and risk taking .management of small scale business, sources of finance for small entrepreneurs: internal sources and external sources of financing, and taxation.

MGMT 111 Mathematical Methods for Business I 3 Credits

The purpose of this course is to introduce students with the basic knowledge of mathematical methods for Business I and their applications in decision-making in business, thereby laying foundation for more advanced courses in business and economics. The content of the course includes: need for mathematics in business, set theory, fundamentals techniques of Algebra, Linear Functions and its economic applications, Non-Linear Functions, Differential calculus and economic applications, Integral calculus and Mathematics of finance and its applications in business and economics.

MGMT 112 Mathematical Methods for Business II 3 Credits

The purpose of this course is to introduce students with the knowledge of mathematical methods for Business II and their applications in decision-making for the economy, thereby laying foundation for more advanced courses in economics and business. The content of the course includes: equilibrium in partial and general models, multivariate functions its applications in business and economics, partial differentiation, constrained optimization problems its applications in business and economics, non-algebraic functions, matrix algebra, Input-Output analysis and its applications in business and economics. *Prerequisite: MGMT 111.*

MGMT 131 Principles and Practices of Management 3 Credits

This course acquaints students with the fundamental concepts, theories, and basic principles of effective management of organizations to meet real world work and business requirements that create a competitive advantage. Main topics of the course are definition, nature and importance of management, social and ethical responsibilities and political environment of management, managing work, motivation and leadership, communication and decision making, management functions: planning, organizing, leading and their applications to functional areas of business: human resource, marketing, finance and accounting, productions and operations. Preparing a business plan and case analysis are also integrated in the course content.

MGMT 151 Business Law I**3 Credits**

This course gives students a basic understanding of law and its importance in society and in the business world and to equip them with analytical and critical problem-solving skills in the legal business field. Topical contents of the course include the law of contract, the law of contract act, the law of partnership, Sale of Goods Act, the Law of Negotiable Instruments, and the Bills of Exchange Act, the Law of Bankruptcy, and the Bankruptcy Act. *Prerequisite: MGMT 131.*

MGMT 152 Business Law II**3 Credits**

This course acquaints students with legal knowledge relating to transactions within the business environment and to prepare them to undertake professional courses both locally and internationally in company law. Topical contents of the course include: nature and classification of companies, the formation of companies, memorandum of associations, directors, officers and shareholders, shares, capital and dividends, mergers and acquisitions, and winding up of business organizations. *Prerequisite: MGMT 151.*

MGMT 220 Business Statistics I**3 Credits**

The purpose of this course is to provide students the foundational level, fundamental theories of both descriptive and inferential statistics and how they apply to business environments, managerial decision-making and business research. Its content covers: meaning of data and statistical data, scope and role of business statistics, data collection, analysis and presentation, measures of central tendency and dispersion, probability theory, elementary probability concepts, Bayes Theorem, normal distribution, sampling and sampling distributions, point interval estimates, confidence intervals and levels, statistical inference, small and large sample tests involving different sampling distributions including t, F and chi-square distributions, simple and multiple linear regression model, and its evaluation, simple and multiple correlation and its evaluation. *Prerequisite: MGMT 112.*

MGMT 221 Business Statistics II**3 Credits**

The purpose of this course is to provide the students with the several non-parametric statistical tools widely available for application in research projects and their interpretation for business and managerial decision making. Its content covers: probability distributions, binomial distributions, Poisson distribution, multinomial distribution, exponential distribution, hypothesis testing of means, variances, and proportions and differences among each a review of simple correlation and regression theory, multiple and partial correlation theory, significance of correlation ratios, ANOVA (one-, two- or three-way classifications), MANOVA, Posthoc Multiple Comparison Tests, Tukey, Newman Keuls, Turkey/Kramer and Scheffe' method, chi-square test, and non-parametric tests; namely the sign test, Wilcoxon's signed-rank test, Wilcoxon Rank Sum test, Median Test, Mann Whitney U test, Wald Wolfowitz Runs Test, test for randomness, Kruskal-Wallis H Test, Kolmogorov Smirnov test, Friedman Fr Test, Spearman's Rho, McNemar and Cochran tests. *Prerequisite: MGMT 220.*

MGMT 231 Human Resource Management**3 Credits**

The purpose of this course is to examine the primary role of human resources management in the organization to help people and organizations effectively manage human resources. This highly interactive course focuses on job assessment and job design, HR planning and recruitment, selection and placement, training, performance and appraisal management, employee development, employee separation and retention, employee contribution with pay, employee benefits, employee motivation, collective bargaining and labor relation, managing

HR globally, leadership and cultural difference and strategically managing the HRM function. *Prerequisite: MGMT 131.*

MGMT 358 Risk Management**3 Credits**

The purpose of this course is to prepare and equip students with the knowledge, understanding and techniques of the general management of risk. Its content covers definition of risk, types of risk, sources and causes of risk, development of corporate risk policy, risk identification: risk analysis: methods of measuring risk, evaluation of likelihood of risk, risk control and reduction, risk financing, retention and transfer, evaluation of management techniques, moral hazards and adverse selection, insurance principles and requisites: underwriting insurance claims, marketing insurance; economic and social significance of insurance in Kenya. *Prerequisite: MGMT 131.*

MGMT 335 Organization Behavior**3 Credits**

This course will enable the learners to gain understanding of behavior of people in organization and how such behaviors ultimately affect performance in the organization. The course content includes the following topics: definition and importance of HBO as a field of study, history and current trends and future perspectives of HBO; organization performance and behavioral approach, individual attributes and their effect on behavior and performance, group organization factors and Influence on behavior. *Prerequisite: MGMT 256.*

MGMT 256 Organization Theory**3 Credits**

The purpose of this course is to deepen the students understanding and awareness of the essentials of managing and of the way organizations behave. Its content covers: overview of the field of management, and insights into the concept of organizational structure, history, lexicon, and practices of management as a field of study, and its present position in terms of both theory, practice, and the standing as a profession, evolution of management, classical approaches to management as well as appreciating their contributions and limitations, analysis of organizations and the management processes of planning, organizing, staffing, directing, controlling, communicating, problem-identification and decision making with emphasis on their application to different areas of management-marketing, production, operations, and financial and human resources, methods of strategic business analysis, considering; political, cultural, legal, market and socio-economic forces. *Prerequisite: MGMT 131.*

MGMT 357 Strategic Management**3 Credits**

This course is concerned with those aspects of general management that enhance the competitiveness and stability of organizations. The course content includes comprehensive overview of strategic management as well as exploring the stages of strategic management: strategic formulation, strategic implementation, and strategic evaluation. Students will also be required to do case analysis, prepare a written report as well as power-point slides. *Prerequisites: MGMT 256.*

MGMT 468 International Management**3 Credits**

The purpose of this course is to equip the student with special problems encountered by executives in the management of international business operations. The main topics covered will include subjects such as international trade, investment theories, balance of payments, exchange determination and management, international finance and trade institutions, trade documentation and payment procedures, the decision process in making investments abroad, relationships with host governments, international legal environment, organizational and operating problems of the multinational corporation, including setting strategic goals, human resource management, planning, communications, and control. *Prerequisite: MGMT 357*

MGMT 378 Entrepreneurship 3 Credits

This purpose of this course is to equip the student with understanding of the entrepreneur and society theories. Entrepreneurship and self-employment. The government and entrepreneurship. Driving forces to entrepreneurship, entrepreneurial behavior. The characteristics/qualities/traits of an entrepreneur. Business ideas and opportunities: such as sources for business ideas enabling environmental public policies. Legal aspects of business. Business formation: form of business organization. Registration of business. Trading licenses, and other contracts. Sources of finance for small entrepreneurs. Private sources, banks, financial institutions and NGOs co-operatives. Decision-making and risk taking. Decision making process, decision making techniques, types of risks of business, assessing risks in self-employment, minimizing risks, management of small-scale business; role of management consultants in small scale business management.

MGMT 379 Operations Research 3 Credits

The purpose of this course is to introduce to students the essential quantitative techniques used in business decision-making and problem-solving. It covers a wide range of topics including basic mathematical tools, mathematics of finance, descriptive statistics, probability, correlation and regression, optimization and linear programming, decision analysis, transportation and assignment models, game theory, inventory management, queuing theory, network analysis (PERT/CPM), and simulation. Emphasis is placed on practical applications rather than abstract theory, enabling students from non-business backgrounds to apply quantitative reasoning to real-world business challenges. The course further develops skills in formulating and analyzing models, interpreting results for managerial decisions, and using spreadsheets and simple software tools to support analysis and problem-solving. *Prerequisite:* MGMT 111

MGMT 440 Change Management 3 Credits

This course is designed to enable students understand the dynamic nature of the modern business environment and formulate appropriate response strategies. Topical contents of the course include: Meaning and nature of change, components and forms of change; forces of change; change process; models of change; implementing change in organization; change models and managerial decision making; organizational development of change; strategies in handling resistance to change; role of strategic leadership as change agent; Change strategies. *Prerequisites:* MGMT 131 and MGMT 335

MGMT 460 Corporate Internship in Management 3 Credits

The purpose of this course is to give students an opportunity to apply and experience what they have learned and be able to evaluate organizational practices in the actual real work setting. Its content involves directed internship in a private firm, a not-for-profit organization or government agency for practical application of the course studied. Students will be attached for three months to different organizations. They will be required to fully participate in the routine tasks and assignments of the organization. The purpose will be to enhance their understanding in the general areas of management such as principles, organizational policies and work ethics, team building, communication and organizational performance. Each student will maintain a logbook containing weekly reports of activities undertaken. A designated supervisor at the place of work will sign the logbook weekly. At the end of the attachment, each student will submit the logbook plus a detailed report of one major activity undertaken during the industrial attachment. The detailed report should detail their experience during the

attachment, linking the theory and practice. The report will be examined. *Prerequisite:* Junior Standing and above.

MGMT 475 Production and Operations Management 3 Credits

The purpose of this course is to equip the student with the understanding and the translation of the product and service requirements into goods and services, procedures, and operation organizations. The course covers, the analysis of challenges and issues faced by production/operations managers in manufacturing, merchandising, and service businesses, Process planning and control scheduling, quality management and control, plant layout, facility location, decision theories, game theory, queue analysis, production and inventory management, forecasting, Resource allocation techniques. *Prerequisite:* MGMT 221.

MGMT 477 Business Ethics 3 Credits

The purpose of this course is to equip the students with the origin of ethics; ethics in business; consequential theories-egoism; utilitarianism; situational ethics; moral issues connected with market economy; ethics in production; distribution and exchange of economic goods and services; pricing; advertising; profit motives; financial tradition monopolies; multinationals and oligopolies; competition versus trusts; morality of both individuals and groups; principles of doubt effect; the relationships and obligations of employers and employees; producer and distributor; buyer and seller; firm and industry and nation with obligations of trustfulness; justice and charity; management of firm and society and also the business community; economics of consumption: economic and fair trade laws. Privacy information and disclosure; national standards; consumerism; minorities and disadvantaged groups; protection of environment; social responsibility, social obligation, social response; business influence on governmental institutions; profit motives vs social responsibility. *Prerequisite:* MGMT 152

MGMT 482 Project Management 3 Credits

This course provides the learners with project management knowledge, skills, abilities, tools and techniques necessary in a wide range of project applications from concept development to the actual project operations. Topical content of the course include: concept of projects; project organization and the manager; the project life cycle; project identification; project proposal writing; time and resource planning, project implementation; project monitoring and information systems; project evaluation; human resource management within projects; project management software; project termination. *Prerequisite* MGMT 131, MGMT 440.

MGMT 494 Business Research Methods 3 Credits

The purpose of this course is to equip students with the necessary skills to undertake a scientific research in business. Its content covers: meaning and purpose of research, types of research, basic and applied research, quantitative and qualitative research, cross-sectional and longitudinal research; the scientific research process; identifying a research problem, stating the research problem, purpose, objectives, hypothesis/research questions, significance of the study, limitation of the study, literature review, source of information and qualities of a good literature review, methodology: research design, population and sampling methods, developing research instrument, piloting/ pretesting, data collection procedures – primary versus secondary data, plans for data analysis and interpretation; data management, data analysis: tools of qualitative and quantitative statistical analysis, interpretation, conclusions and recommendations; issues in research quality – reliability, objectivity, validity; writing the research proposal and report. *Prerequisites:* MGMT 221 and ENGL 105

MGMT 495 Management Research Project 3 Credits

The purpose of this course is to test the students' conceptualization of research problems and enable students to write a research report on a topic of his/her choice. The content involves: the research project undertaken by the student will be done under the supervision of an officially assigned faculty member who will guide the student research activities and ensure the research proposal, and report meets the required academic and ethical standards. The course will comprise two parts. The first part will comprise the writing of the research proposal and after its approval the second part will comprise the research and writing of the final report. *Prerequisite: MGMT 494*

MKTG 115 Principles of Marketing 3 Credits

The purpose of this course is to prepare the student to think strategically about marketing in today's global environment. This course is designed to provide students with an understanding of the principles of marketing. There will be a focus on the management of the marketing activities and how marketing relates to overall organizational functioning, including the management of exchange processes between business units and consumers and between firms. Topics include the marketing mix, new product development, consumer behavior, customer relationship management, strategic planning and e-commerce. Students will develop a comprehensive marketing plan and apply course concepts to real or imaginary products, Micro and macro marketing, segmentation strategies, society product, distribution, promotion, and pricing strategies.

MKTG 226 Consumer Behavior 3 Credits

The purpose of this course is to acquaint the students with the factors that influence the complex nature of consumer behavior in the market place and to equip them with skills necessary to perform consumer analysis and develop competitive marketing strategies. Topics covered in the course include the nature, importance and basic concepts of customer behavior; psychological, social, cultural and political factors influencing consumer behavior; customer attitudes, customer motivation, customer decision making process and beyond; models of consumer behavior, Cognitive and affective; researching customer behavior and consumer welfare. *Prerequisite: MKTG 115 & PSYC 101*

MKTG 337 Principles and Practices of Retailing and Wholesaling 3 Credits

The purpose of this course is to equip the students with the theories, principles and practices and strategies of the two major intermediary channels of distributions: retailing and wholesaling. Course content deals with the retail industry and its environment, retailing strategy, merchandise management, store management: layout and designs; nature and environment of wholesaling: benefits and economic functions, types and trends and strategic decisions in wholesaling. *Prerequisite: MKTG 115*

MKTG 341 Customer Care and Relationship Management 3 Credits

The purpose of this course is to provide guidelines and best practices for providing excellent customer service that will enable frontline associates and service staff in back-up and support roles to build, maintain, and increase a loyal customer base. Retailers company's business prospects are often derailed by poor customer support. Procurement, fulfillment, and post-sale support can be severely crippled by poor communication channels. Main topics for this course will include: customer care, customer satisfaction, meeting sales executives, managers and supervisors. Topics covered in this course are meaning, trends and challenges of sales management; ethical

and legal responsibilities of sales executives/managers; process and designs of sales force management: planning, organizing, training controlling, motivating and compensating compensation the sales force; process and strategies of personal selling; sales territories and accounts management, evaluation of sales performance and market analysis. *Prerequisites: MGMT 131 and MKTG 115.*

MKTG 448 Advertising and Promotions 3 Credits

The purpose of this course is to increase an understanding of the important issues in planning and evaluating marketing communication campaigns and provide the appropriate theories, models, and other tools to make better marketing communications decisions. The course provides a comprehensive overview of advertising and promotion from an integrated marketing communications (IMC) perspective. The main topics covered in this course will include the role of marketing communication in the advertising, promotion, media planning and selection, sales promotion techniques and procedures, direct marketing and product placement, packaging, and its role in advertising, planning and implementing successful advertising and campaigns, evaluation of advertising effectiveness, advertising and promotion budgeting, public relations, creative strategies, appeals, legal and ethical issues in advertising and managing advertising agencies. *Prerequisites: MKTG 226 and MGMT 152*

MKTG 330 Services Marketing 3 Credits

The purpose of this course is to acquaint the students with the unique characteristics of services and their implications in order to come up with appropriate strategies to effectively manage service organizations. The topical contents of the course include concepts, importance and trends in services marketing, nature and characteristics of services; the extended marketing mix for services marketing and management: product, pricing, place, promotion, the role of people, physical ambiance, process and appropriate set up of strategies; quality management tactics; the SERVQUAL questionnaire, relations; service failures and complaint management; ethical issues in services marketing and strategies to control ethical behavior. *Prerequisite: MKTG 115*

MKTG 355 Global Marketing 3 Credits

This course intends to acquaint the students with the concepts: practices, scope, and challenges of international marketing. Course content includes the major dimensions of the economic, social, cultural, political/legal and regulatory environment of international marketing. Other topics covered are researching international markets, global marketing mix of products, pricing, place and promotion decisions; global marketing entry strategies and the creation, implementations and management of international marketing programs. *Prerequisite: MKTG 115*

MKTG 466 Sales Management 3 Credits

This course aims to equip the students with adequate expertise of emerging practical strategies and tactics of sales management that can help an organization achieve its marketing goals and to prepare them to become successful sales executives, managers and supervisors. Topics covered in this course are meaning, trends and challenges of sales management; ethical and legal responsibilities of sales executives/managers; process and designs of sales force management: planning, organizing, training controlling, motivating and compensating compensation the sales force; process and strategies of personal selling; sales territories and accounts management, evaluation of sales performance. It will also include ethical and legal responsibilities of sales managers; ethics and the law, ethical situations facing salespeople, professional codes

of ethics (CIM and AMA) and market analysis. *Prerequisites:* MGMT 131 and MKTG 115.

MKTG 431 Marketing Planning and Strategies 3 Credits

The purpose of this course is to provide students with solid experience in creating marketing strategies for the future success of a business. The main focus is on discovering and developing a set of unique competencies for a firm that, through strategic differentiation, leads to sustainable competitive advantage in the marketplace. Areas covered in the course will include strategies such as tactical retreat, flanking, guerilla tactics, cyber strategies, strategic implementations and evaluation, relational marketing, positioning, segmentation strategies, pricing strategies, promotional, distributional, and product strategies. *Prerequisite:* MKTG 330.

MKTG 475 Industrial Marketing 3 Credits

The purpose of this course is to enable the students to understand the concepts and unique nature of organizational customers and business markets. Course content covers meaning and scope of industrial marketing, the nature of industrial markets compared with consumer markets, organizational purchase process, industrial goods and customers; industrial product planning and packaging practices, pricing decision, promotion /communication decision, distribution and logistics strategies; and industrial market segmentations. Other topics include current trends and issues that domestically affect the industrial markets. *Prerequisite:* MKTG 431.

MKTG 478 Digital Marketing Strategies and E-Commerce 3 Credits

The E-commerce and Digital Marketing course provide students with a comprehensive understanding of the fundamental principles, strategies, practices and techniques essential for success in the dynamic digital business landscape. This course explores the intersection of technology, marketing, and commerce, focusing on how businesses can leverage digital platforms to reach, engage, convert and retain customers online. Through a blend of the theoretical concepts, practical applications, case studies, and hands-on exercises, students will gain insights into the latest trends, tools, and best practices in e-commerce and digital marketing. Topics covered include e-commerce business models, website development, online payment systems, data - driven marketing, digital advertising, search engine optimization (SEO), social media marketing, content strategy, email marketing, analytics, and conversion optimization. The course emphasizes experiential learning, encouraging students to develop real-world skills and strategies applicable to various industry sectors and business sizes. Students will also have the opportunity to work on individual and group projects, creating digital marketing campaigns, e-commerce websites, and comprehensive digital marketing plans. *Prerequisite:* MKTG 431.

MKTG 380 Quantitative Techniques for Business Decisions 3 Credits

The purpose of this course is to provide students with the basic understanding, analytical and computational ability of the various techniques and models used in business and managerial decision-making. Its content cover decision analysis, decision making under uncertainty, linear programming, graphical and simplex method, algorithm, sensitivity analysis, transportation models and networks, forecasting, time series analysis, trend analysis, seasonal analysis and cyclical variation, inventory models, economic order quantity and fixed order, fixed order quantity calculation, lead time and inventory control models, queuing, models, project planning, scheduling and networks

analysis, with PERT/CPM, simulation techniques. *Prerequisites:* MGMT 221.

MKTG 460 Corporate Internship in Marketing 3 Credits

The purpose of this course is to give students an opportunity to apply and experience what they have learned and be able to evaluate organizational practices in the actual real work setting. Its content involves directed internship in a private firm, a not-for-profit organization or government agency for practical application of the course studied. Students will be attached for three months to different organizations. They will be required to fully participate in the routine tasks and assignments of the organization. The purpose will be to enhance their understanding in the general areas of management such as principles, organizational policies and work ethics, team building, communication and organizational performance. Each student will maintain a logbook containing weekly reports of activities undertaken. A designated supervisor at the place of work will sign the logbook weekly. At the end of the attachment, each student will submit the logbook plus a detailed report of one major activity undertaken during the industrial attachment. The detailed report should detail their experience during the attachment, linking the theory and practice. The report will be examined. *Prerequisite:* Junior Standing and above.

MKTG 484 Distribution, Logistics and Pricing Management 3 Credits

The purpose of this course is to provide students with an overview of the challenges in distribution, logistics and pricing management of the productions and service firms. Areas covered will include supply chain choice and management, channels of distribution, their choice, motivation, compensation and management, physical distribution, transportation models, packaging, storing and warehousing, materials management, purchases and location choice, customer order processing, documentation and carrier liabilities, pricing strategies and policies. *Prerequisite:* MGMT 221.

MKTG 495 Marketing Research Project 3 Credits

The purpose of this course is to test the student's conceptualization of marketing research problems and enable them to write a research report on a marketing topic of his/her choice. Its content involves: a research project undertaken by the student that will be done under the supervision of an officially assigned faculty member who will guide the student's research activities and ensure the research proposal and report meets the required academic and ethical standards. The course will comprise two parts. The first part will comprise the writing of the research proposal and after its approval the second part will comprise the research and writing of the final report. *Prerequisite:* MGMT 494.

OFAD 212 Office Management Organization and Procedures 3 Credits

The purpose of this course is to provide a comprehensive overview of the administration of the modern office in the public and private sector through application of the management principles to office operations. Course content includes: the office, definition, purpose/function, office staff and clerical activities; emerging management trends and changes in the workplace, office environment, office organization and hierarchy, departmentalization, filing and retention of records, communication in the office, human relations in the office, human resource management, organization and methods, handling of mails and correspondences, meeting and event planning. The course will also introduce current office procedures necessary to perform administrative support functions as well as an opportunity to develop

learning strategies that will prepare the student to confront academic, personal, and career challenges. The course content includes: office organization concept, elements or features of organization, importance of organization, objectives of business organizations, principles of organization, forms of organization, choosing an organization structure, forms of organizational chart, authority and responsibility, human relations, human behavior in the workplace, social and organizational dynamics and how they impact on the individuals, the organization and the office, issues of technology and its impact on secretarial procedures and proficiency, effective communication at all levels of the organization using e-mail, internet and intranet, extraction analysis and presentation of materials for managerial decisions, and issues of integrity and dignity of a secretary. *Prerequisite: MGMT 131.*

OFAD 283 Typing I

3 Credits

The purpose of this course is to introduce basic skills in keyboard operation to improve efficiency in manuscript production, centering and problem solving. The content covers mastering the alpha numeric keyboard, typing of basic documents such as tables, straight copies, statistical copies and manuscripts of varying complexities, mastering of typing skills in correspondences and mailable materials, proficiency in straight-copy of various complexities. A course is to further deepen the students skills in key-stroking continuity and control, improve basic language skills, formatting business communications such as tables, resumes, and reports, type fast and accurately to reach 65 words per minute, improve ability to think and compose at the keyboard, work faithfully, honestly and industriously, format and design frequently used business forms and prepare administrative and employment documents as well as using judgment to take responsibility for the quality of documents produced. A typing skill of 65 words per minute with 5% error allowance in 5 minutes is expected.

OFAD 284 Typing II

3 Credits

The purpose of this course is to improving communication skills by improving capitalization skills, rules, terminal punctuations, spelling skills, and number usage rules; formatting basic business communications, format unbound reports, format tabulated documents, inventory skills, long reports and complex tables. Build on keyboarding, communication and document formatting skills already developed as the complexity of tables and the length of reports the student prepares increases significantly in this level. Content includes: review of basic business communications, designing frequently used business forms and prepare administrative and employment documents, minutes, news release, itinerary, application letters, curriculum vitae, resumes, legal, medical and government documents. The final section is devoted to measuring the basic and document production skills already developed; professional image and employment opportunities. Emphasis is placed on working efficiently with script, rough draft, and statistical copy as well as on abstracting information from computer printouts. The student is required to use judgment and to take responsibility for the quality of the documents produced. These skills are invaluable and can be applied to any office situation. The minimum speed requirement is 75 words per minute with 2% error in 5 minutes. *Prerequisite: OFAD 283.*

OFAD 304 Shorthand I

3 Credits

The purpose of this course is to provide students with the fundamental principles and theories of Pitman shorthand, master the consonants, vowels, positioning and phrasing techniques, drilling standard outlines, and comfortably take shorthand dictation and transcription at 50 – 70 words per minute with a minimum of 5% error in 10 minutes. Course

content includes: drilling consonants, positioning, vowels, joining consonants, short-forms, phrases and outline derivatives, diphthongs, tri-phones, S circle, Ses circle, Sway circle, Stee, and Str loops. The course also includes reading pitman shorthand outlines and developing skills in drilling standard outlines so as to increase speed and accuracy with correct position of outlines as well as vowel indication. Also included are the application of the rules of grammar, punctuation, spelling, syllabication, and the development of an adequate business vocabulary. It improves student understanding of advanced theories of Pitman shorthand both in reading and writing, drill neat and accurate outlines, read both printed and handwritten outlines and take dictation and transcription at the rate of 80 – 100 words per minute with a minimum error of 3% in 5 minutes. *Prerequisite: OFAD 284.*

OFAD 305 Shorthand II

3 Credits

The purpose of this course is to the course content includes: halving, double consonants, hooks, compound consonants, double principle in halving, prefixes and suffixes, diaphones, figures, compound words and intersections. The course also involves reading and drilling complex shorthand outlines with increased speed and accuracy; yet maintaining correct positioning, phrasing, rules of grammar, punctuation, spelling, syllabication, and advanced business vocabulary. It also increases student's ability to construct legible shorthand outlines under the stress of dictation, increasing the possibility to pass entrance tests through combining shorthand, typing, and knowledge of the mechanics of English into production of specialized documents in legal and medical correspondences. Dictations are taken at the rate of 100 – 120 words per minutes with 95% accuracy. Emphasis is on speed in constructing own shorthand outlines following rules and principles of shorthand so as to drill and transcribe complex letters, memos, and reports accurately. The course also covers reading shorthand notes rapidly and accurately, proofreading to recognize errors in grammar, punctuation, spelling, and represent figures and symbols accurately. *Prerequisite: OFAD 304.*

OFAD 306 Business Communication

3 Credits

The purpose of this course is to help the student develop the proficiency needed to succeed in today's technologically enhanced workplace by focusing on the development of professional oral and written communication skills. Having good oral communication and writing skills is essential in today's workplace. With the arrival of videoconferencing, large-scale meetings are possible with increased frequency. Main content of the course covers memo, letter, report, multicultural and global communication; technological, legal and ethical considerations; interpersonal communication and team work; job search and resume; employment communication and job interview; social messages; presentation skills; participation in and chairing of meetings. *Prerequisite: ENGL 105.*

OFAD 314 Records Management

3 Credits

The purpose of this course is to provide a practical, operations-based examination of records management policies and procedures that are useful in managing vital records for primary business operations. The areas covered will include records management, history, definition, scope, and role in different institutions; policies and procedures; records inventories, retention schedules and indexes: practical controls for modern records in all institutions; filing methods for active, semi-active, and in-active records systems; automated records systems: electronic forms, computer assisted retrieval, and optical disk; purchasing procedures for records managers: getting the most from vendors, consultants, and contracts; records conversion, archives and the internet; general security and destruction;

vital records and disaster; management of a small records center, working toward a digital future: building systems for current use and future adaptation; networks and towards a paperless office, the rise of the information specialist and the new roles for the records manager. *Prerequisite: INSY119.*

OFAD 315 Office Administration, Ethics and Public Relations 3 Credits

The purpose of this course is to provide students with knowledge and skills in areas of business administration, ethics and public relations so as to understand office processes needed in different workplaces such as general business offices, legal, or medical offices. The areas covered will include the office concept, its purpose and functions, differentiating between administration and management, aspect of management process, office skills, procedures and responsibilities of an executive secretary/office administrator, study in organization dynamics, levels in the organizational hierarchy and relationships, departmentalization, office environment, organization and methods (O and M); business ethics definition, business environment, factors affecting business ethics, applying ethics in different fields, consequences of unethical behavior – case study for illustration 'The Enron scandal', setting codes of business ethics, examples of codes of ethics, codes for corporations and non-profit organizations; History of public relations, definition of Public relations, the publics and opinion leaders, the images in public relations, differences between public relations, advertising, and marketing, PR and propaganda, types of PR departments, PR and press relations, the importance of human relations, work and motivational theories, types of groups, work frustrations, stress, causes and remedy, and managing conflicts. *Prerequisites: MKTG 115 and OFAD 314.*

OFAD 457 Personality Development 3 Credits

The purpose of this course is to learn in-depth information about personality dynamics, and then it will guide the student in comparing themselves to the ideal so that they will become more aware of their personality handicaps. Activities are also meant to deepen their self – realization as they reflect on their existing value system, their life philosophy, paradigms and perceptions and discover how all these influence their present behavior, success and happiness. The main topics covered in this course will include personality theories, personality development, self-image, professionalism and social etiquette, responsibilities of personal/executive secretary, grooming, attire, development of job ability, communication, the dynamics of communication, intrapersonal, inter-ethnic, inter-cultural and cross gender communication and role modeling with Christ as the master model. *Prerequisite: OFAD 315.*

OFAD 460 Corporate Internship in Office Administration 3 Credits

The purpose of this course is to give students an opportunity to apply and experience what they have learned and be able to evaluate organizational practices in the actual real work setting. Its content involves directed internship in a private firm, a not-for-profit organization or government agency for practical application of the course studied. Students will be attached for three months to different organizations. They will be required to fully participate in the routine tasks and assignments of the organization. The purpose will be to enhance their understanding in the general areas of management such as principles, organizational policies and work ethics, team building, communication and organizational performance. Each student will maintain a logbook containing weekly reports of activities undertaken. A designated supervisor at the place of work will sign the logbook weekly. At the end of the attachment,

each student will submit the logbook plus a detailed report of one major activity undertaken during the industrial attachment. The detailed report should detail their experience during the attachment, linking the theory and practice. The report will be examined. *Prerequisite: Junior Standing and above.*

OFAD 476 Front Office and Secretarial Bureau Management 3 Credits

The purpose of this course is to acquaint the student to all facets of front desk/front office lodging management. The student will have the opportunity to study interlinked front office operations for a variety of hospitality settings. A student will learn how lodging operations rely on connectivity and interdependence provided by the front desk/front office. The main content of the course covers the areas such as lodging industry, hotel organization, front office operations, communication and guest services, security and the lodging industry, check-out and account settlement, the role of housekeeping in hospitality operations, the concepts and types of a secretarial bureau, organization and provision of secretarial services, financing, accounting, and auditing of a secretarial bureau, customer relations and retention, how to register a bureau and preparation of business plans and projects for funding purposes. *Prerequisite: OFAD 315 and OFAD 457.*

OFAD 485 Legal and Medical Office Procedures 4 Credits

The purpose of this course is to equip the student to the functions and duties of the legal and medical office procedure. This course is designed to prepare students for employment either in a medical office or in a legal office. A student will understand what a medical and legal office is like, how it functions, and its personnel for an intelligent performance of secretarial duties. The main topics covered will include professionalism in the legal office, mastery legal jargon and terminologies, mastery of legal office procedures, legal etiquette, research, and report writing. The medical office procedure will include mastery of specialized skills for the medical office such as medical terminologies transcription in shorthand phrases and vocabulary, confidentiality of patient records, integrity, personal ethics, medical professional ethics and exposure to medical institutions. The learner is expected to spend at least one week each in the legal office, courts and law libraries within the scheduled semester as part of the requirement. *Prerequisites: OFAD 315 and MGMT 151.*

OFAD 495 Office Administration Research Project 3 Credits

The purpose of this course is to test the student's conceptualization of research problems and enable students to write a research report on a topic of his/her choice. The content involves: the research project undertaken by the student will be done under the supervision of an officially assigned faculty member who will guide the student research activities and ensure the research proposal and report meets the required academic and ethical standards. The course will comprise two parts. The first part will comprise the writing of the research proposal and its approval. The second part will entail data collection, analysis, and writing of the final report. *Prerequisite: MGMT 494.*

OFT 120 Keyboarding 0 Credit

The purpose of this course is to develop skills in operating and manipulating the keyboard to produce mailable work. This includes mastery of the alpha-numeric keyboard, identifying and mastering the home keys, key reach techniques and striking skills, gain skill in copying from printed matter, statistical, script and rough draft copy, introduction to manuscript typing, basic types of letter styles, envelopes, reports, centering tables/columns and memos. Emphasis is on speed, proofreading, neatness, accuracy and attractiveness. Speed objective: 25 – 40 a minute taken in 10 minutes.



SCHOOL OF EDUCATION, HUMANITIES & SOCIAL SCIENCES

DEPARTMENT OF EDUCATION
DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF THEOLOGY AND RELIGIOUS STUDIES



School of Education, Humanities, and Social Sciences

DEAN – Odek, R., PhD.

Email: deanehss@ueab.ac.ke

PHILOSOPHY

The School of Education, Humanities and Social Sciences holds that God is the Creator and Sustainer of the universe and life and is the source of true knowledge. The entrance of sin caused man's alienation from God, therefore, the educative process seeks to restore the relationship of men and women with God by preparing pastors, teachers, educational administrators, curriculum experts, psychologists, guidance counselors, social scientists, experts in development studies, musicians, linguists, and public servants who fully understand God's will for humanity and endeavor to treat their learners, colleagues, leaders and subordinates with dignity, love, humility and care by emulating the example of Jesus Christ, the Master Teacher. This approach leads learners into self-actualization and to discover and understand the truth through positive critical thinking.

MISSION

The Mission of the School of Education, Humanities and Social Sciences is to provide and advance a wholistic quality Christian education, which develops men and women to be earnest seekers of truth and equips them with appropriate knowledge, skills and attitudes in education, humanities and social sciences for service to God and humanity.

VISION

The vision of the School of Education, Humanities and Social Sciences is to be a leading centre of excellence in higher education and research, producing world-class pastors, teachers, educational administrators, curriculum experts, psychologists, guidance counsellors, social scientists, experts in development studies, musicians, linguists, and public servants equipped with moral virtues.

EXPECTED LEARNING OUTCOMES

The academic programs in the School of Education, Humanities, and Social Sciences are specifically designated to accomplish the following objectives:

1. To provide students with counseling skills needed in the contemporary society.
2. To train students to teach in primary, secondary, and tertiary institutions of learning.
3. To uphold sound professional ethics for those training to be pastors, counselors, teachers, curriculum planners, musicians, linguists, historians, educational administrators, public servants.
4. To prepare students to lead educational institutions and organizations.
5. To provide experience to students how to develop documents on curriculum at school, district, county, national and regional levels.
6. To allow students to carry out and supervise research work with intentions to create new and relevant knowledge.
7. To acquaint students with the various fields within the humanities and social sciences as well as their relationship to other disciplines.
8. To prepare and enable students to appreciate the value and quintessence of humanistic disciplines as they relate to humankind and its problems.
9. To prepare professionals, including pastors, counselors, researchers and teachers, etc. who will, in turn contribute to the development and application of knowledge in nation building during and after their studies.
10. To meet academic, scholarly and professional needs of students in all aspects of their pursuits.
11. To help students to live their own lives as useful members of their community by inculcating moral leadership values.
12. To develop academic, scholarly and professional discourses and public agenda for quality education and academic excellence.
13. To prepare students for postgraduate studies and advanced research in humanistic disciplines.
14. To prepare students to teach courses in religion, humanities and social sciences, etc. at all levels in secondary schools and teacher training colleges.
15. To provide broad based forum for free exchange of ideas – forum which embodies professional commitment to a set of values which include boldness of vision, willingness to initiate, capacity to lead and inspire desire to protect or dream of a better future.
16. To provide quality higher education and academic excellence within the context of the philosophy of education and the mission of Seventh-day Adventist Church

DEGREES OFFERED BY THE SCHOOL OF EDUCATION

DOCTORAL

1. Doctor of Philosophy (PhD) in Education with specialization in Educational Administration;
2. Doctor of Philosophy (PhD) in Education with specialization in Curriculum and Teaching

MASTERS

1. Master of Education (MEd) with specialization in Educational Administration;
2. Master of Education (MEd) with specialization in Curriculum and Teaching.

POST-GRADUATE DIPLOMA IN EDUCATION (PGDE)

BACHELORS

1. Bachelor of Arts in Counseling Psychology
2. Bachelor of Arts- in Development Studies
3. Bachelor of Arts in English Language
4. Bachelor of Arts in French
5. Bachelor of Arts in History
6. Bachelor of Arts in Kiswahili
7. Bachelor of Arts in Linguistics
8. Bachelor of Arts in Literature
9. Bachelor of Arts in Mass Communication
 - a. Electronic Media Specialization
 - b. Print Media Specialization
 - c. Public Relations and Advertising
10. Bachelor of Arts in Music Performance
11. Bachelor of Arts in Religion
12. Bachelor of Arts in Theology
13. Bachelor of Arts/Science in Geography
14. Bachelor of Education (Arts)
15. Bachelor of Education (Science)

Minors

1. Minor in Counseling Psychology
2. Minor in Development Studies
3. Minor in Electronic Media
4. Minor in English Language/Linguistics
5. Minor in Environmental Studies
6. Minor in French
7. Minor in Geographic Information Systems (GIS)
8. Minor in Geography
9. Minor in Health Psychology
10. Minor in History
11. Minor in Kiswahili
12. Minor in Literature
13. Minor in Music
14. Minor in Political Science
15. Minor in Print Media
16. Minor in Psychology
17. Minor in Public Relations and Advertising
18. Minor in Religion
19. Minor in Social Work

FACULTY

Kinuthia, B., PhD. Head of Department
Amimo, C., PhD.
Ayiemba, J., PhD.
Kamundi, S., PhD.
Kamundi, T., PhD
Kerubo, J., PhD.
Marundu, D., PhD.
Metto, E., PhD.
Mwangi, P., PhD.
Odek, S., PhD.
Ojwan'g, M., PhD.
Wahonya, P., PhD.

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PHILOSOPHY

The Department of Education operates on the UEAB worldview, which holds that God is the Creator and Sustainer of the universe and life and is the source of true knowledge. The entrance of sin caused man's alienation from God; therefore, the educative process seeks to restore the relationship of men and women with God by preparing teachers, school administrators, curriculum experts and researchers who fully understand God's will for humanity and endeavor to treat their students, colleagues, leaders and subordinates with dignity, love, humility and care by emulating the example of Jesus Christ, the Master Teacher. This approach will lead learners into self-actualization and to discover and understand the truth through positive critical thinking.

MISSION

The Mission of the Department of Education is to provide and advance wholistic, Christian, quality education which develops learners to be earnest seekers of truth and equip them with appropriate knowledge, skills, attitudes, technology and understanding for the teaching and leadership roles at preschool, primary and secondary school, college and university levels for the glory of God.

VISION

The Department of Education envisions being a center of excellence in higher education and research producing world-class teachers, educational administrators, curriculum experts and researchers equipped with moral virtues.

DEGREES OFFERED BY THE DEPARTMENT

1. Doctor of Philosophy (PhD) in Education with specialization in Educational Administration;
2. Doctor of Philosophy (PhD) in Education with specialization in Curriculum and Teaching.
3. Master of Education (MEd) with specialization in Educational Administration;
4. Master of Education (MEd) with specialization in Curriculum and Teaching.
5. Post Graduate Diploma in Education (PGDE).
6. Bachelor of Education (BED) – Arts.
7. Bachelor of Education (BED) – Science

EXPECTED LEARNING OUTCOMES

Graduates of the Department of Education will be able to:

1. Define such terms as teaching, education, school, schooling, curriculum, administration, and supervision;
2. Explain the historical and philosophical development of education in various societies of the world with great emphasis on Kenya;
3. Discuss the life of Jesus Christ as a Master Teacher;
4. Discuss stages of human growth and development in relation to their emotional, social, and cognitive development associated with learning;
5. Develop a subject curriculum with a vision, philosophy, mission, goals, objectives and teaching and learning strategies in the light of national and millennium development goals;
6. Describe characteristics of effective professional teaching;
7. Prepare schemes of work, lesson plans, and school syllabus;
8. Differentiate between methods and techniques of teaching;
9. Demonstrate the use of primary, secondary and tertiary technologies in classroom teaching;
10. Compare and contrast educational system in Kenya with those of selected countries in Africa, Europe, Asia and America;
11. Identify student needs, interests and potentials related to the teaching and learning process;
12. Discuss theories of learning and their influence on student learning;
13. Construct, validate, and administer essay and objective tests and examinations based on the expected learning outcomes;
14. Apply administrative, management, and leadership functions in schools and instructions associated with the teaching and learning process;
15. Construct a vision, philosophy, mission, goals, objectives and strategies in the process of laying out short term, medium term and long term plans for an educational institution and organization;
16. Plan for human capital for economic, political and social development of a nation;
17. Practice teaching for a period of not less than 13 weeks in a school situation;
18. Carry out research to improve quality of life through the educative process

BACHELOR OF EDUCATION (SECONDARY)

Students seeking to be secondary school teachers enroll for either a Bachelor of Education (Science) or a Bachelor of Education (Arts).

EXPECTED LEARNING OUTCOMES

Student graduating from the Bachelor of Education degree program should be able to:

1. Identify student needs, interests and potentials related to the learning process;
2. Prepare schemes of work/course outline, lesson plans and record of work in their areas of specialization;
3. Teach secondary school subjects;
4. Prepare and administer class and subject tests and examination to evaluate the effectiveness of the teaching learning process;
5. Utilize techniques and methods of teaching appropriate to students' abilities in subjects of their specialization;

6. Manage secondary schools and/or any other educational related institution/organization;
7. Apply professional ethics and Christian values in their roles as school teachers, supervisors and administrators
8. Identify children with psychological and academic difficulties;
9. Provide support for children with psychological and academic difficulties;
10. Pursue further studies in education or any other subject area of their specialization.
11. Discuss the life of Jesus Christ, the Master Teacher

ENTRANCE REQUIREMENTS

Direct Entry

For admission into the Bachelor of Education program the applicant must

1. Pass KCSE with a minimum mean grade of C+ at secondary school certificate level or its equivalent or
2. Have an advanced level certificate with two principal passes and division II at O-level or its equivalent or
3. Have a diploma in education from a government recognized institution and have a mean grade of C+ at KCSE or its equivalent

The student must pursue two teaching subjects selected from courses that were done and passed at secondary school level. No student is allowed to take education courses with the teaching subjects that were not done and passed with a minimum grade of C+ at KCSE or its equivalent

Interdepartmental Transfers

Students wishing to transfer from other departments to the Department of Education to be trained as teachers must do so during the first and second years of their program and must have met all the requirements for direct entry into the Bachelor of Education.

GRADUATION REQUIREMENTS

In addition to the graduation policy of UEAB as stipulated in this bulletin, the Department of Education recommends a student for graduation to the School of Education, Humanities and Social Sciences Board and to the Senate upon completion of the following requirements:

1. A minimum overall GPA of 2.00.
2. A minimum GPA of 2.25 for the professional courses and two teaching subjects.
3. Successful completion of EDTE 399 Teaching Practice in Secondary Schools for twelve to thirteen continuous weeks in a selected secondary school

TEACHING SUBJECTS

Students selecting this degree are required to enroll in two teaching subjects taught at secondary school level. The subjects must be selected from either arts or sciences as indicated below.

Geography is the only teaching subject which fits in both arts and science categories.

Bachelor of Education (Arts)

Students seeking a Bachelor of Education (Arts) degree select from the following subject combinations as per Teachers Service Commission

1. Geography/CRE;
2. History/CRE;

3. Geography/History;
4. Geography/Kiswahili;
5. English/Literature;
6. Kiswahili/CRE;
7. Kiswahili/History;
8. Kiswahili/Geography
9. Home Science/History
10. Home Science/CRE
11. Home Science/Geography
12. Home Science/Kiswahili
13. Music

Students planning to take English Language must also take Literature in English. This means that a student may opt for a concentration in English language and literature and is not required to take any other second teaching subject. This is because the candidate's area of study covers the language and literature disciplines as required for teaching English language in Secondary Schools. Students planning to teach Kiswahili are advised to take a second teaching subject in Religion, History or Geography.

Bachelor of Education (Science)

Students seeking a Bachelor of Education (Science) degree select from the following subject combinations as per Teachers Service Commission:

1. Chemistry/Biology;
2. Chemistry/Physics;
3. Agriculture/Biology;
4. Agriculture/Chemistry;
5. Agriculture/Geography;
6. Biology/Geography;
7. Home Science/Agriculture;
8. Home Science/Biology;
9. Home Science/Mathematics
10. Physics/Computer;
11. Mathematics/Chemistry;
12. Mathematics/Biology;
13. Mathematics/Physics;
14. Mathematics/Business Studies;
15. Mathematics/Geography
16. Mathematics/Computer;
17. Biology/Business Studies;
18. Business Studies/Geography
19. Chemistry/Business Studies

Teaching subjects are drawn from various departments of the university under the guidance of the department head of Education and two other department heads from where the candidate draws the two teaching subjects as areas of study.

REQUIREMENTS FOR TEACHING PRACTICE

Graduation requirements include 6 credits of teaching practice for 12 to 13 weeks depending on the length of the school term when students are practicing teaching. School terms are scheduled by the Ministry of Education

1. In order to qualify for teaching practice, the student teacher is expected to have completed:
 - a. All the prescribed General Education Requirements with a GPA of 2.00,
 - b. At least 70% of required professional courses (including EDPC 106, EDFO 130, EDTE 210, EDTE 255, EDTE 301 and two courses with a code of EDTM addressing the teaching subjects) with a minimum grade of C- in an individual subject and an accumulative GPA of 2.25 or C+; and

- c. At least 70% of the requirements for the first and second teaching subjects with a minimum GPA of 2.25;
- d. Attend an orientation seminar on teaching practice;
2. Students on teaching practice must be physically present at the cooperating school throughout the duration of the school days and throughout the school term;
3. A student on teaching practice is required to attend meetings and activities taking place on the cooperating school campus;
4. Students on teaching practice are expected to observe the rules and regulations of the University of Eastern Africa, Baraton, the Ministry of Education, the Teachers' Service Commission, the Teachers' Code of Ethics and the institution to which they are assigned.

COURSE REQUIREMENTS

GENERAL EDUCATION REQUIREMENTS COURSES

11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES

55 Credits

Code	Course Title	Credits
Teacher Education		17 Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
Educational Psychology		8 Credits
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
Educational Foundations		18 Credits
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Subject Teaching Methods Courses		6 Credits
EDTM 311	Special Methods in Teaching History and Government	3
EDTM 312	Special Methods in Teaching Religious Education	3
EDTM 313	Special Methods in Teaching Geography Government	3
EDTM 314	Special Methods in Teaching English Language	3

EDTM 315	Special Methods in Teaching Literature in English	3
EDTM 316	Special Methods in Teaching Kiswahili Language	3
EDTM 321	Special Methods in Teaching Biology	3
EDTM 322	Special Methods in Teaching Agriculture	3
EDTM 323	Special Methods in Teaching Home Science	3
EDTM 324	Special Methods in Teaching Chemistry	3
EDTM 325	Special Methods in Teaching Mathematics	3
EDTM 326	Special Methods in Teaching Physics	3
EDTM 329	Special Methods in Teaching Business Studies	3
EDTM 338	Special Methods in Teaching Computer Science	3
EDTM 339	Special Methods in Teaching Music	3
Teaching Practice		6 Credits
EDTE 399	Teaching Practice in Secondary School	6
Total		55

Note: A student is required to take two of the subject teaching method courses, selected from the above list. The subject areas must correspond with the subjects the candidate will be teaching after graduating from the University.

BACHELOR OF EDUCATION (ARTS)

BACHELOR OF EDUCATION (ARTS) IN TEACHING CHRISTIAN RELIGIOUS EDUCATION

SUMMARY

General Education Requirements	6
Core	55
Teaching Religious Education	45
Second Teaching Subject	42
Total	148 Credits

Note: Religion majors are exempted from the following General Education Requirements courses.

1. RELB 220 Life and Teachings of Jesus
2. RELT 207 Christian Beliefs

GENERAL EDUCATION REQUIREMENTS COURSES

6 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
Total		6

CORE COURSES

55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3

EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 312	Special Methods in Teaching Religious Education	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING CHRISTIAN RELIGIOUS EDUCATION 45 Credits

Code	Course Title	Credits
RELB 204	Old Testament Studies	3
RELB 331	New Testament Studies	3
RELH 114	Introduction History of Christian Church	3
RELT 128	Adventist History and Philosophy	3
RELT 131	African Traditional Religions	3
RELT 216	Comparative Religions	3
RELT 231	Phenomenology of Religion	3
RELT 280	Philosophy of Religion	3
RELT 330	Islamic Studies	3
RELT 337	Sociology of Religion	3
RELT 418	New Religious Movements in Africa	3
RELT 427	Christian Doctrines	3
RELT 435	Issues in Ecumenism	3
RELT 460	Contemporary Themes in Christian Theology	3
RELT 480	History of the Christian Church in Africa	3
Total		45

BACHELOR OF EDUCATION (ARTS) IN TEACHING ENGLISH LANGUAGE AND LITERATURE

SUMMARY

General Education Requirements	11
Core	55
Specialization in Language and Literature	83
Total	149 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2

RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 314	Special Methods in Teaching English Language	3
EDTM 315	Special Methods in Teaching Literature in English	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING ENGLISH LANGUAGE 42 Credits

Code	Course Title	Credits
ENGL 114	Introduction to the Description of English	3
ENGL 130	Introduction to the Study of Language	3
ENGL 148	English Grammar and Usage I	3
ENGL 216	Origins and Development of English	3
ENGL 217	Phonetics and Phonology	3
ENGL 218	Morphology and Syntax	3
ENGL 219	English Grammar and Usage II	3
ENGL 302	Language Policy and Issues	3
ENGL 305	English Structure and Semantics	3
ENGL 347	Second Language Acquisition	3
ENGL 456	Varieties of English	3
ENGL 463	Psycholinguistics	3
ENGL 465	Principles of Creative Writing	3
ENGL 469	Research Project / Seminar	3
Total		42

TEACHING LITERATURE IN ENGLISH 41 Credits

Code	Course Title	Credits
LITE 151	Introduction to Literary Appreciation	2
LITE 154	Introduction to Oral Literature	3
LITE 165	Stylistics	3
LITE 210	East African Prose Fiction	3
LITE 212	East African Poetry	3

LITE 214	East African Drama	3
LITE 260	Children's Literature	3
LITE 346	Introduction to Literary Theory and Criticism	3
LITE 347	South African Literature	3
LITE 348	European Literature	3
LITE 449	Modern Poetry	3
LITE 450	Theatre Arts	3
LITE 456	Caribbean Literature	3
LITE 350	African American Literature	3
Total		41

BACHELOR OF EDUCATION (ARTS) IN TEACHING GEOGRAPHY

SUMMARY

General Education Requirements	11
Core	55
Teaching Geography	42
Second Teaching subject	42
Total	150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 313	Special Methods in Teaching Geography	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING GEOGRAPHY 42 Credits

Code	Course Title	Credits
GEOG 101	Introduction to Geography	3
GEOG 114	Fundamentals of Physical Geography	3
GEOG 123	Fundamentals of Human Geography	3
GEOG 130	Introduction to Cartography, Map work and Land Surveying	3
GEOG 296	Geomorphological Studies	3
ENVI 298	Hydrological Studies and Water Resources	3
GEOG 226	Geography of Tourism and Leisure	3
GEOG 310	Geography of Kenya and the East African Region	3
GEOG 321	Remote Sensing	3
GEOG 326	Agricultural Geography	3
GEOG 355	Geographical Information Systems (GIS)	3
GEOG 410	Research Methods in the Social Sciences	3
GEOG 430	Meteorology and Climatology	3
GEOG 498	Independent Research Project in Geography	3
Total		42

BACHELOR OF EDUCATION (ARTS) IN TEACHING HISTORY

SUMMARY

General Education Requirements	11
Core	55
Teaching History	42
Second Teaching subject	42
Total	50 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 311	Special Methods in Teaching History and Government	3

EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING HISTORY 42 Credits

Code	Course Title	Credits
HIST 106	Sources of African History	3
HIST 120	Introduction to Kenyan History	3
HIST 203	Introduction to African History to 1884	3
HIST 204	Introduction to African History since 1884	3
HIST 213	Themes in World History to 1500	3
HIST 313	Themes in East African History	3
HIST 345	Methods of Historical Research	3
HIST 380	Philosophy of History	3
HIST 421	Imperialism and Nationalism in the Third World	3
HIST 440	History of Political Ideas	3
HIST 447	History of International Relations	3
POLS 100	Introduction to Government	3
POLS 200	Modern Governments in Africa	3
POLS 230	Comparative Government in Developed Countries	3
Total		42

BACHELOR OF EDUCATION (ARTS) IN TEACHING KISWAHILI

SUMMARY

General Education Requirements	11
Core	55
Teaching Kiswahili	42
Second Teaching subject	42
Total	150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 316	Special Methods in Teaching Kiswahili	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING KISWAHILI 42 Credits

Code	Course Title	Credits
KISW 110	Introduction to the Study of Language	3
KISW 111	Historical and Modern Development of Kiswahili	3
KISW 114	Language Skills in Kiswahili I	3
KISW 120	Phonetics and Phonology	3
KISW 225	Kiswahili Morphology and Syntax	3
KISW 265	Language Skills in Kiswahili II	3
KISW 285	Second Language Learning	3
KISW 315	Theories of Literary Criticism	3
KISW 350	Oral Literature in Kiswahili	3
KISW 365	Contemporary Kiswahili Novel and Play	3
KISW 395	Research Methods in Language and Literature	3
KISW 420	Semantics and Pragmatics in Kiswahili	3
KISW 460	Kiswahili Language and Planning	3
KISW 425	Senior Seminar in Kiswahili	3
Total		42

BACHELOR OF EDUCATION (ARTS) IN TEACHING MUSIC

SUMMARY

General Education Requirements	11
Core	55
Teaching Kiswahili	42
Second Teaching subject	42
Total	150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES

11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES

55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 339	Special Methods in Teaching Music	3
EDTM xxx	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING MUSIC (CONCENTRATION IN VOICE)

42 Credits

Code	Course Title	Credits
MUPF 131	Voice I	1
MUPF 132	Voice II	1
MUPF 231	Voice III	1
MUPF 232	Voice IV	1
MUPF 331	Voice V	1
MUPF 101	Piano I	1
MUPF 102	Piano II	1

MUPF 241	Strings	1
MUPF 242	Woodwinds	1
MUPF 341	Brass	1
MUPF 342	Percussion	1
MUTH 160	Music Theory and Composition I	2
MUTH 161	Music Theory and Composition II	2
MUTH 260	Music Theory and Composition III	2
MUPF 171	Musicianship I	2
MUPF 172	Musicianship II	2
MUHL 281	Survey of Music History and Literature I	2
MUHL 282	Survey of Music History and Literature II	2
MUHL 381	Survey of Music History and Literature III	2
MUAF 314	African Music	2
MUAF 315	Kenyan Music	2
MUED 325	Introduction to Music Education	2
MUED 491	Conducting I	2
MUED 492	Conducting II	2
MUPF 355	Choral Ensemble	2
Total		42

TEACHING MUSIC (CONCENTRATION IN PIANO)

42 Credits

Code	Course Title	Credits
MUPF 101	Piano I	1
MUPF 102	Piano II	1
MUPF 201	Piano III	1
MUPF 202	Piano IV	1
MUPF 301	Piano V	1
MUPF 131	Voice I	1
MUPF 132	Voice II	1
MUPF 241	Strings	1
MUPF 242	Woodwinds	1
MUPF 341	Brass	1
MUPF 342	Percussion	1
MUTH 160	Music Theory and Composition I	2
MUTH 161	Music Theory and Composition II	2
MUTH 260	Music Theory and Composition III	2
MUTH 261	Music Theory and Composition IV	2
MUTH 360	Music Theory and Composition V	2
MUPF 171	Musicianship I	2
MUPF 172	Musicianship II	2
MUHL 281	Survey of Music History and Literature I	2
MUHL 282	Survey of Music History and Literature II	2
MUHL 381	Survey of Music History and Literature III	2
MUAF 314	African Music	2
MUAF 315	Kenyan Music	2
MUED 325	Introduction to Music Education	2
MUED 491	Conducting I	2
MUED 492	Conducting II	2
MUPF 365	Instrumental Ensemble	1
Total		42

BACHELOR OF EDUCATION (SCIENCE)

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING AGRICULTURE

SUMMARY

General Education Requirements	11
Core	55
Teaching Agriculture	41
Second Teaching subject	41 -42
Total	148 -149 Credits

GENERAL EDUCATION REQUIREMENTS COURSES

11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES

55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 322	Special Methods in Teaching Agriculture	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING AGRICULTURE

41 Credits

Code	Course Title	Credits
AGEC 345	Agricultural Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2

AGRI 116	Agriculture Ecology Trip	1
AGRI 335	Mushroom Production	2
ANSC 211	Introduction to Animal Science	3
ANSC 411	Poultry Science	3
ANSC 442	Dairy Production	3
CPSC 213	Introduction to Soils	3
CPSC 279	Crop Physiology	3
CPSC 314	Crop Production I	3
CPSC 325	Crop Production II	3
CPSC 412	Crop Protection	3
Total		41

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING BIOLOGY

SUMMARY

General Education Requirements	11
Core	55
Teaching Biology	41
Second Teaching subject	41 -42
Total	148 -149 Credits

GENERAL EDUCATION REQUIREMENTS COURSES

11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES

55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 321	Special Methods in Teaching Biology	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING BIOLOGY**41 Credits**

Code	Course Title	Credits
BIOL 151	Fund Biology I/General Genetics	3
BIOL 152	Fund Biology II/General Botany	3
BIOL 153	Fund Biology III/Invert and Vertebrate Zoology	3
BIOL 176	Introduction to Microbiology	3
BIOL 285	Biostatistics	3
BIOL 286	General Ecology	3
BIOL 290	Fundamentals of Cell and Molecular Biology	4
BIOL 296	History and Philosophy of Biology	3
BOTN 374	Systematic Botany	3
BOTN 432	Plant Physiology	3
ZOOL 360	Parasitology and Immunology	3
ZOOL 448	Developmental Biology	3
ZOOL 464	Systems Physiology	4
Total		41

BACHELOR OF EDUCATION (SCIENCE/ ARTS) IN TEACHING BUSINESS EDUCATION

SUMMARY

General Education Requirements	11
Core	55
Teaching Business Education	41
Second Teaching subject	41 -42
Total	149 -150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES**11 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES**55 Credits**

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 329	Special Methods in Teaching Business Studies	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3

EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING BUSINESS EDUCATION**42 Credits**

Code	Course Title	Credits
BSED 130	Principles and Practice of Management	3
BSED 106	Sales Management and Marketing	3
BSED 166	Purchasing and Supply Logistics	3
BSED 220	Business Statistics	3
BSED 250	Intermediate Economics	3
BSED 253	Investment	3
BSED 315	Office Admin and Management	3
BSED 341	Business Law	3
BSED 358	Organizational Theory and Behavior	3
BSED 360	Public and Business Finance	3
BSED 430	Theory and Practice of HRM	3
BSED 433	Financial and Managerial Accounting	3
BSED 461	Auditing	3
BSED 490	Marketing Research	3
Total		42

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING CHEMISTRY

SUMMARY

General Education Requirements	11
Core	55
Teaching Chemistry	42
Second Teaching subject	41 -42
Total	149 -150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES**11 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES**55 Credits**

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3

EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 324	Special Methods in Teaching Chemistry	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING CHEMISTRY 42 Credits

Code	Course Title	Credits
CHEM 120	Fundamentals of Chemistry	3
CHEM 130	Introduction to Organic Chemistry	3
CHEM 154	Introduction to Analytical Chemistry	3
CHEM 171	Organic Functional Groups	3
CHEM 205	Atomic Structure and Bonding	3
CHEM 231	Physical Chemistry I	3
CHEM 235	Chemical Analysis and Structural Determination	3
CHEM 271	Chemical Thermodynamics and Phase Equilibria	3
CHEM 341	Inorganic Chemistry I	3
CHEM 345	Synthetic Organic Chemistry	3
CHEM 394	Heterocyclic chemistry and Stereochemistry	3
CHEM 402	Transition Metals Chemistry	3
CHEM 405	Industrial Chemistry I	3
CHEM 425	Electrochemistry	3
Total		42

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING COMPUTER SCIENCE

SUMMARY

General Education Requirements	9
Core	55
Teaching Computer Science	42
Second Teaching subject	41 -42
Total	147 -148 Credits

Students taking Computer Science are exempted from INSY 107 Information Technology Today

GENERAL EDUCATION REQUIREMENTS COURSES 9 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1

RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		9

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 338	Special Methods in Teaching Computer Science	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING COMPUTER SCIENCE 42 Credits

Code	Course Title	Credits
CSED 118	Introduction to Computers	2
INSY 136	Microcomputer Applications	3
COSC 161	Programming in C	3
INSY 211	Database Management Systems	3
COSC 228	Computer Organizations	3
COSC 261	Operating Systems	3
COSC 262	Data Structures and Algorithms	3
INSY 314	Web Design and Internet Tech	3
COSC 337	Networks and Telecommunications	3
COSC 343	Foundations of HCI	3
COSC 372	Object Oriented Programming	3
INSY 443	Research Methods in IT	2
INSY 481	System Analysis and Design	3
INSY 497	IT Project Management	3
COSC 498	Senior Project	2
Total		42

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING HOME SCIENCE

SUMMARY

General Education Requirements	11
Core	55
Teaching Home Science	42
Second Teaching subject	41 -42
Total	149 -150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 323	Special Methods in Teaching Home Science	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING HOME SCIENCE 42 Credits

Code	Course Title	Credits
HOSC 116	Creative Needle Work	1
HOSC 120	Introduction to Food Preparation (with Practical)	3
HOSC 150	Clothing Construction I (with Practical)	3
HOSC 170	Resource Management in the Family	3

HOSC 216	Clothing Construction II (with Practical)	1
HOSC 230	Nutrition and Health	3
HOSC 235	Pattern Drafting	3
HOSC 250	Child Development and Growth	3
HOSC 300	Family Living	2
HOSC 318	Personal Hygiene and Good Grooming	3
HOSC 319	Design for Living	3
HOSC 330	Meal Preparation and Management	3
HOSC 400	Public Health and Community Nutrition	3
HOSC 415	Tailoring	3
HOSC 450	Food Demonstration Skills	2
HOSC 455	Quantity Food Management and Production	3
Total		42

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING MATHEMATICS

SUMMARY

General Education Requirements	11
Core	55
Teaching Home Science	42
Second Teaching subject	41 -42
Total	149 -150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 325	Special Methods in Teaching Mathematics	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3

EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING MATHEMATICS 42 Credits

Code	Course Title	Credits
MATH 124	Basic Mathematics and Analytical Geometry	3
MATH 127	Differential Calculus	3
MATH 150	Linear Algebra I	3
MATH 227	Integral Calculus	3
MATH 240	Real Analysis I	3
MATH 248	Ordinary Differential Equations I	3
MATH 274	Complex Analysis I	3
COSC 150	Applied Statistics in IT	3

For Levels Three and Four courses a student selects 9 credits for each level. Courses are selected from either Pure Mathematics or Applied Mathematics or Statistics

LEVEL THREE 9 Credits

(Option: Pure Mathematics)

Code	Course Title	Credits
MATH 340	Real Analysis II	3
MATH 346	Group Theory	3
MATH 354	Ring Theory	3
MATH 365	Number Theory	3
MATH 371	Linear Algebra II	3
MATH 375	Algebraic Structures	3

(Option: Applied Mathematics)

Code	Course Title	Credits
MATH 336	Numerical Analysis I	3
MATH 340	Real Analysis II	3
MATH 348	Ordinary Differential Equations II	3
MATH 355	Dynamics	3
MATH 380	Analytic Applied Mathematics	3
MATH 385	Fluid Mechanics	3

(Option: Statistics)

Code	Course Title	Credits
STAT 300	Multivariate Probability Distributions	3
STAT 305	Theory of Estimation	3
STAT 308	Operation Research	3
STAT 313	Tests of Hypothesis	3
STAT 330	Sample Survey	3
STAT 336	Quality Control Methods	3

LEVEL FOUR 9 Credits

(Option: Pure Mathematics)

Code	Course Title	Credits
MATH 411	Field Theory	3
MATH 412	Galois Theory	3
MATH 414	Topology	3

MATH 415	Measures Theory and Integration	3
MATH 474	Complex Analysis II	3
MATH 480	Functional Analysis	3
MATH 483	Coding Theory	3

(Option: Applied Mathematics)

Code	Course Title	Credits
MATH 404	Numerical Methods	3
MATH 408	Differential Geometry	3
MATH 414	Topology	3
MATH 445	Partial Differential Equations	3
MATH 447	Fluid Flow Analysis	3
MATH 448	Method of Fluid Mechanics	3
MATH 474	Complex Analysis II	3
MATH 480	Functional Analysis I	3

(Option: Statistics)

Code	Course Title	Credits
STAT 400	Stochastic Process	3
STAT 410	Design and Analysis of Experiments	3
STAT 415	Multivariate Methods	3
STAT 425	Measure and Probability	3
STAT 430	Systems Analysis and Design	3
STAT 435	Time Series Analysis	3

BACHELOR OF EDUCATION (SCIENCE) IN TEACHING PHYSICS

SUMMARY

General Education Requirements	11
Core	55
Teaching Physics	42
Second Teaching subject	41 -42
Total	149 -150 Credits

GENERAL EDUCATION REQUIREMENTS 11 Credits COURSES

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES 55 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3

EDTE 399	Teaching Practice in Secondary School	6
EDTM 326	Special Methods in Teaching Physics	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 403	Entrepreneurship Education	3
EDFO 410	Environmental Education	2
Total		55

TEACHING PHYSICS

42 Credits

Code	Course Title	Credits
PHYS 160	Mechanics	3
PHYS 165	Heat and Thermodynamics	3
PHYS 170	Geometric Optics	3
PHYS 180	Introduction to Quantum Physics	3
PHYS 215	Waves and Oscillations	3
PHYS 231	Electricity and Magnetism I	3
PHYS 232	Electricity and Magnetism II	3
PHYS 255	Quantum Mechanics	3
PHYS 300	Properties of Matter	3
PHYS 335	Physical Optics	3
PHYS 345	Electronics	3
PHYS 410	Nuclear Physics	3
PHYS 415	Solid State Physics	3
PHYS 431	Environmental and Renewable Energy Physics I	3
Total		42

BACHELOR OF EDUCATION (UPGRADERS FROM DIPLOMA IN EDUCATION)

ENTRANCE REQUIREMENTS

The Department of Education offers a Bachelor of Education degree to teachers holding a Diploma in Primary teaching and teachers holding a Diploma in Secondary School Teaching. Graduates of this program are trained to teach in primary schools or secondary schools. Students under this program enroll for either a Bachelor of Education (Science) or a Bachelor of Education (Arts). The students admitted into the Bachelor of Education program should:

1. Hold a Secondary School Certificate with either a mean grade of C+.
2. Hold a two and half years Primary or Secondary Teacher's Diploma taken after passing School Certificate Examinations;
3. The selected teaching subjects must have been passed with at least C+ at KCSE or its equivalent.

The student must pursue two teaching subjects selected from courses that were done and passed at secondary school level. No student is allowed to take education courses with the teaching subjects that were not done and passed with a minimum grade of C+ at KCSE or its equivalent

COURSE INTAKE

Bachelor of Education students may join regular students in the regular semester. They may also join a part-time program.

DURATION OF THE COURSE

The Bachelor of Education degree takes a minimum period of four years and a maximum period of five years to regular students with effect from the date of the commencement of the course. Part time students must complete the program in a minimum period of five and half years and maximum of seven years. Courses taken after seven years must be repeated.

GRADUATION REQUIREMENTS

The student must meet the general graduation requirements of the University.

TEACHING PRACTICE

For students admitted into this program with a Primary teaching Diploma or Secondary teaching Diploma to graduate under a Bachelor of Education degree, 3 credits of teaching practice must be completed. This exercise takes 12 to 13 weeks depending on the length of the term. This can be done in the schools where they are working as teachers since most of them are already hired by the Teachers Service Commission.

1. In order to qualify for teaching practice, the student teacher is expected to have completed
 - a. All the General Education Requirements required for them with a minimum GPA of 2.00;
 - b. At least 70% of the first and second teaching subjects being pursued with a minimum GPA of 2.25; and
 - c. At least 70% of the professional courses with a minimum grade of C- and a GPA of 2.25;
 - d. Seminar orientation on Teaching Practice.
2. All students in teaching practice must be physically present at the cooperating school throughout the duration of the school day and throughout the school term;
3. A student on teaching practice is required to attend all required meetings and activities taking place on the school campus;
4. Students on teaching practice are expected to respect the rules and regulations of the University, the Code of Regulation, the Code of Ethics of the Ministry of Education, the Teachers' Service Commission and the institution to which they are assigned;
5. Students must complete teaching practice in two teaching subjects to satisfy the Ministry of Education's stipulation of two subject areas.

BACHELOR OF EDUCATION (SCIENCE and ARTS) FOR UPGRADING STUDENTS WITH DIPLOMA SECONDARY TEACHING

SUBJECT EXEMPTION

Students taking a Bachelor of Education who entered into the program with a Diploma in Education taken after completing Secondary School with a mean grade of C+ and with the selected teaching subjects having been passed with at least C+ in KCSE or its equivalent will be exempted from:

- Thirteen (13) credits of professional education courses as follows:
 - EDPC 238 Human Growth and Development 3 Credits
 - EDTE 180 Health Education and Life Skills 2 Credits
 - EDFO 130 History of Education 2 Credits
 - EDTE 255 Principles and Methods of Teaching 3 Credits
 - Teaching Practice 3 Credits
- Twelve (12) credits from each of the two teaching areas. The courses exempted must in either level 1 or level 2. Therefore twenty four (24) credits in total shall be exempted from the two teaching areas.
- Students taking Religious Education as a teaching subject are in addition exempted from courses whose content is covered in the teaching area. These courses are: RELB 220 Life and Teachings of Jesus Christ, RELH 155 Adventist Heritage, and RELT 207 Christian Beliefs.

SUMMARY

General Education Requirements	11
First teaching subject	30
Second teaching subject	30
Teaching Professional Courses	37
Total	108 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 11 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		11

CORE COURSES

36 Credits

(Teacher Education - 12 Credits)

Code	Course Title	Credits
(Teacher Education - 12 Credits)		
EDTE 210	Curriculum Development	3
EDTE 301	Educational Communication and Technology	3
EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3

Educational Psychology - 5 Credits

Code	Course Title	Credits
EDPC 106	Educational Psychology	3
EDPC 244	Educational Guidance and Counseling	2

(Educational Foundations - 17 Credits)

Code	Course Title	Credits
EDFO 260	Philosophy of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 410	Environmental Education	3
EDFO 403	Entrepreneurship Education	3

(Teaching Practice - 3 Credits)

Code	Course Title	Credits
EDTE 398	Teaching Practice	3

(Prerequisites: EDPC 106, EDPC 238, EDTE 210, EDTE 255, EDTE 326, and any two of the EDTM 311 to EDTM 378 courses applicable to the teaching subject areas, approved by the Department, and attending an orientation seminar on teaching practice).

TEACHING SUBJECTS COURSE LISTING (36 CREDITS FOR EACH OF THE TWO AREAS)

For the course listing of selected teaching subjected the students will refer to the Level Two, Three and Four courses of respective Bachelor of Education for the Regular students

Teaching Subjects: 1st...GEOGRAPHY 2nd...HISTORY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	1	1	2	
	GEOG 101	Introduction to Geography	3	0	3	ENGL 106	Speech Communication	1	0	1	
	GEOG 114	Fundamentals of Physical Geography	3	0	3	INSY 107	Information Technology Today	2	0	2	
	HIST 120	Introduction to Kenyan History	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3	
	HIST 106	Sources of African History	3	0	3	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3	
						POLS 100	Introduction to Government	3	0	3	
						EDFO 130	History of Education	2	0	2	
Total			18	0	18	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	GEOG 296	Geomorphological Studies	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	ENVI 298	Hydrological Studies and Water Resources	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3	
	HIST 203	Introduction to African History to 1884	3	0	3	HIST 204	Introduction to African History Since 1884	3	0	3	
	POLS 200	Modern Governments in Africa	3	0	3	HIST 213	Themes in World History to 1500	3	0	3	
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 313	Methods Teaching Geography	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 311	Methods Teaching History	2	1	3	
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	GEOG 321	Remote Sensing	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3	
	POLS 230	Comparative Government in Developed Countries	3	0	3	HIST 345	Methods of Historical Research	3	0	3	
	HIST 313	Themes in East African History	3	0	3	HIST 380	Philosophy of History	3	0	3	
Total			17	1	18	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	4	
	HIST 440	History of Political Ideas	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	HIST 447	History of International Relations	3	0	3	
	GEOG 326	Agricultural Geography	3	0	3	HIST 421	Imperialism and Nationalism in the Third World	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2						
Total			19	0	19	Total			17	0	17

Teaching Subjects: 1st...GEOGRAPHY 2nd... KISWAHILI

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	1	1	2	
	GEOG 101	Introduction to Geography	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3	
	GEOG 114	Fundamentals of Physical Geography	3	0	3	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3	
	KISW 114	Language Skills in Kiswahili I	3	0	3	KISW 111	Historical Development of Kiswahili	3	0	3	
	KISW 110	Introduction to the Study of Language	3	0	3	KISW 120	Phonetics and Phonology in Kiswahili	3	0	3	
						EDFO 130	History of Education	2	0	2	
Total			18	0	18	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	GEOG 321	Remote Sensing	3	0	3	KISW 225	Kiswahili Morphology and Syntax	3	0	3	
	GEOG 296	Geomorphological Studies	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3	
	ENVI 298	Hydrological Studies and Water Resources	3	0	3	KISW 285	Second Language Learning	3	0	3	
	KISW 265	Language Skills in Kiswahili II	3	0	3	ENGL 106	Speech Communication	1	0	1	
						INSY 107	Information Technology Today	2	0	2	
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 313	Methods Teaching Geography	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 316	Methods Teaching Kiswahili	2	1	3	
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	KISW 315	Theories and Literary Criticism	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3	
	KISW 350	Oral Literature in Kiswahili	3	0	3	KISW 365	Contemporary Kiswahili Novel and Play	3	0	3	
	EDFO 403	Entrepreneurship Education	3	0	3	KISW 395	Research Methods in Language and Literature	3	0	3	
Total			17	1	18	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	RELB 220	Life and Teachings of Jesus	2	0	2	
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3	
	KISW 420	Semantics and Pragmatics in Kiswahili	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3	
	KISW 425	Senior Seminar in Kiswahili	3	0	3	KISW 460	Kiswahili Language and Planning	3	0	3	
	GEOG 326	Agricultural Geography	3	0	3	RELT 207	Christian Beliefs	3	0	3	
					EDPC 244	Educational Guidance and Counseling	2	0	2		
Total			18	0	18	Total			18	0	18

Teaching Subjects: 1st... HISTORY 2nd... KISWAHILI

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	1	1	2	
	HIST 120	Introduction to Kenyan History	3	0	3	ENGL 106	Speech Communication	1	0	1	
	HIST 106	Sources of African History	3	0	3	INSY 107	Information Technology Today	2	0	2	
	KISW 114	Language Skills in Kiswahili I	3	0	3	POLS 100	Introduction to Government	3	0	3	
	KISW 110	Introduction to the Study of Language	3	0	3	KISW 111	Historical Development of Kiswahili	3	0	3	
						KISW 120	Phonetics and Phonology in Kiswahili	3	0	3	
						EDFO 130	History of Education	2	0	2	
Total			18	0	18	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	KISW 225	Kiswahili Morphology and Syntax	3	0	3	
	HIST 203	Introduction to African History to 1884	3	0	3	HIST 213	Themes in World History to 1500	3	0	3	
	KISW 265	Language Skills in Kiswahili II	3	0	3	HIST 204	Introduction to African History Since 1884	3	0	3	
	POLS 200	Modern Governments in Africa	3	0	3	KISW 285	Second Language Learning	3	0	3	
	Total			17	0	17	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 311	Methods Teaching History	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 316	Methods Teaching Kiswahili	2	1	3	
	POLS 230	Comparative Government in Developed Countries	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	HIST 313	Themes in East African History	3	0	3	HIST 345	Methods of Historical Research	3	0	3	
	KISW 315	Theories and Literary Criticism	3	0	3	KISW 365	Contemporary Kiswahili Novel and Play	3	0	3	
	KISW 350	Oral Literature in Kiswahili	3	0	3	KISW 395	Research Methods in Language and Literature	3	0	3	
	Total			17	1	18	Total			16	2
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	HIST 380	Philosophy of History	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	HIST 440	History of Political Idea	3	0	3	HIST 447	History of International Relations	3	0	3	
	KISW 420	Semantics and Pragmatics in Kiswahili	3	0	3	HIST 421	Imperialism and Nationalism in the Third World	3	0	3	
	KISW 425	Senior Seminar in Kiswahili	3	0	3	KISW 460	Kiswahili Language and Planning	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	EDFO 410	Environmental Education	2	0	2						
Total			19	0	19	Total			18	0	18

Teaching Subjects: 1st... CRE 2nd... HISTORY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	HIST 120	Introduction to Kenyan History	3	0	3	POLS 100	Introduction to Government	3	0	3	
	HIST 106	Sources of African History	3	0	3	RELT 131	African Traditional Religions	3	0	3	
	RELH 114	Introduction History of Christian Church History	3	0	3	RELT 128	Adventist History and Philosophy	3	0	3	
						EDFO 280	Sociology and Comparative Education	3	0	3	
Total			17	0	17	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	RELT 280	Philosophy of Religion	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	HIST 213	Themes in World History to 1500	3	0	3	
	HIST 203	Introduction to African History to 1884	3	0	3	HIST 204	Introduction to African History Since 1884	3	0	3	
	POLS 200	Modern Governments in Africa	3	0	3	RELT 231	Phenomenology of Religion	3	0	3	
	RELB 204	Old Testament Studies	3	0	3	RELT 216	Comparative Religions	3	0	3	
	Total			17	0	17	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 312	Methods Teaching Religious Education	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 311	Methods Teaching History	2	1	3	
	RELT 330	Islamic Studies	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	POLS 230	Comparative Government in Developed Countries	3	0	3	HIST 345	Methods of Historical Research	3	0	3	
	HIST 313	Themes in East African History	3	0	3	HIST 380	Philosophy of History	3	0	3	
	RELB 331	New Testament Studies	3	0	3	RELT 418	New Religious Movements in Africa	3	0	3	
	Total			17	1	18	Total			16	2
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	HIST 440	History of Political Idea	3	0	3	HIST 447	History of International Relations	3	0	3	
	RELT 427	Christian Doctrines	3	0	3	HIST 421	Imperialism and Nationalism in the Third World	3	0	3	
	RELT 435	Issues in Ecumenism	3	0	3	RELT 460	Contemporary Themes in Christian Theology	3	0	3	
	RELT 337	Sociology of Religion	3	0	3	RELT 480	History of the Christian Church in Africa	3	0	3	
						ENGL 106	Speech Communication	1	0	1	
Total			18	0	18	Total			18	0	18

Teaching Subjects: 1st... CRE 2nd... GEOGRAPHY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	GEOG 101	Introduction to Geography	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3	
	GEOG 11	Fundamentals of Physical Geography	3	0	3	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3	
	RELH 114	Introduction History of Christian Church History	3	0	3	RELT 131	African Traditional Religions	3	0	3	
	ENGL 106	Speech Communication	1	0	1	RELT 128	Adventist History and Philosophy	3	0	3	
Total			18	0	18	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 280	Philosophy of Religion	3	0	3	
	GEOG 296	Geomorphological Studies	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3	
	ENVI 298	Hydrological Studies and Water Resources	3	0	3	RELT231	Phenomenology of Religion	3	0	3	
	RELB 204	Old Testament Studies	3	0	3	RELT216	Comparative Religions	3	0	3	
Total			17	0	17	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 313	Methods Teaching Geography	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 312	Methods Teaching Religious Education	2	1	3	
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	GEOG 321	Remote Sensing	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3	
	RELT330	Islamic Studies	3	0	3	RELT337	Sociology of Religion	3	0	3	
	RELB331	New Testament Studies	3	0	3	RELT418	New Religious Movements in Africa	3	0	3	
Total			17	1	18	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3	
	RELT 427	Christian Doctrines	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3	
	RELT435	Issues in Ecumenism	3	0	3	RELT460	Contemporary Themes in Christian Theology	3	0	3	
	GEOG 326	Agricultural Geography	3	0	3	RELT480	History of Christian Church in Africa	3	0	3	
RELB 220	Life and Teachings of Jesus	2	0	2							
Total			18	0	18	Total			17	0	17

Teaching Subjects: 1st... GEOGRAPHY 2nd... KISWAHILI

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER						
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2		
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	1	1	2		
	GEOG 101	Introduction to Geography	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3		
	GEOG 114	Fundamentals of Physical Geography	3	0	3	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3		
	KISW 114	Language Skills in Kiswahili I	3	0	3	KISW 111	Historical Development of Kiswahili	3	0	3		
	KISW 110	Introduction to the Study of Language	3	0	3	KISW 120	Phonetics and Phonology in Kiswahili	3	0	3		
	ENGL 106	Speech Communication	1	0	1	EDFO 130	History of Education	2	0	2		
	Total			19	0	19	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3		
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3		
	GEOG 321	Remote Sensing	3	0	3	KISW 225	Kiswahili Morphology and Syntax	3	0	3		
	GEOG 296	Geomorphological Studies	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3		
	ENVI 298	Hydrological Studies and Water Resources	3	0	3	KISW 285	Second Language Learning	3	0	3		
	KISW 265	Language Skills in Kiswahili II	3	0	3	ENGL 106	Speech Communication	1	0	1		
						INSY 107	Information Technology Today	2	0	2		
	Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 313	Methods Teaching Geography	2	1	3		
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 316	Methods Teaching Kiswahili	2	1	3		
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	EDTE 333	Research Method in Education	3	0	3		
	KISW 315	Theories and Literary Criticism	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3		
	KISW 350	Oral Literature in Kiswahili	3	0	3	KISW 365	Contemporary Kiswahili Novel and Play	3	0	3		
	EDFO 403	Entrepreneurship Education	3	0	3	KISW 395	Research Methods in Language and Literature	3	0	3		
	Total			17	1	18	Total			16	2	18
	Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2		
	EDFO 401	Planning and Economics of Education	3	0	3	RELB 220	Life and Teachings of Jesus	2	0	2		
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3		
	KISW 420	Semantics and Pragmatics in Kiswahili	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3		
	KISW 425	Senior Seminar in Kiswahili	3	0	3	KISW 460	Kiswahili Language and Planning	3	0	3		
	GEOG 326	Agricultural Geography	3	0	3	RELT 207	Christian Beliefs	3	0	3		
						EDPC 244	Educational Guidance and Counseling	2	0	2		
	Total			18	0	18	Total			18	0	18

Teaching Subjects: 1st... CRE 2nd... KISWAHILI

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3		3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	KISW 114	Language Skills in Kiswahili I	3	0	3	KISW 111	Historical Development of Kiswahili	3	0	3	
	KISW 110	Introduction to the Study of Language	3	0	3	KISW 120	Phonetics and Phonology in Kiswahili	3	0	3	
	RELH 114	Introduction History of Christian Church History	3	0	3	RELT 131	African Traditional Religions	3	0	3	
						RELT 128	Adventist History and Philosophy	3	0	3	
Total			17	0	17	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 280	Philosophy of Religion	3	0	3	
	KISW 265	Language Skills in Kiswahili II	3	0	3	KISW 285	Second Language Learning	3	0	3	
	RELB 204	Old Testament Studies	3	0	3	RELT 231	Phenomenology of Religion	3	0	3	
	RELT 330	Islamic Studies	3	0	3	RELT 216	Comparative Religions	3	0	3	
	ENGL 106	Speech Communication	1	0	1						
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 312	Methods Teaching Religious Education	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 316	Methods Teaching Kiswahili	2	1	3	
	KISW 315	Theories and Literary Criticism	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	KISW 350	Oral Literature in Kiswahili	3	0	3	KISW 365	Contemporary Kiswahili Novel and Play	3	0	3	
	RELT 337	Sociology of Religion	3	0	3	KISW 395	Research Methods in Language and Literature	3	0	3	
	RELB 331	New Testament Studies	3	0	3	RELT 418	New Religious Movements in Africa	3	0	3	
Total			17	1	18	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	KISW 420	Semantics and Pragmatics in Kiswahili	3	0	3	KISW 460	Kiswahili Language Planning	3	0	3	
	KISW 425	Senior Seminar in Kiswahili	3	0	3	RELT 460	Contemporary Themes in Chr. Theology	3	0	3	
	RELT 427	Christian Doctrines	3	0	3	KISW 225	Kiswahili Morphology and Syntax	3	0	3	
	RELT 435	Issues in Ecumenism	3	0	3	RELT 480	History of the Christian Church in Africa	3	0	3	
Total			18	0	18	Total			17	0	17

Teaching Subjects: 1st... ENGLISH LANGUAGE 2nd... LITERATURE IN ENGLISH

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	ENGL 114	Introduction to the Description of English	3	0	3	ENGL 148	English Grammar and Usage I	3	0	3	
	LITE 151	Introduction to Literary Appreciation	2	0	2	LITE 154	Introduction to Oral Literature	3	0	3	
	ENGL 130	Introduction to the Study of Language	3	0	3	LITE 210	East African Prose Fiction	3	0	3	
	LITE 165	Stylistics	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	Total			19	0	19	Total			17	1
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	ENGL 218	Morphology and Syntax	3	0	3	
	ENGL 216	Origins and Development of English	3	0	3	LITE 214	East African Drama	3	0	3	
	ENGL 217	Phonetics and Phonology	3	0	3	ENGL 219	English Grammar and Usage II	3	0	3	
	LITE 212	East African Poetry	3	0	3	LITE 260	Children's Literature	3	0	3	
	ENGL 106	Speech Communication	1	0	1						
	Total			18	0	18	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 314	Methods Teaching Engl. Language	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 315	Methods Teaching Lit. in English	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Method in Education	3	0	3	
	LITE 346	Introduction to Literary Theory and Criticism	3	0	3	LITE 348	European Literature	3	0	3	
	ENGL 302	Language Policy and Issues	3	0	3	ENGL 305	English Structure and Semantics	3	0	3	
	LITE 347	South African Literature	3	0	3	ENGL 347	Second Language Acquisition	3	0	3	
	Total			16	1	17	Total			16	2
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	2	0	2	
	LITE 456	Caribbean Literature	3	0	3	ENGL 465	Principles of Creative Writing	3	0	3	
	ENGL 469	Research Project/Seminar	3	0	3	ENGL 463	Psycholinguistics	3	0	3	
	ENGL 456	Varieties of English	3	0	3	LITE 449	Modern Poetry	3	0	3	
	LITE 350	African American Literature	3	0	3	LITE 450	Theatre Arts	3	0	3	
	Total			18	0	18	Total			16	0

Teaching Subjects: 1st... HOME SCIENCE 2nd... HISTORY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	EDF0260	Philosophy of Education	2	0	2	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life skills	1	1	2	
	ENGL105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1	
	HOSC116	Creative Needlework	1	0	1	INSY107	Information Technology Today	2	0	2	
	HOSC120	Introduction to Food Preparation	2	1	3	HOSC150	Clothing Construction I	2	1	3	
	HIST120	Introduction to Kenyan History	3	0	3	HOSC170	Resource Management in the Family	3	0	3	
	HIST106	Sources of African History	3	0	3	POLS100	Introduction to Government	3	0	3	
						EDPC244	Educational Guidance and Counseling	2	0	2	
Total			17	1	18	Total			16	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE255	Principles and Methods of Teaching	3	0	3	
	EDPC238	Human Growth and Development	3	0	3	EDFO280	Sociology and Comparative Education	3	0	3	
	HOSC216	Clothing Construction II	1	0	1	HOSC235	Pattern Drafting	3	0	3	
	HOSC230	Nutrition and Health	3	0	3	HOSC250	Child Development and Growth	3	0	3	
	HIST 203	Introduction to African History to 1884	3	0	3	HIST213	Themes in World History to 1500	3	0	3	
	POLS200	Modern Governments in Africa	3	0	3	HIST204	Introduction to African History Since 1884	3	0	3	
	RELB220	Life and Teachings of Jesus	2		2						
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE301	Educational Communication and Technology	2	1	3	EDTM311	Methods of Teaching History and Government	2	1	3	
	EDTE326	Educational Measurement and Evaluation	3	0	3	EDTM323	Methods of Teaching Home Science	2	1	3	
	HOSC300	Family Living	2	0	2	HOSC319	Design for Living	3	0	3	
	HOSC318	Personal Hygiene and Grooming	3	0	3	HOSC330	Meal Preparation and Management	3	0	3	
	POLS230	Comparative Government in Developed Countries	3	0	3	HIST345	Methods of Historical Research	3	0	3	
	HIST313	Themes in East African History	3	0	3	HIST380	Philosophy of History	3	0	3	
						RELB 220	Life and Teachings of Jesus	2	0	2	
Total			16	1	17	Total			18	2	20
Inter-Semester					EDTE 399	Teaching Practice in Secondary School			6	0	6
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO400	Educational Policy and Management	3	0	3	EDFO403	Entrepreneurship Education	3	0	3	
	EDFO401	Planning and Economics of Education	3	0	3	HOSC415	Tailoring	2	1	3	
	HOSC450	Food Demonstration Skills	2	0	2	HOSC455	Quantity Food Management and Production	3	0	3	
	HOSC400	Public Health and Community Nutrition	3	0	3	HIST447	History of International Relations	3	0	3	
	HIST440	History of Political Idea	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	EDTE333	Research Methods in Education	3	0	3	HIST421	Imperialism and Nationalism in the Third World	3	0	3	
	EDFO410	Environmental Education	2	0	2						
Total			19	0	19	Total			17	1	18

Teaching Subjects: 1st... HOME SCIENCE 2nd... KISWAHILI

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	EDFO260	Philosophy of Education	2	0	2	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life skills	1	1	2	
	ENGL105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1	
	HOSC116	Creative Needlework	1	0	1	INSY107	Information Technology Today	2	0	2	
	HOSC120	Introduction to Food Preparation	2	1	3	HOSC150	Clothing Construction I	2	1	3	
	KISW114	Language Skills in Kiswahili I	3	0	3	HOSC170	Resource Management in the Family	3	0	3	
	KISW110	Introduction to the Study of Language	3	0	3	KISW111	Historical Development of Kiswahili	3	0	3	
						KISW120	Phonetics and Phonology in Kiswahili	3	0	3	
Total			17	1	18	Total			17	2	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE255	Principles and Methods of Teaching	3	0	3	
	EDPC238	Human Growth and Development	3	0	3	EDFO280	Sociology and Comparative Education	3	0	3	
	EDPC244	Educational Guidance and Counseling	2	0	2	HOSC235	Pattern Drafting	3	0	3	
	HOSC216	Clothing Construction II	1	0	1	HOSC250	Child Development and Growth	3	0	3	
	HOSC230	Nutrition and Health	3	0	3	KISW225	Kiswahili Morphology and Syntax	3	0	3	
	KISW265	Language Skills in Kiswahili II	3	0	3	KISW285	Second Language Learning	3	0	3	
	RELB220	Life and Teachings of Jesus	2	0	2						
	Total			17	0	17	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE301	Educational Communication and Technology	2	1	3	EDTM316	Methods of Teaching Kiswahili	2	1	3	
	EDTE326	Educational Measurement and Evaluation	3	0	3	EDTM323	Methods of Teaching Home Science	2	1	3	
	HOSC300	Family Living	2	0	2	EDTE333	Research Methods in Education	3	0	3	
	HOSC318	Personal Hygiene and Grooming	3	0	3	HOSC319	Design for Living	3	0	3	
	KISW315	Theories and Literary Criticism	3	0	3	HOSC330	Meal Preparation and Management	3	0	3	
	KISW350	Oral Literature in Kiswahili	3	0	3	KISW365	Contemporary Kiswahili Novel and Play	3	0	3	
	Total			16	1	17	Total			16	2
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO400	Educational Policy and Management	3	0	3	EDFO403	Entrepreneurship Education	3	0	3	
	EDFO401	Planning and Economics of Education	3	0	3	HOSC415	Tailoring	2	1	3	
	HOSC450	Food Demonstration Skills	2	0	2	HOSC455	Quantity Food Management and Production	3	0	3	
	HOSC400	Public Health and Community Nutrition	3	0	3	KISW460	Kiswahili Language and Planning	3	0	3	
	KISW420	Semantics and Pragmatics in Kiswahili	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	KISW425	Kiswahili Poetry	3	0	3	KISW395	Research Methods in Language and Literature	3	0	3	
	EDFO410	Environmental Education	2	0	2						
Total			19	0	19	Total			17	1	18

Teaching Subjects: 1st... HOME SCIENCE 2nd... CRE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	HOSC 116	Creative Needlework	1	0	1	INSY 107	Information Technology Today	2	0	2	
	HOSC 120	Introduction to Food Preparation	2	1	3	HOSC 150	Clothing Construction I	2	1	3	
	RELH 114	Introduction History of Christian Church History	3	0	3	HOSC 170	Resource Management in the Family	3	0	3	
						RELT 131	African Traditional Religions	3	0	3	
						RELT 128	Adventist History and Philosophy	3	0	3	
						RELT 216	Comparative Religions	3	0	3	
Total			14	1	15	Total			20	2	22
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE255	Principles and Methods of Teaching	3	0	3	
	EDPC238	Human Growth and Development	3	0	3	EDFO280	Sociology and Comparative Education	3	0	3	
	EDPC244	Educational Guidance and Counseling	2	0	2	RELT280	Philosophy of Religion	3	0	3	
	HOSC216	Clothing Construction II	1	0	1	RELT231	Phenomenology of Religion	3	0	3	
	HOSC230	Nutrition and Health	3	0	3	HOSC235	Pattern Drafting	3	0	3	
	RELB204	Old Testament Studies	3	0	3	HOSC250	Child Development and Growth	3	0	3	
	RELT330	Islamic Studies	3	0	3						
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE301	Educational Communication and Technology	2	1	3	EDTM312	Methods of Teaching Religion	2	1	3	
	EDTE326	Educational Measurement and Evaluation	3	0	3	EDTM323	Methods of Teaching Home Science	2	1	3	
	HOSC300	Family Living	2	0	2	EDTE333	Research Methods in Education	3	0	3	
	HOSC318	Personal Hygiene and Grooming	3	0	3	HOSC319	Design for Living	3	0	3	
	RELB331	New Testament Studies	3	0	3	RELT418	New Religious Movements in Africa	3	0	3	
						HOSC330	Meal Preparation and Management	3	0	3	
Total			13	1	14	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO400	Educational Policy and Management	3	0	3	EDFO403	Entrepreneurship Education	3	0	3	
	EDFO401	Planning and Economics of Education	3	0	3	EDFO410	Environmental Education	2	0	2	
	HOSC450	Food Demonstration Skills	2	0	2	HOSC415	Tailoring	2	1	3	
	RELT427	Christian Doctrines	3	0	3	HOSC 455	Quantity Food Management and Production	3	0	3	
	RELT435	Issues in Ecumenism	3	0	3	RELT460	Contemporary Themes in Christian Theology	3	0	3	
	RELT337	Sociology of Religion	3	0	3	RELT480	History of the Christian Church in Africa	3	0	3	
	HOSC400	Public Health and Community Nutrition	3	0	3						
Total			20	0	20	Total			16	1	17

Teaching Subjects: 1st... MUSIC (CONCENTRATION IN VOICE).....2nd.....

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	MUPF 131	Voice I	1	0	1	INSY 107	Information Technology Today	2	0	2	
	MUPF 101	Piano I	1	0	1	MUPF 132	Voice II	1	0	1	
	MUTH 160	Music Theory and Composition I	1	0	1	MUPF 102	Piano II	1	0	1	
	MUPF 171	Musicianship I	2	0	2	MUTH 161	Music Theory and Composition II	2	0	2	
		(2 nd Teaching Area course)	3	0	3	MUPF 172	Musicianship II	2	0	2	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
						(2 nd Teaching Area course)	3	0	3		
Total			19	0	19	Total			18	1	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	MUPF 231	Voice III	1	0	1	MUPF232	Voice IV	1	0	1	
	MUPF 241	Strings	1	0	1	MUPF 242	Woodwinds	1	0	1	
	MUTH 260	Music Theory and Composition III	2	0	2	MUTH 261	Music Theory and Composition IV	2	0	2	
	MUHL 281	Survey of Music History and Literature I	2	0	2	MUHL 282	Survey of Music History and Literature II	2	0	2	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 339	Special Methods in Teaching Music	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM XXX	Special Methods in Teaching 2nd Teaching Subject	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Methods in Education	3	0	3	
	MUPF 331	Voice V	1	0	1	MUPF 342	Percussion	1	0	1	
	MUPF 341	Brass	1	0	1	MUAF 314	African Music	2	0	2	
	MUTH 360	Music Theory and Composition V	2	0	2	MUED 325	Introduction to Music Education	2	0	2	
	MUHL 381	Survey of Music History and Literature III	2	0	2		(2 nd Teaching Area course)	3		3	
		(2 nd Teaching Area course)	3		3		(2 nd Teaching Area course)	3		3	
Total			16	1	17	Total			18	2	20
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 410	Environmental Education	2	0	2	
	MUED 491	Conducting I	2	0	2	MUED 492	Choral Conducting II	2	0	2	
	MUAF 315	Kenyan Music	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2		(2nd Teaching Area course)	3	0	3	
	MUPF 355	Choral Ensemble	1	0	1		(2nd Teaching Area course)	3	0	3	
		(2 nd Teaching Area course)	3	0	3						
		(2 nd Teaching Area course)	3	0	3						
Total			19	0	19	Total			16	0	16

Teaching Subjects: 1st... MUSIC (CONCENTRATION IN PIANO)..... 2nd.....

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	MUPF 131	Voice I	1	0	1	INSY 107	Information Technology Today	2	0	2	
	MUPF 101	Piano I	1	0	1	MUPF 132	Voice II	1	0	1	
	MUTH 160	Music Theory and Composition I	1	0	1	MUPF 102	Piano II	1	0	1	
	MUPF 171	Musicianship I	2	0	2	MUTH 161	Music Theory and Composition II	2	0	2	
		(2 nd Teaching Area course)	3	0	3	MUPF 172	Musicianship II	2	0	2	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
						(2 nd Teaching Area course)	3	0	3		
Total			19	0	19	Total			18	1	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	MUPF 201	Piano III	1	0	1	MUPF 202	Piano IV	1	0	1	
	MUPF 241	Strings	1	0	1	MUPF 242	Woodwinds	1	0	1	
	MUTH 260	Music Theory and Composition III	2	0	2	MUTH 261	Music Theory and Composition IV	2	0	2	
	MUHL 281	Survey of Music History and Literature I	2	0	2	MUHL 282	Survey of Music History and Literature II	2	0	2	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 339	Special Methods in Teaching Music	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM XXX	Special Methods in Teaching 2nd Teaching Subject	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Methods in Education	3	0	3	
	MUPF 301	Piano V	1	0	1	MUPF 342	Percussion	1	0	1	
	MUPF 341	Brass	1	0	1	MUAF 314	African Music	2	0	2	
	MUTH 360	Music Theory and Composition V	2	0	2	MUED 325	Introduction to Music Education	2	0	2	
	MUHL 381	Survey of Music History and Literature III	2	0	2		(2 nd Teaching Area course)	3	0	3	
		(2 nd Teaching Area course)	3	0	3		(2 nd Teaching Area course)	3	0	3	
Total			16	1	17	Total			18	2	20
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 410	Environmental Education	2	0	2	
	MUED 491	Conducting I	2	0	2	MUED 492	Choral Conducting II	2	0	2	
	MUAF 315	Kenyan Music	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2		(2nd Teaching Area course)	3	0	3	
	MUPF 365	Instrumental Ensemble	1	0	1		(2nd Teaching Area course)	3	0	3	
		(2 nd Teaching Area course)	3	0	3						
		(2 nd Teaching Area course)	3	0	3						
Total			19	0	19	Total			16	0	16

Teaching Subjects: 1st... CHEMISTRY 2nd... AGRICULTURE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	CHEM 120	Fundamentals of Chemistry	2	1	3	INSY 107	Information Technology Today	2	0	2	
	CHEM 130	Introduction to Organic Chemistry	2	1	3	CHEM 154	Introduction to Analytical Chemistry	2	1	3	
	AGRI 101	Crop Production Skills	1	0	1	CHEM 171	Organic Functional groups	2	1	3	
	AGRI 112	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and mechanization	2	1	3	
						AGRI 116	Agriculture Ecology Trip	1	0	1	
						AGRI 102	Animal Production Skills	1	0	1	
Total			15	2	17	Total			14	4	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	CHEM 231	Physical Chemistry I	2	1	3	RELT 207	Christian Beliefs	3	0	3	
	CHEM 205	Atomic Structure and Bonding	3	0	3	CHEM 235	Chemical Analysis and Structural Determination	2	1	3	
	CPSC 213	Introduction to Soils	2	1	3	CHEM 271	Chemical Thermodynamics and Phase equilibria	3	0	3	
	ANSC 211	Introduction to Animal Science	2	1	3	CPSC 279	Crop Physiology	2	1	3	
Total			15	3	18	Total			16	2	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 324	Methods Teaching Chemistry	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 322	Methods Teaching Agriculture	2	1	3	
	AGRI 335	Mushroom Production	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	CHEM 394	Heterocyclic chemistry and Stereochemistry	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 345	Synthetic Organic Chemistry	2	1	3	
	CPSC 314	Crop Production I	2	1	3	CPSC 325	Crop Production II	2	1	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2						
Total			14	4	18	Total			14	4	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	CHEM 402	Transition metals Chemistry	2	1	3	CHEM 425	Electrochemistry	3	0	3	
	CHEM 405	Industrial Chemistry I	2	1	3	AGEC 413	Management of Agriculture	2	1	3	
	ANSC 411	Poultry Science	2	1	3	ANSC 442	Dairy Production	2	1	3	
	CPSC 412	Crop Protection	2	1	3	AGEC 345	Agricultural Economics	3	0	3	
Total			14	4	18	Total			15	2	17

Teaching Subjects: 1st... BIOLOGY 2nd... AGRICULTURE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	ENG 106	Speech Communication	1	0	1	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	BIOL 151	Foundations of Biology I/ General Genetics	3	0	3	INSY 107	Information Technology Today	1	0	1	
	BIOL 152	Foundations of Biology II/ General Botany	3	0	3	BIOL 153	Foundations of Biology III/ Invertebrate and Vertebrate Zoology	3	0	3	
	AGRI101	Crop Production Skills	1	0	1	BIOL 176	Introduction to Microbiology	3	0	3	
	AGRI 108	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	3	0	3	
						AGRI 116	Agricultural Ecology Trip	1	0	1	
						AGRI 102	Animal Production Skills	1	0	1	
Total			17	0	17	Total			17	0	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	BIOL 296	History and Philosophy of Biology	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	BIOL 290	Fundamentals of Cell and Molecular Biology	4	0	4	RELT 207	Christian Beliefs	3	0	3	
	CPSC 213	Introduction to Soils	3	0	3	BIOL 286	General Ecology	3	0	3	
	ANSC 211	Introduction to Animal Science	3	0	3	BIOL 285	Biostatistics	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	CPSC 279	Crop Physiology	3	0	3	
	Total			19	0	19	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 322	Methods Teaching Agriculture	2	1	3	
	AGRI 335	Mushroom Production	2	0	2	EDTM 321	Methods Teaching Biology	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Methods in Education	3	0	3	
	BOTN 374	Systematic Botany	3	0	3	ZOOL 360	Parasitology and Immunology	3	0	3	
	CPSC 314	Crop Production I	3	0	3	BOTN 432	Plant Physiology	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	CPSC 325	Crop Production II	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3						
Total			17	1	18	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	ZOOL 448	Developmental Biology	3	0	3	ZOOL 464	Systems Physiology	4	0	4	
	ANSC 411	Poultry Science	3	0	3	AGEC 413	Management of Agriculture	3	0	3	
	CPSC 412	Crop Protection	3	0	3	ANSC 442	Dairy Production	3	0	3	
						AGEC 345	Agricultural Economics	3	0	3	
Total			15	0	15	Total			18	0	18

Teaching Subjects: 1st... HOME SCIENCE 2nd... AGRICULTURE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	1	1	2	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	HOSC 116	Creative Needle Work	1	0	1	INSY 107	Information Technology Today	2	0	2	
	HOSC 120	Introduction to Food Preparation	2	1	3	HOSC 150	Clothing Construction I	2	1	3	
	AGRI 101	Crop Production Skills	1	0	1	HOSC 170	Resource Management in the Family	3	0	3	
	AGRI 108	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3	
						AGRI 116	Agriculture Ecology Trip	1	0	1	
						AGRI 102	Animal Production Skills	1	0	1	
Total			14	1	15	Total			15	3	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	HOSC 216	Clothing Construction II	1	0	1	HOSC 235	Pattern Drafting	3	0	3	
	HOSC 230	Nutrition and Health	3	0	3	HOSC 250	Child Development and Growth	3	0	3	
	CPSC 213	Introduction to Soils	2	1	3	CPSC 279	Crop Physiology	2	1	3	
	ANSC 211	Introduction to Animal Science	2	1	3						
Total			16	2	18	Total			17	1	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	2	1	3	EDTM 322	Methods of Teaching Agriculture	2	1	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 323	Methods of Teaching Home Science	2	1	3	
	AGRI 335	Mushroom Production	1	1	2	EDTE 333	Research Methods in Education	3	0	3	
	HOSC 300	Family Living	2	0	2	HOSC 319	Design for Living	3	0	3	
	HOSC 318	Personal Hygiene and Grooming	3	0	3	HOSC 330	Meal Preparation and Management	3	0	3	
	CPSC 314	Crop Production I	2	1	3	CPSC 325	Crop Production II	2	1	3	
	AGEC 345	Agricultural Economics	3	0	3	RELB 220	Life and Teachings of Jesus	2	0	2	
Total			16	3	19	Total			17	3	20
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	HOSC 450	Food Demonstration Skills	2	0	2	HOSC 415	Tailoring	2	1	3	
	HOSC 400	Public Health and Community Nutrition	3	0	3	HOSC 455	Quantity Food Management and Production	3	0	3	
	ANSC 411	Poultry Science	2	1	3	AGEC 413	Management of Agriculture	2	1	3	
	CPSC 412	Crop Protection	2	1	3	ANSC 442	Dairy Production	2	1	3	
						RELB 220	Life and Teachings of Jesus	2	0	2	
Total			15	2	17	Total			16	3	19

Teaching Subjects: 1st... CHEMISTRY 2nd... MATHEMATICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	CHEM 120	Fundamentals of Chemistry	2	1	3	CHEM 154	Introduction to Analytical Chemistry	2	1	3	
	CHEM 130	Introduction to Organic Chemistry	2	1	3	CHEM 171	Organic Functional groups	2	1	3	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 150	Linear Algebra I	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3	
						EDFO 130	History of Education	2	0	2	
Total			16	2	18	Total			16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	CHEM 231	Physical Chemistry I	3	0	3	CHEM 235	Chemical Analysis and Structural Determination	2	1	3	
	CHEM 205	Atomic Structure and Bonding	3	0	3	MATH 248	Ordinary Differential Equations I	3	0	3	
	MATH 227	Integral Calculus	3	0	3	MATH 274	Complex Analysis I	3	0	3	
	MATH 240	Real Analysis I	3	0	3	ENGL 106	Speech Communication	1	0	1	
						INSY 107	Information Technology Today	2	0	2	
Total			18	0	18	Total			17	1	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 324	Methods Teaching Chemistry	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 325	Methods Teaching Mathematics	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Method in Education	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 394	Heterocyclic chemistry and stereochemistry	3	0	3	
	MATH	Pure or Applied or STAT	3	0	3	MATH	Pure or Applied or Stat	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	CHEM 271	Chemical Thermodynamics and Phase Equilibria	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2						
Total			18	1	19	Total			18	0	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	CHEM 402	Transition metals Chemistry	2	1	3	CHEM 425	Electrochemistry	3	0	3	
	CHEM 405	Industrial Chemistry I	2	1	3	MATH	Pure or Applied or Stat	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	CHEM 345	Synthetic Organic Chemistry	2	1	3	
Total			16	2	18	Total			16	1	17
Electives (Optional)											
	CHEM 384	Coordination Chemistry	3	0	3	CHEM 419	Environmental Chemistry	3	0	3	

Teaching Subjects: 1st... MATHEMATICS 2nd... PHYSICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 150	Linear Algebra I	3	0	3
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3
	PHYS 160	Mechanics	3	0	3	PHYS 170	Geometric Optics	2	1	3
	PHYS 180	Introduction to Quantum Physics	3	0	3	PHYS 165	Heat and Thermodynamics	2	1	3
	Total		18	0	18	EDFO 130	History of Education	2	0	2
2nd	Code	Course Title	T	L	TC	Total		16	2	18
	EDTE 210	Curriculum Development	3	0	3	Code	Course Title	T	L	TC
	EDPC 238	Human Growth and Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3
	MATH 227	Integral Calculus	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3
	MATH 240	Real Analysis I	3	0	3	MATH 248	Ordinary Differential Equations I	3	0	3
	PHYS 215	Waves and Oscillations	2	1	3	MATH 274	Complex Analysis I	3	0	3
	PHYS 231	Electricity and Magnetism I	2	1	3	PHYS 232	Electricity and Magnetism II	3	0	3
	Total		16	2	18	ENGL 106	Speech Communication	1	0	1
3rd	Code	Course Title	T	L	TC	INSY 107	Information Technology Today	2	0	2
	EDTE 301	Educational Communication and Technology	3	0	3	Total		18	0	18
	EDTE 326	Educational Measurement and Evaluation	3	0	3	Code	Course Title	T	L	TC
	EDPC 244	Educational Guidance and Counseling	2	0	2	EDTM 325	Methods Teaching Mathematics	3	0	3
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTM 326	Methods Teaching Physics	3	0	3
	MATH	Pure or Applied or Stat	3	0	3	EDTE 333	Research Method in Education	3	0	3
	PHYS 300	Properties of Matter	3	0	3	MATH	Pure or Applied or Stat	3	0	3
	MATH	Pure or Applied or Stat	3	0	3	PHYS 345	Electronics	2	1	3
4th	Total		19	0	19	PHYS 255	Quantum Mechanics	3	0	3
	Inter-Semester					Total		17	1	18
						EDTE 399	Teaching Practice in Secondary School	6	0	6
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3
	MATH	Pure or Applied or Statistics	3	0	3	MATH	Pure or Applied or Statistics	3	0	3
	MATH	Pure or Applied or Statistics	3	0	3	PHYS 431	Environmental and Renewable Energy Physics I	3	0	3
Electives (Optional)	PHYS 410	Nuclear Physics	3	0	3	RELT 207	Christian Beliefs	3	0	3
	PHYS 415	Solid State Physics	3	0	3	PHYS 335	Physical Optics	3	0	3
	Total		18	0	18	Total		17	0	17
	PHYS 315	Atomic Physics	3		3					
	PHYS 421	Electromagnetic Theory I	3	0	3					

Teaching Subjects: 1st... COMPUTER 2nd... MATHEMATICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	CSED 118	Introduction to Computers	2	0	2	COSC 161	Programming in C	3	0	3	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	INSY 136	Microcomputer Applications	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 150	Linear Algebra I	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	MATH 127	Differential Calculus	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDFO 130	History of Education	2	0	2	
Total			18	0	18	Total			18	0	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	INSY 211	Database Management Systems	3	0	3	COSC 261	Operating Systems	3	0	3	
	COSC 228	Computer Organizations	3	0	3	COSC 262	Data Structures and Algorithms	3	0	3	
	MATH 227	Integral Calculus	3	0	3	MATH 248	Ordinary Differential Equations I	3	0	3	
	MATH 240	Real Analysis I	3	0	3	MATH 274	Complex Analysis I	3	0	3	
	Total			18	0	18	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 325	Methods Teaching Mathematics	3	0	3	
	COSC 337	Networks and Telecommunications	3	0	3	EDTM 338	Methods Teaching Computer Science	3	0	3	
	INSY 314	Web Designs and Internet Technologies	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	COSC 343	Foundations of Human-Computer Interaction	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	COSC 372	Object Oriented Programming	3	0	3	
	EDTE 301	Educational Communication and Technology	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
Total			18	0	18	Total			18	0	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 410	Environmental Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	INSY 443	Research Methods in IT	2	0	2	INSY 497	IT Project Management	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	MATH	Pure or Applied or Stat	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	ENGL 106	Speech Communication	1	0	1	COSC 498	Senior Project	2	0	2	
	INSY 481	Systems Analysis and Design	3	0	3	Total			17	0	17
Total			18	0	18	Total			17	0	17

Teaching Subjects: 1st... MATHEMATICS 2nd...BIOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 150	Linear Algebra I	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3	
	BIOL 151	Foundations of Biology I/ General Genetics	2	1	3	BIOL 153	Foundations of Biology III/ Invert and Vertebrate Zoology	2	1	3	
	BIOL 152	Foundations of Biology II/ General Botany	2	1	3	BIOL 176	Introduction to Microbiology	2	1	3	
						EDFO 130	History of Education	2	0	2	
Total			16	2	18	Total			16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 238	Human Growth and Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	MATH 227	Integral Calculus	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	MATH 240	Real Analysis I	3	0	3	ENGL 106	Speech Communication	1	0	1	
	BIOL 296	History and Philosophy of Biology	3	0	3	MATH 248	Ordinary Differential Equations I	3	0	3	
	BIOL 290	Fund of Cell and Molecular Biology	3	1	4	MATH 274	Complex Analysis I	3	0	3	
	EDTE 210	Curriculum Development	3	0	3	INSY 107	Information Technology Today	2	0	2	
						BIOL 285	Biostatistics	3	0	3	
Total			18	1	19	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 325	Methods Teaching Mathematics	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 321	Methods Teaching Biology	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
	BOTN 374	Systematic Botany	2	1	3	BOTN 432	Plant Physiology	2	1	3	
						BIOL 286	General Ecology	2	1	3	
Total			14	1	15	Total			16	2	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	ZOOL 464	Systems Physiology	3	1	4	
	ZOOL 448	Developmental Biology	2	1	3	EDPC 244	Educational Guidance and Counseling	2	0	2	
	ZOOL 360	Parasitology and Immunology	2	1	3	RELB 220	Life and Teachings of Jesus	2	0	2	
					RELT 207	Christian Beliefs	3	0	3		
Total			16	2	18	Total			18	1	19

Teaching Subjects: 1st... MATHEMATICS 2nd... GEOGRAPHY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 150	Linear Algebra I	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3	
	GEOG 101	Introduction to Geography	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3	
	GEOG 114	Fundamentals of Physical Geography	3	0	3	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3	
						EDFO 130	History of Education	2	0	2	
Total			18	0	18	Total			18	0	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	MATH 227	Integral Calculus	3	0	3	MATH 248	Ordinary Differential Equations I	3	0	3	
	MATH 240	Real Analysis I	3	0	3	MATH 274	Complex Analysis I	3	0	3	
	GEOG 296	Geomorphological Studies	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3	
	ENVI 298	Hydrological Studies and Water resources	3	0	3	ENGL 106	Speech Communication	1	0	1	
						INSY 107	Information Technology Today	2	0	2	
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 325	Methods Teaching Mathematics	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 313	Methods Teaching Geography	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	GEOG 321	Remote Sensing	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3	
	Total			18	0	18	Total			18	0
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3	
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3	
	GEOG 326	Agricultural Geography	3	0	3	EDPC 244	Educational Guidance and Counseling	2	0	2	
						RELB 220	Life and Teachings of Jesus	2	0	2	
Total			18	0	18	Total			18	0	18

Teaching Subjects: 1st... CHEMISTRY 2nd...BIOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	CHEM 120	Fundamentals of Chemistry	2	1	3	CHEM 154	Introduction to Analytical Chemistry	2	1	3	
	CHEM 130	Introduction to Organic Chemistry	2	1	3	CHEM 171	Organic Functional groups	2	1	3	
	BIOL 151	Foundations of Biology I/ General Genetics	2	1	3	BIOL 153	Foundations of Biology III/ Invert and Vertebrate Zoology	2	1	3	
	BIOL 152	Foundations of Biology II/ General Botany	2	1	3	BIOL 176	Introduction to Microbiology	2	1	3	
	Total			14	4	18	Total			14	4
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDFO 280	Sociology and Comparative Education	3	0	3	
	CHEM 231	Physical Chemistry I	2	1	3	ENGL 106	Speech Communication	1	0	1	
	CHEM 205	Atomic Structure and Bonding	3	0	3	CHEM 235	Chemical Analysis and Structural Determination	2	1	3	
	BIOL 296	History and Philosophy of Biology	3	0	3	CHEM 271	Chemical Thermodynamics and Phase equilibria	3	0	3	
	BIOL 290	Fund of Cell and Molecular Biology	3	1	4	INSY 107	Information Technology Today	2	0	2	
Total			16	2	18	Total			17	1	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 324	Methods Teaching Chemistry	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 321	Methods Teaching Biology	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	EDTE 333	Research Method in Education	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	CHEM 394	Heterocyclic chemistry and stereochemistry	2	1	3	
	BOTN 374	Systematic Botany	2	1	3	CHEM 345	Synthetic Organic Chemistry	2	1	3	
	EDFO 403	Entrepreneurship Education	3	0	3	ZOOL 360	Parasitology and Immunology	2	1	3	
Total			16	2	18	Total			15	3	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDPC 244	Educational Guidance and Counseling	2	0	2	
	CHEM 402	Transition metals Chemistry	2	1	3	CHEM 425	Electrochemistry	3	0	3	
	CHEM 405	Industrial Chemistry I	2	1	3	ZOOL 464	Systems Physiology	4	0	4	
	ZOOL 448	Developmental Biology	2	1	3	RELT 207	Christian Beliefs	3	0	3	
	BOTN 432	Plant Physiology	2	1	3	BIOL 286	General Ecology	2	1	3	
	Total			14	4	18	Total			16	1
Electives (Optional)											
	CHEM 384	Coordination Chemistry	3	0	3	CHEM 419	Environmental Chemistry	3	0	3	

Teaching Subjects: 1st... CHEMISTRY 2nd... PHYSICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	CHEM 120	Fundamentals of Chemistry	2	1	3	CHEM 154	Introduction to Analytical Chemistry	2	1	3	
	CHEM 130	Introduction to Organic Chemistry	2	1	3	CHEM 171	Organic Functional groups	2	1	3	
	PHYS 160	Mechanics	3	0	3	PHYS 170	Geometric Optics	2	1	3	
	PHYS 180	Introduction to Quantum Physics	3	0	3	PHYS 165	Heat and Thermodynamics	2	1	3	
						EDFO 130	History of Education	2	0	2	
Total			16	2	18	Total			14	4	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	CHEM 231	Physical Chemistry I	2	1	3	ENGL 106	Speech Communication	1	0	1	
	CHEM 205	Atomic Structure and Bonding	3	0	3	CHEM 235	Chemical Analysis and Structural Determination	2	1	3	
	PHYS 215	Waves and Oscillations	2	1	3	INSY 107	Information Technology Today	2	0	2	
	PHYS 231	Electricity and Magnetism I	2	1	3	PHYS 232	Electricity and Magnetism II	3	0	3	
						PHYS 255	Quantum Mechanics	3	0	3	
Total			15	3	18	Total			17	1	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 324	Methods Teaching Chemistry	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 326	Methods Teaching Physics	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Method in Education	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	0	2	CHEM 394	Heterocyclic Chemistry and Stereochemistry	3	0	3	
	PHYS 300	Properties of Matter	3	0	3	CHEM 271	Chemical Thermodynamics and Phase Equilibria	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2						
	EDFO 410	Environmental Education	2	0	2						
Total			17	0	17	Total			15	0	15
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	PHYS 431	Environmental and Renewable Energy Physics I	3	0	3	
	CHEM 402	Transition metals Chemistry	2	1	3	CHEM 425	Electrochemistry	2	1	3	
	CHEM 405	Industrial Chemistry I	2	1	3	RELT 207	Christian Beliefs	3	0	3	
	PHYS 410	Nuclear Physics	3	0	3	PHYS 335	Physical Optics	3	0	3	
	PHYS 415	Solid State Physics	3	0	3	CHEM 345	Synthetic Organic Chemistry	2	1	3	
Total			16	2	18	Total			16	2	18
Electives (Optional)											
	CHEM 384	Coordination Chemistry	3	0	3	CHEM 419	Environmental Chemistry	3	0	3	
	PHYS 315	Atomic Physics	3	0	3	PHYS 421	Electromagnetic Theory I	3	0	3	

Teaching Subjects: 1st... COMPUTER 2nd... PHYSICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER						
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2		
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2		
	CSED 118	Introduction to Computers	2	0	2	INSY 136	Microcomputer Applications	3	0	3		
	PHYS 160	Mechanics	3	0	3	COSC 161	Programming in C	3	0	3		
	PHYS 180	Introduction to Quantum Physics	3	0	3	PHYS 170	Geometric Optics	2	1	3		
	RELB 220	Life and Teachings of Jesus	2	0	2	PHYS 165	Heat and Thermodynamics	2	1	3		
	ENGL 106	Speech Communication	1	0	1	EDFO 130	History of Education	2	0	2		
	Total			17	0	17	Total			16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3		
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3		
	INSY 211	Database Management Systems	3	0	3	RELT 207	Christian Beliefs	3	0	3		
	COSC 228	Computer Organization	3	0	3	COSC 261	Operating Systems	3	0	3		
	PHYS 215	Waves and Oscillations	2	1	3	COSC 262	Data Structures and Algorithms	3	0	3		
	PHYS 231	Electricity and Magnetism I	2	1	3	PHYS 232	Electricity and Magnetism II	3	0	3		
	Total			16	2	18	Total			18	0	18
	3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
EDTE 301		Educational Communication and Technology	3	0	3	EDTM 326	Methods Teaching Physics	3	0	3		
EDTE 326		Educational Measurement and Evaluation	3	0	3	EDTM 338	Methods Teaching Computer Science	3	0	3		
EDTE 333		Research Method in Education	3	0	3	COSC 372	Object Oriented Programming	3	0	3		
INSY 314		Web Design and Internet Technologies	3	0	3	PHYS 345	Electronics	2	1	3		
COSC 337		Networks and Telecom	3	0	3	PHYS 255	Quantum Mechanics	3	0	3		
PHYS 300		Properties of Matter	3	0	3	COSC 343	Foundations of Human Computer Interaction	3	0	3		
Total			18	0	18	Total			17	1	18	
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6			
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	3	0	3		
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3		
	INSY 443	Research Methods in IT	2	0	2	INSY 497	IT Project Management	3	0	3		
	PHYS 410	Nuclear Physics	2	1	3	PHYS 431	Environmental and Renewable Energy Physics I	3	0	3		
	PHYS 415	Solid State Physics	3	0	3	PHYS 335	Physical Optics	3	0	3		
	EDPC 244	Educational Guidance and Counseling	2	0	2	COSC 498	Senior Project	2	0	2		
	INSY 481	Systems Analysis and Design	3	0	3							
	Total			18	1	19	Total			17	0	17
Electives (Optional)												
	PHYS 315	Atomic Physics	3	0	3	PHYS 421	Electromagnetic Theory I	3	0	3		

Teaching Subjects: 1st... GEOGRAPHY 2nd... BIOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	GEOG 101	Introduction to Geography	3	0	3	EDFO 130	History of Education	2	0	2	
	GEOG 114	Fundamentals of Physical Geography	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3	
	BIOL 151	Foundations of Biology I/ General Genetics	2	1	3	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3	
	BIOL 152	Foundations of Biology II/ General Botany	2	1	3	BIOL 153	Foundations of Biology III/ Invertebrate and Vertebrate Zoology	2	1	3	
						BIOL 176	Introduction to Microbiology	2	1	3	
Total			16	2	18	Total			16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDFO 280	Sociology and Comparative Education	3	0	3	
	GEOG 296	Geomorphological Studies	3	0	3	BIOL 286	General Ecology	2	1	3	
	ENVI 298	Hydrological Studies and Water Resources	3	0	3	BIOL 285	Biostatistics	3	0	3	
	BIOL 296	History and Philosophy of Biology	3	0	3	ENGL 106	Speech Communication	1	0	1	
	BIOL 290	Fund of Cell and Molecular Biology	3	1	4	INSY 107	Information Technology Today	2	0	2	
						GEOG 226	Geography of Tourism and Leisure	3	0	3	
Total			17	1	18	Total			17	1	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 313	Methods Teaching Geography	3	0	3	
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	EDTM 321	Methods Teaching Biology	3	0	3	
	GEOG 321	Remote Sensing	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	ZOOL 360	Parasitology and Immunology	2	1	3	
	BOTN 374	Systematic Botany	2	1	3	BOTN 432	Plant Physiology	2	1	3	
	EDTE 301	Educational Communication and Technology	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3	
	Total			17	1	18	Total			16	2
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDPC 244	Educational Guidance and Counseling	2	0	2	
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3	
	ZOOL 448	Developmental Biology	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3	
	GEOG 326	Agricultural Geography	3	0	3	ZOOL 464	Systems Physiology	4	0	4	
	EDFO 403	Entrepreneurship Education	3	0	3	RELT 207	Christian Beliefs	3	0	3	
Total			18	0	18	Total			17	0	17

Teaching Subjects: 1st... HOME SCIENCE 2nd... BIOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	2	0	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	HOSC 116	Creative Needle Work	1	0	1	HOSC 150	Clothing Construction I	2	1	3	
	HOSC 120	Introduction to Food Preparation	2	1	3	HOSC 170	Resource Management in the Family	3	0	3	
	BIOL 151	Foundations of Biology I / General Genetics	2	1	3	BIOL 153	Foundations of Biology III/ Invert and Vertebrate Zoology	2	1	3	
	BIOL 152	Foundations of Biology II/ General Botany	2	1	3	BIOL 176	Introduction Microbiology	2	1	3	
	Total			15	3	18	Total			15	3
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	HOSC 235	Pattern Drafting	3	0	3	
	HOSC 216	Clothing Construction II (with Practical)	1	0	1	HOSC 250	Child Development and Growth	3	0	3	
	HOSC 230	Nutrition and Health	3	0	3	BIOL 286	General Ecology	2	1	3	
	BIOL 296	History and Philosophy of Biology	3	0	3	BIOL 285	Biostatistics	3	0	3	
	BIOL 290	Fund of Cell and Molecular Biology	3	1	4						
	Total			17	1	18	Total			17	1
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 323	Methods Teaching Home Science	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 321	Methods Teaching Biology	3	0	3	
	HOSC 300	Family Living	2	0	2	EDTE 333	Research Method in Education	3	0	3	
	HOSC 318	Personal Hygiene and Good Grooming	3	0	3	HOSC 319	Design for Living	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	HOSC 330	Meal Preparation and Management	2	1	3	
	BOTN 374	Systematic Botany	2	1	3	ZOOL 360	Parasitology and Immunology	2	1	3	
	Total			16	1	17	Total			16	2
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	HOSC 415	Tailoring	2	1	3	
	HOSC 400	Public Health and Community Nutrition	3	0	3	HOSC 455	Quantity Food Management and Production	3	0	3	
	HOSC 450	Food Demonstration Skills	2	0	2	ZOOL 464	Systems Physiology	4	0	4	
	ZOOL 448	Developmental Biology	2	1	3	RELT 207	Christian Beliefs	3	0	3	
	ENGL 106	Speech Communication	1	0	1	BOTN 432	Plant Physiology	2	1	3	
	EDFO 403	Entrepreneurship Education	3	0	3	Total			17	2	19
Total			17	1	18	Total			17	2	19

Teaching Subjects: 1st... CHEMISTRY 2nd... HOME SCIENCE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	2	0	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	CHEM 120	Fundamentals of Chemistry	2	1	3	CHEM 154	Introduction to Analytical Chemistry	2	1	3	
	CHEM 130	Introduction to Organic Chemistry	2	1	3	CHEM 171	Organic Functional groups	2	1	3	
	HOSC 116	Creative Needle Work	1	0	1	HOSC 150	Clothing Construction I	2	1	3	
	HOSC 120	Introduction to Food Preparation	2	1	3	HOSC 170	Resource Management in the Family	3	0	3	
	Total			15	3	18	Total			15	3
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM 231	Physical Chemistry I	2	1	3	CHEM 235	Chemical Analysis and Structural Determination	2	1	3	
	CHEM 205	Atomic Structure and Bonding	3	0	3	HOSC 235	Pattern Drafting	3	0	3	
	HOSC 216	Clothing Construction II	1	0	1	HOSC 250	Child Development and Growth	3	0	3	
	HOSC 230	Nutrition and Health	3	0	3						
	Total			17	1	18	Total			17	1
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 324	Methods Teaching Chemistry	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 323	Methods Teaching Home Science	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	CHEM 394	Heterocyclic chemistry and Stereochemistry	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	HOSC 319	Design for Living	3	0	3	
	HOSC 300	Family Living	2	0	2	HOSC 330	Meal Preparation and Management	2	1	3	
	HOSC 318	Personal Hygiene and Good Grooming	3	0	3	CHEM 271	Chemical Thermodynamics and Phase Equilibria	3	0	3	
	EDTE 333	Research Method in Education	3	0	3						
Total			18	1	19	Total			17	1	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	CHEM 402	Transition metals Chemistry	2	1	3	CHEM 425	Electrochemistry	3	0	3	
	CHEM 405	Industrial Chemistry I	2	1	3	HOSC 415	Tailoring	2	1	3	
	HOSC 450	Food Demonstration Skills	2	0	2	HOSC 455	Quantity Food Management and Production	3	0	3	
	HOSC 400	Public Health and Community Nutrition	3	0	3	ENGL 106	Speech Communication	1	0	1	
						CHEM 345	Synthetic Organic Chemistry	2	1	3	
Total			15	2	18	Total			16	2	18
Electives (Optional)											
PHYS 315	Atomic Physics	3	0	3	PHYS 421	Electromagnetic Theory I	3	0	3		

Teaching Subjects: 1st... MATHEMATICS 2nd... HOME SCIENCE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	2	0	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	MATH124	Basic Mathematics and Analytical Geometry	3	0	3	MATH150	Linear Algebra I	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH127	Differential Calculus	3	0	3	
	HOSC 116	Creative Needle Work	1	0	1	HOSC 150	Clothing Construction I	2	1	3	
	HOSC 120	Introduction to Food Preparation	2	1	3	HOSC 170	Resource Management in the Family	3	0	3	
	Total			17	1	18	Total			17	1
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	MATH248	Ordinary Differential Equations I	3	0	3	
	MATH227	Integral Calculus	3	0	3	MATH274	Complex Analysis I	3	0	3	
	MATH240	Real Analysis I	3	0	3	HOSC 235	Pattern Drafting	3	0	3	
	HOSC 216	Clothing Construction II	1	0	1	HOSC 250	Child Development and Growth	3	0	3	
	HOSC 230	Nutrition and Health	3	0	3						
	Total			18	0	18	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 325	Methods Teaching Mathematics	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 323	Methods Teaching Home Science	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	MATH	Pure or Applied or Stat	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	HOSC 319	Design for Living	3	0	3	
	HOSC 300	Family Living	2	0	2	HOSC 330	Meal Preparation and Management	2	1	3	
	HOSC 318	Personal Hygiene and Good Grooming	3	0	3	CHEM 394	Heterocyclic chemistry and Stereochemistry	3	0	3	
						EDTE 333	Research Method in Education	3	0	3	
	Total			17	0	17	Total			20	1
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	HOSC 415	Tailoring	2	1	3	
	HOSC 450	Food Demonstration Skills	2	0	2	HOSC 455	Quantity Food Management and Production	3	0	3	
	HOSC 400	Public Health and Community Nutrition	3	0	3	ENGL 106	Speech Communication	1	0	1	
						EDPC 244	Educational Guidance and Counseling	2	0	2	
	Total			17	0	17	Total			16	1
Electives (Optional)											
	CHEM 384	Coordination Chemistry	3	0	3	CHEM 419	Environmental Chemistry	3	0	3	

Teaching Subjects: 1st... MATHEMATICS 2nd... BUSINESS EDUCATION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	BSED 106	Sales Management and Marketing	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 150	Linear Algebra I	3	0	3	
	BSED 130	Principles and Practices of Management	3	0	3	MATH 127	Differential Calculus	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	BSED 166	Purchasing and Supply Logistics	3	0	3	
	ENGL 106	Speech Communication	1	0	1	EDFO 130	History of Education	2	0	2	
Total			18	0	18	Total			18	0	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	BSED 250	Intermediate Economics	3	0	3	BSED 253	Investment	3	0	3	
	BSED 220	Business Statistics	3	0	3	MATH 248	Ordinary Differential Equations I	3	0	3	
	MATH 227	Integral Calculus	3	0	3	MATH 274	Complex Analysis I	3	0	3	
	MATH 240	Real Analysis I	3	0	3	RELB 220	Life and Teachings of Jesus	2	0	2	
						INSY 107	Information Technology Today	2	0	2	
Total			18	0	18	Total			19	0	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 325	Methods Teaching Mathematics	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 329	Methods Teaching Business	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	EDTE 333	Research Methods in Education	3	0	3	
	MATH	Pure or Applied or Stat	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
	BSED 315	Office Admin and Management	3	0	3	BSED 360	Public and Business Finance	3	0	3	
	BSED 341	Business Law	3	0	3	BSED 358	Organizational Theory and Behavior	3	0	3	
	Total			18	0	18	Total			18	0
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	MATH	Pure or Applied or Statistics	3	0	3	
	MATH	Pure or Applied or Statistics	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	BSED 430	Theory and Practice of HRM	3	0	3	BSED 461	Auditing	3	0	3	
	BSED 433	Financial and Managerial Accounting	3	0	3	BSED 490	Marketing Research	3	0	3	
	Total			18	0	18	Total			17	0

Teaching Subjects: 1st... GEOGRAPHY 2nd... BUSINESS EDUCATION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	GEOG 101	Introduction to Geography	3	0	3	BSED 166	Purchasing and Supply Logistics	3	0	3	
	GEOG 114	Fundamentals of Physical Geography	3	0	3	INSY 107	Information Technology Today	2	0	2	
	BSED 130	Principles and Practices of Management	3	0	3	GEOG 123	Fundamentals of Human Geography	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	GEOG 130	Introduction to Cartography, Map work and Land Surveying	3	0	3	
	ENG 105	Writing Skills	3	0	3	BSED 106	Sales Management and Marketing	3	0	3	
						EDFO 130	History of Education	2	0	2	
Total			17	0	17	Total			18	0	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	GEOG 296	Geomorphological Studies	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	ENVI 298	Hydrological Studies and Water Resources	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3	
	BSED 250	Intermediate Economics	3	0	3	BSED 253	Investment	3	0	3	
	MGMT 250	Business Statistics	3	0	3	ENGL 106	Speech Communication	1	0	1	
						EDTE 180	Health Education and Life skills	2	0	2	
Total			18	0	18	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 313	Methods Teaching Geography	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 329	Methods Teaching Business	3	0	3	
	RELB 220	Life and Teachings of Jesus	3	0	3	EDTE 333	Research Methods in Education	3	0	3	
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	GEOG 326	Agricultural Geography	3	0	3	
	GEOG 321	Remote Sensing	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3	
	BSED 341	Business Law	3	0	3	BSED 358	Organizational Theory and Behavior	3	0	3	
						BSED 360	Public and Business Finance	3	0	3	
Total			18	0	18	Total			21	0	21
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	GEOG 410	Research Methods in the Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3	
	BSED 315	Office Admin and Management	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3	
	BSED 430	Theory and Practice of HRM	3	0	3	BSED 461	Auditing	3	0	3	
	BSED 433	Financial and Managerial Accounting	3	0	3	BSED 490	Marketing Research	3	0	3	
Total			18	0	18	Total			17	0	17

Teaching Subjects: 1st... BIOLOGY 2nd... BUSINESS EDUCATION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	BIOL 151	Foundations of Biology I/ General Genetics	2	1	3	BIOL 153	Foundations of Biology III/ Invertebrate and Vertebrate Zoology	2	1	3	
	BIOL 152	Foundations of Biology II/ General Botany	2	1	3	BIOL 176	Introduction to Microbiology	2	1	3	
	BSED 130	Principles and Practice of Management	3	0	3	BSED 106	Sales and Management Marketing	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDFO 130	History of Education	2	0	2	
						BSED 166	Purchasing and Supply Logistics	3	0	3	
Total			15	2	17	Total			16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	EDFO 280	Sociology and Comparative Education	3	0	3	
	BIOL 296	History and Philosophy of Biology	3	0	3	BIOL 286	General Ecology	2	1	3	
	BIOL 290	Fund of Cell and Molecular Biology	3	1	4	BIOL 285	Biostatistics	3	0	3	
	BSED 220	Business Statistics	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	BSED 250	Intermediate Economics	3	0	3	BSED 253	Investment	3	0	3	
						ENGL 106	Speech Communication	1	0	1	
Total			17	1	18	Total			17	1	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 329	Methods Teaching Business	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 321	Methods Teaching Biology	3	0	3	
	BSED 341	Business Law	3	0	3	EDTE 333	Research Method in Education	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	ZOOL 360	Parasitology and Immunology	2	1	3	
	BOTN 374	Systematic Botany	2	1	3	BSED 358	Organizational Theory and Behavior	3	0	3	
	BSED 315	Office Admin and Management	3	0	3	BSED 360	Public and Business Finance	3	0	3	
	Total			17	1	18	Total			17	1
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	ZOOL 448	Developmental Biology	2	1	3	ZOOL 464	Systems Physiology	4	0	4	
	BSED 430	Theory and Practice of HRM	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	BSED 433	Financial and Managerial Accounting	3	0	3	BSED 461	Auditing	3	0	3	
	BOTN 432	Plant Physiology	2	1	3	BSED 490	Marketing Research	3	0	3	
	Total			16	2	18	Total			19	0

Teaching Subjects: 1st... BUSINESS EDUCATION.....2nd...CHEMISTRY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2	
	ENGL 105	Writing Skills	3	0	3	EDTE 180	Health Education and Life skills	2	0	2	
	CHEM 120	Fundamentals of Chemistry	2	1	3	ENGL 106	Speech Communication	1	0	1	
	CHEM 130	Introduction to Organic Chemistry	2	1	3	INSY 107	Information Technology Today	2	0	2	
	EDFO 130	History of Education	2	0	2	CHEM 154	Introduction to Analytical Chemistry	2	1	3	
	BSED 130	Principles and Practice of Management	2	0	2	CHEM 171	Organic Functional groups	2	1	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	BSED 106	Sales and Management Marketing	3	0	3	
						BSED 166	Purchasing and Sup Logistics	3	0	3	
Total			16	2	18	Total			17	2	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	CHEM 231	Physical Chemistry I	2	1	3	RELT 207	Christian Beliefs	3	0	3	
	CHEM 205	Atomic Structure and Bonding	3	0	3	CHEM 235	Chemical Analysis and Structural Determination	2	1	3	
	BSED 250	Intermediate Statistics	3	0	3	CHEM 271	Chemical Thermodynamics and Phase equilibria	3	0	3	
	BSED 220	Business Statistics	3	0	3	BSED 253	Investment	3	0	3	
	Total			17	1	18	Total			17	1
3rd	Code	Course Title	T	L	TC	Code	Course Title	17	1	18	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 324	Methods Teaching Chemistry	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM 329	Methods Teaching Business	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	EDTE 333	Research Method in Education	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 394	Heterocyclic chemistry and Stereochemistry	3	0	3	
	BSED 341	Business Law	3	0	3	CHEM 345	Synthetic Organic Chemistry	2	1	3	
	BSED 315	Office Admin and Management	3	0	3	BSED 358	Organizational Theory and Behavior	3	0	3	
Total			16	1	17	Total			17	1	18
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	3	0	3	
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3	
	CHEM 402	Transition metals Chemistry	2	1	3	CHEM 425	Electrochemistry	3	0	3	
	CHEM 405	Industrial Chemistry I	2	1	3	BSED 461	Auditing	3	0	3	
	BSED 430	Theory and Practice of HRM	3	0	3	BSED 490	Marketing Research	3	0	3	
	BSED 433	Financial and Managerial Accounting	3	0	3	BSED 360	Public and Business Finance	3	0	3	
Total			16	2	18	Total			18	0	18

Teaching Subjects: 1st... GEOGRAPHY.....2nd.... AGRICULTURE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDPC 106	Educational Psychology	3	0	3	EDFO 260	Philosophy of Education	2	0	2
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life skills	2	0	2
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	GEOG 101	Introduction to Geography	3	0	3	INSY 107	Information Technology Today	2	0	2
	GEOG 114	Fundamental of Physical Geography	3	0	3	GEOG 130	Introduction to Cartography, Map work	3	0	3
	AGRI 101	Crop Production Skills	1	0	1	GEOG 123	Fundamental of Human Geography	3	0	3
	AGRI 108	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3
						AGRI 116	Agriculture Ecology Trip	1	0	1
						AGRI 102	Animal Production Skills	1	0	1
	Total		17	0	17	Total		17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3
	GEOG 296	Geomorphological Studies	3	0	3	GEOG 226	Geography of Tourism and Leisure	3	0	3
	CPSC 213	Introduction to Soils	2	1	3	CPSC 279	Crop Physiology	2	1	3
	ANSC 211	Introduction to Animal Science	2	1	3	ENVI 298	Hydrological Studies and Water Resources	3	0	3
		Total		15	2	17	Total		17	1
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDTE 301	Educational Communication and Technology	3	0	2	EDTM 322	Methods Teaching Agriculture	3	0	3
	EDTE 326	Educational Measurement and Evaluation	3	0	2	EDTM 313	Methods Teaching Geography	3	0	3
	AGRI 335	Mushroom Production	1	1	2	EDTE 333	Research Method in Education	3	0	3
	GEOG 310	Geography of Kenya and the East African Region	3	0	3	GEOG 355	Geographical Information Systems (GIS)	3	0	3
	CPSC 314	Crop Production I	2	1	3	CPSC 325	Crop Production II	2	1	3
	AGEC 345	Agricultural Economics	3	0	3	GEOG 321	Remote Sensing	3	0	3
		Total		15	2	17	Total		17	1
Inter-Semester					EDTE 399	Teaching Practice in Secondary School	6	0	6	
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2
	EDFO 401	Planning and Economics of Education	3	0	3	EDFO 403	Entrepreneurship Education	3	0	3
	GEOG 410	Research Methods in Social Sciences	3	0	3	GEOG 430	Meteorology and Climatology	3	0	3
	GEOG 326	Agricultural Geography	3	0	3	GEOG 498	Independent Research Project in Geography	3	0	3
	ANSC 411	Poultry Science	2	1	3	AGEC 413	Management of Agriculture	2	1	3
	CPSC 412	Crop Protection	2	1	3	ANSC 442	Dairy Production	2	1	3
						RELB 220	Life and Teachings of Jesus	2	0	2
	Total		16	2	18	Total		17	2	19

COURSE DESCRIPTIONS

EDFO 130 History of Education 2 Credits

This course introduces the highlights of the historical accounts of education from the known antiquities (Eden, Greek and Roman societies) to the present East African educational systems. Topics covered are the definitions of history, education and history of education; functions and roles of education in societies, significance of the study of history of education to the teaching profession; the Biblical accounts of education such as education in Eden, education of the patriarchs, the School in the Wilderness, the School of Prophets, and the School of Jesus Christ and His disciples; the ancient secular historical accounts such as African indigenous education, education in Egypt, education in Mesopotamia, Greek education, Roman education, early Christian education; education of the period of renaissance to the age of humanism, education of missionaries in Africa, and history of education in pre-colonial and post-colonial Kenya, Uganda, and Tanzania.

EDFO 260 Philosophy of Education 2 Credits

This course discusses a background to the study of philosophy for students pursuing a Bachelor of Education degree program. Topics include the Adventist philosophy of education as explained in the Bible and the Spirit of Prophecy; philosophical theories of education; a history and practice of world philosophies of education including idealism, realism, naturalism, pragmatism, existentialism, Ujamaa and the African philosophical thoughts. The course also considers the thoughts of world philosophers such as Socrates, Plato, Aristotle, St. Augustine, Immanuel Kant, William James, John Dewey, John Locke, Thomas Aquinas, John Amos Comenius, Ignatius Loyola, Jean J. Rousseau, Rene Descartes, Jean Paul Sartre, Fredrick W. Nietzsche, Karl Marx, Julius Nyerere, Milton Obote, Kwame Nkrumah, Robert Mugabe and their influence on the educational systems of the world.

EDFO 280 Sociology and Comparative Education 3 Credits

The course explains ways through which education and society impact on each other and compares educational systems of different countries. Discussion includes society and school, socialization process of education, the nature, roots and types of education; education and schooling in contemporary society; sociological theories; social stratification and education; education and employment; the role of a teacher in society as explained by the Christian church and the secular world; concepts of and development of comparative education; methods of studying education systems between Kenya and the East African Region; South Africa, United Kingdom, United States of America, Canada, Cuba, Japan and China.

EDFO 400 Education Policy and Management 3 Credits

This course provides the students with principles and functions of schools management; theories of educational administration; school as an organization: effective institutional governance, leadership and supervision, delegation and authority, communication and negotiation, conflict and conflict resolutions, legal provision in school management; policy formulation, policy implementation monitoring and evaluation, stakeholder participation in school management, management of school resource: finance, human and physical. *Prerequisites: EDFO 130, EDFO 260 and EDFO 280.*

EDFO 401 Planning and Economics of Education 3 Credits

This course discusses the meaning of educational planning; planning for resources: human, finance, physical; models of educational planning; resource appraisal and monitoring; principles of economics in education; micro and macroeconomics; economic issues in education; education and socio-economic development; The relevance of national vision and educational planning; The evaluation procedures of a school and national educational goals are stressed. *Prerequisites: EDFO 130, EDFO 260 and EDFO 280*

EDFO 410 Environmental Education 2 Credits

This course gives the definition of environment education; effects of human activity on environment; need for environmental education; pollution; history and philosophy of environmental education; society, development and environment; environmental management and sustainable development; instruction in environmental education; environmental education for sustainability in schools. *Prerequisites: EDFO 130, EDFO 260 and EDFO 280.*

EDFO 403 Entrepreneurship in Education 3 Credits

This course discusses the meaning, nature and purpose of entrepreneurship; Entrepreneurship and education; basic concepts in entrepreneurship: demand and supply, business opportunities in education; developing business plans in education; business policies in Kenya; business acumen; resources mobilization for entrepreneurship. *Prerequisites: EDFO 130, EDFO 260 and EDFO 280.*

EDPC 106 Educational Psychology 3 Credits

This course introduces to the basic concepts of psychology; historical perspective in psychology; schools and branches of psychology; general human development with special emphasis on adolescence; biological, social and cultural factors affecting human development; factors influencing behavior, intelligence, motivation, emotions, perception, sensation and learning; application of psychological concepts and principles; theories of learning; retention and transfer of knowledge.

EDPC 238 Human Growth and Development 3 Credits

Concepts of human development: biological, social, cultural and ecological development; childhood, adolescent and adulthood development; theories of development; physical motor, emotional, mental, moral language and personality development; relationship between growth, development and education.

EDPC 244 Educational Guidance and Counselling 2 Credits

Concepts and significance of guidance and counseling; methods and procedures in guidance and counseling; ethics in guidance and counseling; theories of guidance and counseling; career and occupational awareness; psychological and social factors underlying individual differences.

EDTE 180 Health Education and Life Skills 2 Credits

The course introduces students to the principles of health of healthful living: NEWSTART; health education in schools; human anatomy: human organ system, their interdependence, significant disorders and care; communicable diseases and their control; emergency treatment; principles of physical and mental health; principles of physical and mental health; health and nutrition; recreation and sport; family health, family

planning and population control; living with oneself; living with others, effective decision making; living values. *Prerequisite: EDPC 106.*

EDTE 210 Curriculum Development 3 Credits

This course is an introductory study of concepts of curriculum and curriculum development; patterns of curriculum design; curriculum implementation and teacher education; curriculum evaluation; foundations of curriculum: historical, philosophical and psychological; dimensions of curriculum; elements/components of curriculum; curriculum change and innovation; agencies involved in curriculum development, theories of curriculum development; principles and procedures of curriculum development; dimensions of curriculum; national goals of education, millennium development goals and Kenya vision 2030; the role of the National Curriculum Centre in Kenya. *Prerequisites: EDTE 180 and EDPC 106.*

EDTE 255 Principles and Methods of Teaching 3 Credits

This course gives concepts in teaching and learning; systems approach in teaching; methods, techniques, strategies of teaching; deriving goals and objectives of teaching; evaluation methods; learning theories; effective classroom communication; preparation for teaching: syllabus, scheme of work, lesson plan; and record of work; classroom organization and management; providing for individual differences; emerging issues in teaching. *Prerequisites: EDPC 106 and EDPC 238 (Students taking this class are required to go for a field trip).*

EDTE 301 Educational Communication and Technology 3 Credits

In this course the student is introduced to communication models and theories in learning; effective communication: visual, verbal and non-verbal; media for learning: electronic radio broadcast, print; learning resources; development of educational media and resources; basic skills in teaching: questioning, set, induction, stimulus variation and closure; design, development and evaluation of teaching and evaluation of teaching materials; management and use of teaching and learning resources. *Prerequisites: EDTE 210, EDTE 255, EDPC 106 and EDPC 238.*

EDTE 333 Research Methods in Education 3 Credits

This course introduces to the student to the Definition and purpose of research; types of research: basic and applied research; characteristics of research; ethics in research; techniques in research: quantitative and qualitative research; research process: problem identification, formulation of hypothesis; identification of variables; validity in research; literature review; tools for data collection; sampling methods; statistical tools of data analysis interpretation and hypothesis testing; writing research proposal and report; dissemination of research findings. To run for two semesters for data collection and analysis. *Prerequisites: EDTE 210 EDTE 326 and ENGL 105.*

EDTE 326 Educational Measurement and Evaluation 3 Credits

This is a course that is designed to give student teachers the Concepts of evaluation and measurement; statistical analysis: measures of central tendency, variability, correlation, regression analysis, hypothesis testing, scales of measurements; philosophy and nature of educational testing: reliability, validity, discrimination index; test construction: types and test formats, tests construction and administration; characteristics of a good test. *Prerequisite: EDTE 255.*

EDTE 397 Teaching Practice 3 Credits

This is a course designed to give student teachers an actual teaching experience in the classroom in the primary school for a minimum period of 12 to 13 weeks. Student teachers taking this course must prepare, teach and evaluate the work of children, under the supervision of the cooperating teacher in the subject areas taught. *Prerequisites: EDTE 301 EDTE 326, EDPC 244 and any two relevant courses of the EDTM 311 to 338 applicable to the teaching subject areas, department committee action and attending an orientation seminar on teaching practice. (This course is an exemption designed for students who have taken a diploma in education teaching in primary school).*

EDTE 398 Teaching Practice 3 Credits

This is a course designed to give student teachers an actual teaching experience in the classroom in the secondary school for a minimum period of 12 to 13 weeks. Student-teachers taking this course must prepare, teach and evaluate the work of children, under the supervision of the cooperating teacher in the subject areas taught. *Prerequisites: EDTE 210 EDTE 301 EDTE 326, EDPC 244 EDTE 210 and any two relevant courses of the EDTM 311 to 338 applicable to the teaching subject areas, department committee action and attending an orientation seminar on teaching practice. (This course is an exemption designed for students who have taken a diploma in education teaching secondary school).*

EDTE 399 Teaching Practice in Secondary Schools 6 Credits

This course gives the student teachers pursuing a Bachelor of Education (secondary option) actual experience in the classroom in the secondary school for a minimum period of 12 to 13 weeks. Student teachers prepare, teach and evaluate the work of pupils, under the supervision of the cooperating teachers in the subject areas taught. The students are expected to develop schemes of work and lesson plans. Students involved in teaching practice must stay within the cooperating school throughout the working hours of the day and must attend to all the activities of the school. Students are assessed by the teachers from the School of Education, Humanities, and Social Sciences, and the subject teachers with teacher training background from individual departments of the University responsible for the teaching subjects. Students are externally examined beginning the ninth week of teaching practice. The external examiner shall be recommended by the Department of Education and the School of Education, Humanities and Social Sciences and approved by the Administrative Board of the University. *Prerequisites: EDTE 301, EDTE 326, EDPC 106, EDPC 238, EDPC 244 and any two relevant courses of the EDTM 311 to 338 applicable to the teaching subject areas, department committee action and attending an orientation seminar on teaching practice.*

EDTM 311 Special Methods in Teaching History and Government 3 Credits

This course deals with selected methods and instructional aids used in teaching history in secondary schools. Students will be taught how to develop scheme of work, record of covered and lesson plans that incorporate creative methods of teaching, addressing the cognitive, affective, and psychomotor domains of teaching history. Some of the methods and techniques to be discussed will include inductive and deductive methods, lecture, discussion, group discussion, question and answer, study groups, panel discussions, brainstorming, role playing, simulation, project and assignment.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; study skills, administration and taking of tests; student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 312 Special Methods in Teaching Religious Education 3 Credits

This course deals with selected methods and instructional aids used in teaching religious education in secondary schools. Students will be taught how to develop schemes of work and lesson plans that incorporate creative methods of teaching religion addressing the cognitive, affective, and psychomotor domains of religious instruction. Methods to be discussed will include inductive and deductive teaching, lecture, discussion, group discussion, question and answer, study groups, panel, role playing, project, assignment, expository, topical and life application. The course stresses the relevance of teaching religious education as a subject in upholding and instilling moral and social values in modern society.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 313 Special Methods in Teaching Geography 3 Credits

This course deals with selected methods and instructional media/materials used in teaching geography as a subject. Students will be taught how to develop schemes of work and lesson plans that incorporate creative methods of teaching geography addressing the cognitive, affective, and psychomotor domains of instruction. Methods discussed include inductive and deductive teaching, lecture, discussion, group discussion, question and answer, study groups, field work, demonstration, and assignment. The use of maps, field trips, photographs, and map reading are highly emphasized.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 314 Special Methods in Teaching English language 3 Credits

This course deals with the development of language skills necessary for the teaching of the English language. The emphasis is on teachers-in-training developing a repertoire of strategies that enhance the learning of English as a second language. Students are expected to learn how to develop schemes of work and lesson plans based on the secondary school syllabus. Teaching methods applicable to the teaching

of the English language such as role playing, simulation, lecture, discussion, recitation, drill, expository, story-telling, assignments, small study groups and others are discussed. Students are also involved in micro-teaching to sharpen their delivery skills. Cognizance is made of the fact that English language and literature are integrated in the Kenya Secondary School System.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106, EDPC 238.*

EDTM 315 Special Methods in Teaching Literature in English 3 Credits

This course deals with the development of skills necessary for the teaching of literature in English. The teacher trainees are expected to acquire the skills to guide their learners in appropriating literature as the creative use of language. Methods of presenting both oral and written literature are addressed. Students are expected to learn how to develop schemes of work and lesson plans based on the secondary school syllabus. Trainees are exposed to the different methods of guiding their learners in critically analyzing literary works. Cognizance is made of the fact that literature and language are integrated in the Kenya Secondary School system.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106, EDPC 238.*

EDTM 316 Special Methods in Teaching Kiswahili Language 3 Credits

This course deals with the development skills necessary for the teaching of Kiswahili language. The emphasis is on teachers-in-training developing a repertoire of strategies that enhance a variety of learning in their students. Students develop schemes of work and lesson plans based on the secondary school syllabus with specific emphasis on Kiswahili language and literature. Teaching methods applicable to the teaching of language and literature such as role play, simulation, lecture, discussion, recitation, drill, expository, story-telling, assignments, small study groups and others are discussed. Cognizance is made of the fact that literature and language in Kiswahili are integrated in Kenya Secondary School system.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 31 Special Methods in Teaching French 3 Credits

This course deals with the development of language skills necessary for the teaching of French as a second language. Emphasis is laid on teachers-in-training developing a repertoire of strategies that enhance a variety of learning methods in their students. Students develop schemes of work and lesson plans based on the secondary school syllabus with specific emphasis on French. Teaching methods applicable to the teaching of French language such as role playing, simulation, lecture, discussion, recitation, drill, expository, story-telling, assignments, small study groups and others are discussed.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 321 Special Methods in Teaching Biology 3 Credits

The meaning and goals of science education; the main viewpoints of science; the static and the dynamic view of science and their influence in science teaching; methods and approaches of biology teaching at secondary school level; a process based approach to biology teaching; an examination of the science process skills with special reference to skills of observation, recording, classifying, synthesizing, evaluation, interpretation etc.; critical view of biology recent developments in the discipline and the welfare of mankind; historical development of the biology syllabus in Kenya; critical analysis of different biology syllabi used in secondary schools; planning for biology teaching the syllabus, schemes of work, lesson planning, lesson notes and record of work covered; Teaching strategies class experiments, demonstration field trips and biology projects; exemplified project work in biology; resources and facilities for teaching biology; botanical techniques and resource building for biology teaching; laboratory design and management; assessment and evaluation in biology; professional growth after college; membership in subject panels, biology teacher associations, biology journals are topics included in this course.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 105, EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 322 Special Methods in Teaching Agriculture 3 Credits

This course deals with the teaching of agriculture at the secondary school level. Students will be trained in the preparations of teaching objectives in agriculture in all the three instructional domains; cognitive, affective and psychomotor. Students will be trained to plan and implement lessons and scheme of work based on the subject matter taught at the Kenyan Secondary School level. Teaching methods applicable to the teaching of agriculture including experimentation, lecture, discussion, drill, assignments, demonstration, small study

groups, field trips, field work, project and others are discussed. This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 323 Special Methods in Teaching Home Science 3 Credits

This course deals with the teaching of home science at the secondary school level. Various methods and strategies are used in teaching aspects of food and nutrition, life and child development, clothing construction, livelihood and consumer science. Students will be trained in the preparations of teaching objectives in Home Science in all three instructional domains; cognitive, affective and psychomotor. Students will be trained to plan and implement lessons and scheme of work based on the Kenyan Secondary School level syllabus. Teaching methods applicable to the teaching of home science including experimentation, lecture, project, discussion, drill, demonstration, assignments, small study groups, project, field work and others are discussed.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 324 Special Methods in Teaching Chemistry 3 Credits

The meaning of science education; science as a dynamic process; scientific methods; (processes) and their applications in chemistry teaching; strategies of teaching chemistry; project work in chemistry; fabrication and improvisation of simple chemistry teaching materials; laboratory design, organization and materials management; health and safety in the chemistry laboratory; preparation of solutions; secondary school syllabus and relevant reading materials, schemes of work and lesson planning in chemistry; the role of chemistry in society; qualities of a good chemistry teacher; assessment in chemistry; Conducting KCSE chemistry experiments are topics to be covered.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 325 Special Methods in Teaching Mathematics 3 Credits

This course is an introduction to mathematics education philosophy and foundations of mathematics; general goals and objectives of mathematics; the 8-4-4 secondary school mathematics curriculum and syllabus; syllabus, scheme

of work and lesson plans in mathematics; methods and techniques of teaching mathematics lessons; test preparations, administration and scoring; use of test results; learning and instructional theories in teaching mathematics lessons; models for teaching and learning the objects of mathematics; teaching aids, constructing a valid and reliable mathematics examination and the marking scheme, teaching practice; strategy of teaching mathematics, project work in mathematics.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 326+ Special Methods in Teaching Physics 3 Credits

This course discusses the meaning of science education; science as a dynamic process, scientific methods, brief history of physics; investigative techniques in physics Different types of tests, statistical analysis of tests, practical tests; practical testing; physics teaching in secondary schools; critical analysis of different physics syllabi used in secondary schools, scheme of work, lesson planning; teaching strategies class experiments, demonstration, projects, field trips; Assessments in physics writing examinations, different types of tests, practical assessments in physics, project assessments with emphasis on investigative and problem solving approach, laboratory facilities and teaching materials laboratory equipment procurement and storage, laboratory design and safety and management, appropriate physics text books.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 329 Special Methods in Teaching Business 3 Credits

The course deals with various methods and strategies of teaching business studies, such accounts, bookkeeping, office management, typing, computer, commerce, economics, and shorthand. Students will be taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching business studies addressing the cognitive, affective, and psychomotor domains of instruction. Methods to be discussed will include inductive and deductive teaching, demonstration, lecture, discussion, drill, assignments, small study groups, demonstration, project, and others.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 337 Special Methods in Teaching Physical 3 Credits

This course deals with selected methods and instructional aids used in teaching physical education as a science subject. Students are taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching physical education as a science addressing the cognitive, affective, and psychomotor domains of instruction. Methods discussed include inductive and deductive teaching, experimentation, demonstration, lecture, discussion, drill, assignments, small study groups, project, field work and others.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 338 Special Methods in Teaching Computer Science 3 Credits

The course deals with various methods and strategies of teaching computer knowledge to pupils and students in a school setting. It covers practical and theoretical approaches to imparting knowledge on the hard and software aspects of the computer and its practical applications in the day-to- day life. Students will be taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching practical computer knowledge addressing the cognitive, affective, and psychomotor domains of instruction. Methods to be discussed will include demonstration, lecture, discussion, drill, assignments, small study groups, project, and others.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106, EDPC 238.*

EDTM 351 Science Teaching Methods 3 Credits

The meaning and goals of science education; the main viewpoints of science; the static and the dynamic view of science and their influence in science teaching; methods and approaches of science; a process and practical based approach to sciences. Selected methods of instruction used for teaching science in primary schools. Subjects covered included mathematics, biology, chemistry and physics. Students develop schemes of work and lesson plans based on Kenya primary syllabi for the two subjects a student is specialized taught in primary schools.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238.*

EDTM 352 Social Science Teaching Methods

3 Credits

This course deals with selected methods of instruction used for teaching history, geography and religions in primary schools. Students develop schemes of work and lesson plans based on Kenya primary syllabi for the two social studies subjects a student is specialized in.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 106 and EDPC 238*

EDTM 353 Language Teaching Methods

3 Credits

This course deals with selected methods of instruction used for teaching English language and Lugha ya Kiswahili in primary schools. Students develop schemes of work and lesson plans based on Kenya primary syllabi for the two languages a student is specialized in.

This course also gives hands on experience of teaching in a classroom setting. Students will be required present lessons in the teaching subject to their classmates in the curriculum lab under the guidance of experienced lecturers in the areas of teaching; The making and use of teaching portfolios; Study skills, administration and taking of tests; Student presentations and evaluation. *Prerequisites: EDTE 210, EDTE 301, EDTE 326, EDPC 10 and EDPC 238*

EDUC 215 Philosophy of Christian Education

2 Credits

This course discusses a brief background to the study of philosophy in general, and a detailed study of the Adventist philosophy of Education as explained in the Bible and the Spirit of Prophecy in particular. Discussion center's around such aspects of the teaching learning process as philosophy,

education, philosophy of education, sources of knowledge, aims of education, the significance of philosophy of education to the teaching profession; man, his nature before and after fall, metaphysics (reality), epistemology (knowledge), axiology (value or goals of education), the learner, the teacher, the school, methods of teaching/learning, curriculum, work program, and dressing. It may also include some philosophers whose philosophical thoughts have influenced the Christian philosophical world views such as Socrates, Plato, St. Augustine, Thomas Aquinas, and Ignatius Loyola. (This course is a general requirement for students who do not take a Bachelor of Education degree program)

PEAC 107 Physical and Recreational Activities

1 Credits

This course exposes students to the concepts, games and activities that enhance physical fitness through a series of organized physical activities. It includes the following recreation and physical activities: soccer, softball, basketball, volleyball, netball, lawn tennis, hockey and handball activities, rotation and circles, body stretching and balance, shoulder blades, trunk rolls, body plows, elbow thrusts, knee bends and circles, ordinary jumping jacks, knee-tap rhythms, stand-up balances, frog-jump moves, Masai jumps, complex jumping jacks, 4-count burps, step-kick and squat, squat-thrust and stretch, push-ups, crab-stretch movement, alternate knee to chest, double knee to chest, sit and reach, crab stretch, platter kicks, v-balance, knee flexion, sit-ups, leg-over, cycle kicks, arm circles, knee rotations and deep breath.

SOCI 121 Introduction to Sociology

2 Credits

The course is an introduction to the discipline of sociology, the theory and practice that attempts to describe an interpretative understanding of social causes, social relations and social actions in order thereby to arrive at a causal explanation of its course process and effects. It discusses social institutions, socialization, social grouping, social interactions, social conflicts, and social self-regulations.

POST-GRADUATE DIPLOMA IN EDUCATION

The Department of Education offers a one year Post Graduate Diploma in Education to graduates from any recognized institution of higher learning without education. The candidate must hold a first degree with two areas of specialization that are taught at secondary school level. Applicants who did only one subject area in their Bachelor's degree program will be advised to make up the deficiency by adding a minimum of 24 semester credits from a second teaching subject area before going for teaching practice or else will not be allowed to graduate with a Post Graduate Diploma in Education. Applicants whose first degree did not address a subject taught at Secondary School level, are not qualified to take this program. Applicant must have passed KCSE with a mean grade of C+ or its equivalent. Applicants who did a subject at degree level which they did not pass at Secondary school level with a minimum grade of C+ are also not qualified to enroll for a PGDE program.

EXPECTED LEARNING OUTCOMES

After going through a post graduate diploma course in Education, students should be able to:

1. Prepare schemes of work/course outline, lesson plan and record of work in two subjects examined at secondary school level;
2. Teach two subject areas examined at secondary school level;
3. Lead an educational institution and organization;
4. Identify themselves and impact a positive influence on the youth;
5. Pursue post graduate studies in the field of education.

SUMMARY

Educational Foundations	6
Educational Communications and Technology	12
Educational Administration and Curriculum Development	6
Subject Teaching Methods	6
Teaching Practice	4
Total	37 Credits

COURSE REQUIREMENTS

EDUCATIONAL FOUNDATION COURSES 9 Credits

Code	Course Title	Credits
EDPS 501	Psychology of human development and learning	3
EDST 503	Statistics Applied to Education and Psychology	3
EDFO 501	Historical and Philosophical Foundations of Education	3
Total		9

EDUCATIONAL COMMUNICATION AND TECHNOLOGY COURSES 12 Credits

Code	Course Title	Credits
EDTE 515	Principles and Methods of Teaching	3
EDTE 545	Tests, Measurement and Evaluation	3
EDTE 547	Educational Research Methodology	3
EDTE 548	Educational Communication and Technology	3
Total		12

EDUCATIONAL ADMINISTRATION AND CURRICULUM DEVELOPMENT 6 Credits

Code	Course Title	Credits
EDAD 521	Educational Management and Planning	3
EDUC 531	Curriculum Planning and Development	3
Total		6

SUBJECT TEACHING METHODS 6 Credits

A student is required to take two of the subject teaching method courses, selected from the list of subjects given below. The subject areas must correspond with the subjects the candidate will be teaching after graduating from the university. Each of the subject teaching methods has four extra contact hours per week of laboratory designed to review the secondary school syllabuses of the two subjects to be taught and to review all the practical exercises to be taught in secondary schools within the two areas of specialization.

Code	Course Title	Credits
EDTM 560	History Teaching Methods	3
EDTM 561	Religious Education Teaching Methods	3
EDTM 562	Geography Teaching Methods	3
EDTM 563	Biology Teaching Methods	3
EDTM 564	Chemistry Teaching Methods	3
EDTM 565	Physics Teaching Methods	3
EDTM 566	Mathematics Teaching Methods	3
EDTM 567	Business Education Teaching Methods	3
EDTM 568	Technology Teaching Methods	3
EDTM 569	Agriculture Teaching Methods	3
EDTM 570	English Language Teaching Methods	3
EDTM 571	English Literature Teaching Methods	3
EDTM 572	Kiswahili Language Teaching Methods	3
EDTM 574	French Teaching Methods	3
EDTM 575	Home Science Teaching Methods	3
EDTM 578	Special Methods in Teaching Computer Science	3

TEACHING PRACTICE 4 Credits

Code	Course Title	Credits
EDTE 590	Teaching Practice	4
Total		4

COURSE DESCRIPTIONS

EDAD 521 Educational Management and Planning 3 Credits

The course discusses concepts and definitions of school management. The managerial aspects of a school administrator; the need and role of the administration in a school society, various theories of administration and the administrative structures applicable to each of the theories is discussed. Administrative styles and school climate; the structure of the Ministry of Education right from the Minister's office down to a principal; The rights, benefits and roles of students, teachers and parents in the school society; It also explains process of planning educational programs and systems; The role and functions of the education strategies. Major approaches to educational planning, planning techniques and models, planning teaching requirements and supply; School size and location; Evaluating educational outcome.

EDFO 501 Historical and Philosophical Foundations of Education 3 Credits

This course discusses the historical and philosophical foundations of education. The historical aspect narrates the way education has been practiced throughout the known past to the present. It narrates the Biblical accounts of education including education in Eden, education of the Patriarchs, the School in the Wilderness, the School of Prophets, and the School of Jesus Christ and His disciples. It continues with the ancient secular historical accounts such as African indigenous education, education in Egypt, education in Mesopotamia, Greek education, Roman education, Early Christian education; education of the period of renaissance to the age of humanism, education of missionaries in Africa; post-colonial education in Kenya, Tanzania and Uganda; The philosophical aspect will give the meaning, sources, and branches of philosophy; general foundations of the Catholic and Protestant philosophies of education will be discussed; A detailed account of the Adventist Philosophy of education as explained in the Bible and the writings of Ellen G. White; It further discusses the philosophical understanding of education as explained by world philosophers including Socrates, Plato, Aristotle, St. Augustine, Immanuel Kant, William James, John Dewey, John Locke, Thomas Aquinas, John Amos Comenius, Ignatius Loyola, Jean J. Rousseau, Rene Descartes, Jean Paul Sartre, Fredrick W. Nietzesche, Karl Marx, Julius Nyerere, Kwame Nkrumah, Robert Mugabe and other in the light of such world views as philosophical thoughts including idealism, realism, naturalism, pragmatism, existentialism, Ujamaa, and the indigenous African thoughts.

EDPS 501 Psychology of Human Development and Learning 3 Credits

This course examines the physical and social changes of human growth including the prenatal period, infancy, babyhood, early childhood, late childhood, puberty, adolescence, and early adulthood. Discussion centers on each developmental stage, its goals, aspects factors influencing growth and development; self, parental, and cultural attitudes towards growth and developmental changes; Developmental tasks, a survey of the theories of social and cognitive development of a child including Erickson's psychosocial development theory, Freud's psychosexual development theory, and Kholberg's moral development theory; middle and old age; It explains process of teaching and learning based on the developmental stages;

Methods employed in educational psychology, individual differences, nature and types of learning, theories of learning (association theories, field theories, cognitive, modeling) motivation and learning, transfer of learning, efficient learning(minimizing forgetting and maximizing transfer), learning of attitude, value and skills; handling children with disabilities.

EDST 503 Statistics Applied to Education and Psychology 3 Credits

Statistics and statistical methods, the development of statistics, descriptive and inferential statistics, purpose of studying statistics, basic steps in statistical analysis, collection and presentation of data, measures of location, measures of variability or dispersion, moments, measures of skewedness and kurtosis, probability theory, probability distribution, sampling estimation procedures, hypotheses testing, correlation and regression analysis, analysis of variance.

EDTE 515 Principles and Methods of Teaching 3 Credits

This course focuses on effective teaching. It also includes an examination of student involvement in the classroom and application of the principles of teaching. Discussion includes the concept of a teacher, teaching and teaching effectiveness, planning and preparations to teach which includes general principles of scheme of work and lesson planning (detailed, semi-detailed and brief lesson plans), classroom management and other professional responsibilities. The course also highlights on different models of teaching and general methods of teaching, such as inductive and deductive methods, cooperative learning, role playing, jurisprudential inquiry, scientific inquiry, assignments, presentations, non-directive teaching, mastery and program instruction, direct instruction and simulation.

EDAD 521 Tests, Measurement and Evaluation 3 Credits

This course enables students to construct teaching objectives under cognitive, affective and psychomotor domains, and prepare essay and objective (multiple choice, matching type, true and false, and structured or simple recall) type tests that are meant to measure the attainment of the instructional objectives. The concepts of reliability, validity, and simple item analysis of the teacher made tests; interpreting data from standardized tests, test administration, grading and reporting are discussed. Need for a marking scheme. Special attention is focused on grading systems using such measures as the mean, mode, median, standard deviation and their interpretations. Grading using the absolute norms, normal curve (Five eight, nine and eleven-point scales of passing), percentile rank, Stanine, T-Score, and Z-Score are also emphasized.

EDTE 547 Educational Research Methodology 3 Credits

This course introduces students to the needs and functions of research in education. Emphasis is placed on practical application of basic research techniques and designs. The development of research problem, objectives, hypothesis, significance, limitations and delimitations, review of literature, theoretical and conceptual framework, various methods of data collection, descriptive and inferential data analysis and their interpretation. The following terms shall be emphasized: variables, sampling, research validity, research reliability,

degree of freedom, significance and non-significance of research findings. The use of computer in analyzing research findings may be highlighted.

EDTE 548 Educational Communication and Technology 3 Credits

This course examines technology applied to teaching. It presents the subject matter in the light of instructional technology (IT) as the theory and practice of design (instructional systems design, message design, instructional strategies), development (print technologies, audio-visual technologies, computer based technologies), utilization (media utilization, diffusion and innovation, implementation and institutionalization), management (project management, resources management, delivery system management, information management) and evaluation (problem analysis, criterion-references, measurement, formative evaluation) of processes and resources for learning.

EDTM 560 History Teaching Methods 3 Credits

This course deals with selected methods and instructional aids used in teaching history in secondary schools. Students will be taught how to develop scheme of work and lesson plans that incorporate creative methods of teaching, addressing the cognitive, affective, and psychomotor domains of teaching history. Some of the methods and techniques to be discussed will include inductive and deductive methods, lecture, discussion, group discussion, question and answer, study groups, panel discussions, brainstorming, role playing, simulation, project and assignment. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 561 Religious Education Teaching Methods 3 Credits

This course deals with selected methods and instructional aids used in teaching religious education in secondary schools. Students will be taught how to develop schemes of work and lesson plans that incorporate creative methods of teaching religion addressing the cognitive, affective, and psychomotor domains of religious instruction. Methods to be discussed will include inductive and deductive teaching, lecture, discussion, group discussion, question and answer, study groups, panel, role playing, project, assignment, expository, topical and life application. The course stresses the relevance of teaching religious education as a subject in upholding and instilling moral and social values in modern society. *Prerequisites: EDPS 501, EDTE 515, EDTE 545, and EDTE 548.*

EDTM 562 Geography Teaching Methods 3 Credits

This course deals with selected methods and instructional media materials used in teaching geography as a subject. Students will be taught how to develop schemes of work and lesson plans that incorporate creative methods of teaching geography addressing the cognitive, affective, and psychomotor domains of instruction. Methods discussed include inductive and deductive teaching, lecture, discussion, group discussion, question and answer, study groups, field work, demonstration, and assignment. The use of maps, field trips, photographs, and map reading are highly emphasized. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 563 Biology Teaching Methods 3 Credits

The meaning and goals of science education; the main viewpoints of science; the static and the dynamic view of science and their influence in science teaching; methods and

approaches of biology teaching at secondary school level; a process based approach to biology teaching; an examination of the science process skills with special reference to skills of observation, recording, classifying, synthesizing, evaluation, interpretation etc.; critical view of biology recent developments in the discipline and the welfare of mankind; historical development of the biology syllabus in Kenya; critical analysis of different biology syllabi used in secondary schools; planning for biology teaching the syllabus, schemes of work, lesson planning, lesson notes and record of work covered; Teaching strategies class experiments, demonstration field trips and biology projects; exemplified project work in biology; resources and facilities for teaching biology; botanical techniques and resource building for biology teaching; laboratory design and management; assessment and evaluation in biology; professional growth after college; membership in subject panels, biology teacher associations, biology journals are topics included in this course. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 564 Chemistry Teaching Methods 3 Credits

The meaning of science education; science as a dynamic process; scientific methods; (processes) and their applications in chemistry teaching; strategies of teaching chemistry; project work in chemistry; fabrication and improvisation of simple chemistry teaching materials; laboratory design, organization and materials management; health and safety in the chemistry laboratory; preparation of solutions; secondary school syllabus and relevant reading materials, schemes of work and lesson planning in chemistry; the role of chemistry in society; qualities of a good chemistry teacher; assessment in chemistry; Conducting KCSE chemistry experiments are topics to be covered. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 565 Physics Teaching Methods 3 Credits

This course discusses the meaning of science education; science as a dynamic process, scientific methods, brief history of physics; investigative techniques in physics Different types of tests, statistical analysis of tests, practical tests; practical testing; physics teaching in secondary schools; critical analysis of different physics syllabi used in secondary schools, scheme of work, lesson planning; teaching strategies class experiments, demonstration, projects, field trips; assessments in physics writing examinations, different types of tests, practical assessments in physics, project assessments with emphasis on investigative and problem solving approach, laboratory facilities and teaching materials laboratory equipment procurement and storage, laboratory design and safety and management, appropriate physics text books. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 566 Mathematics Teaching Methods 3 Credits

This course is an introduction to mathematics education philosophy and foundations of mathematics; general goals and objectives of mathematics; the 8-4-4 secondary school mathematics curriculum and syllabus; syllabus, scheme of work and lesson plans in mathematics; methods and techniques of teaching mathematics lessons; test preparations, administration and scoring; use of test results; learning and instructional theories in teaching mathematics lessons; models for teaching and learning the objects of mathematics; teaching aids, constructing a valid and reliable mathematics examination and the marking scheme, teaching practice; strategy of teaching mathematics, project work in mathematics. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 567 Business Education Teaching Methods 3 Credits

The course deals with various methods and strategies of teaching business studies, such as accounts, bookkeeping, office management, typing, computer, commerce, economics, and short hand. Students will be taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching business studies addressing the cognitive, affective, and psychomotor domains of instruction. Methods to be discussed will include inductive and deductive teaching, demonstration, lecture, discussion, drill, assignments, small study groups, demonstration, project, and others. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 568 Technology Teaching Methods 3 Credits

The course deals with various methods and strategies of teaching practical arts such as woodwork, construction, mechanics, electronics and others. Students will be taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching technological knowledge and practice addressing the cognitive, affective, and psychomotor domains of instruction. Methods to be discussed will include demonstration, lecture, discussion, drill, assignments, small study groups, project, and others. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 569 Agriculture Teaching Methods 3 Credits

This course deals with the teaching of agriculture at the secondary school level. Students will be trained in the preparations of teaching objectives in agriculture in all the three instructional domains; cognitive, affective and psychomotor. Students will be trained to plan and implement lessons and scheme of work based on the subject matter taught at the Kenyan secondary school level. Teaching methods applicable to the teaching of agriculture including experimentation, lecture, discussion, drill, assignments, demonstration, small study groups, field trips, field work, project and others are discussed. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 57 English Language Teaching Methods 3 Credits

This course deals with the development of language skills necessary for the teaching of the English language. The emphasis is on teachers-in-training developing a repertoire of strategies that enhance the learning of English as a second language. Students are expected to learn how to develop schemes of work and lesson plans based on the secondary school syllabus. Teaching methods applicable to the teaching of the English language such as role playing, simulation, lecture, discussion, recitation, drill, expository, story-telling, assignments, small study groups and others are discussed. Students are also involved in micro-teaching to sharpen their delivery skills. Cognizance is made of the fact that English language and literature are integrated in the Kenya Secondary School System. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 571 English Literature Teaching Methods 3 Credits

This course deals with the development of skills necessary for the teaching of literature in English. The teach trainees are expected to acquire the skills to guide their learners in appropriating literature as the creative use of language. Methods of presenting both oral and written literature are addressed.

Students are expected to learn how to develop schemes of work and lesson plans based on the secondary school syllabus. Trainees are exposed to the different methods of guiding their learners in critically analyzing literary works. Cognizance is made of the fact that literature and language are integrated in the Kenya Secondary School system. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 572 Kiswahili Language Teaching Methods 3 Credits

This course deals with the development skills necessary for the teaching of Kiswahili language. The emphasis is on teachers-in-training developing a repertoire of strategies that enhance a variety of learning in their students. Students develop schemes of work and lesson plans based on the secondary school syllabus with specific emphasis on Kiswahili language and literature. Teaching methods applicable to the teaching of language and literature such as role play, simulation, lecture, discussion recitation, drill, expository, story-telling, assignments, small study groups and others are discussed. Cognizance is made of the fact that literature and language in Kiswahili are integrated in Kenya secondary school system. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 574 French Teaching Methods 3 Credits

This course deals with the development of language skills necessary for the teaching of French as a second language. Emphasis is laid on teachers-in-training developing a repertoire of strategies that enhance a variety of learning methods in their students. Students develop schemes of work and lesson plans based on the secondary school syllabus with specific emphasis on French. Teaching methods applicable to the teaching of French language such as role playing, simulation, lecture, discussion, recitation, drill, expository, story-telling, assignments, small study groups and others are discussed. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 575 Home Science Teaching Methods 3 Credits

This course deals with the teaching of home science at the secondary school level. Various methods and strategies are used in teaching aspects of food and nutrition, life and child development, clothing construction, livelihood and consumer science. Students will be trained in the preparations of teaching objectives in Home Science in all three instructional domains; cognitive, affective and psychomotor. Students will be trained to plan and implement lessons and scheme of work based on the Kenyan Secondary School level syllabus. Teaching methods applicable to the teaching of home science including experimentation, lecture, project, discussion, drill, demonstration, assignments, small study groups, project, field work and others are discussed. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTM 578 Special Methods in Teaching Computer Science 3 Credits

The course deals with various methods and strategies of teaching computer knowledge to pupils and students in a school setting. It covers practical and theoretical approaches to imparting knowledge on the hard and software aspects of the computer and its practical applications in the day-to-day life. Students will be taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching practical computer knowledge addressing the cognitive,

affective, and psychomotor domains of instruction. Methods to be discussed will include demonstration, lecture, discussion, drill, assignments, small study groups, project, and others. *Prerequisites: EDPS 501, EDTE 515, EDTE 545 and EDTE 548.*

EDTE 590 Teaching Practice **4 Credits**

This course gives the candidate for the post Graduate Diploma in Education an actual experience in the classroom teaching and school environment in a secondary school for a period of 12 to 13 weeks. The practicing teacher prepares, teaches and evaluates the work of students under the supervision of a cooperating teacher, and the lecturers from the UEAB School of Education, Humanities and Social Sciences. The candidate also gets an exposure to the aspect of actual school administration in the

school environment by being involved in all activities of the school in a particular school term of study. *Prerequisites: EDPS 501, EDTE 515, EDTE 545, EDTE 548 and two courses from EDTM 560 to EDTM 578.*

EDUC 531 Curriculum Planning and Development **3 Credits**

This course is an introductory study of principles of curriculum and instruction. Topics to be discussed are about the patterns of curriculum organization, evaluation, implementation, and the relationship of educational objectives to the educational plans. Strategies applied in the process of designing a new

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

FACULTY

Mambo, M., PhD. - Ag. Head of Department
Amenya, H., PhD.
Angwenyi, E., MSA., PhD in progress
Baongoli, M., MA., PhD in progress
Barno, H., MPhil., PhD in progress
Kilonzo, B., MA., PhD in progress
Kolum, S., BA. MA. In progress
Malayi, A., MA., MPhil., PhD in progress
Mooka, E., PhD.
Musema, L., MA., PhD in progress
Mwita, M., PhD.
Ochuodho S., MA., PhD in progress
Omari, H., MSc., PhD in progress
Omari, N.P., MEd., PhD in progress
Orenge, W., MSc.
Ouko, J., BA., MA in progress
Oyiengo, J., MA., PhD in progress
Komollo, A., MA.

Email: hod_hss@ueab.ac.ke

PHILOSOPHY

The Department of Humanities and Social Sciences holds that God is the creator and sustainer of the universe and life and indeed the source of knowledge. The entrance of sin caused man's alienation from God; therefore, the knowledge of Humanities and Social Sciences, based on Christian Education through the process of integration of faith and learning, is to restore man's relationship with God.

MISSION

To provide and advance a holistic quality Christian Education, which develops men and women to be earnest seekers of truth and equipped with appropriate knowledge, skills and attitudes in Humanities and Social Sciences for the service of God and Humanity.

VISION

To be a center of excellence in higher education and research producing experts in Humanities and Social Sciences who are equipped with moral virtues.

DEGREES OFFERED

1. Bachelor of Arts in Counseling Psychology
2. Bachelor of Arts- in Development Studies
3. Bachelor of Arts in English
4. Bachelor of Arts in French
5. Bachelor of Arts/Science in Geography
6. Bachelor of Arts in History
7. Bachelor of Arts in Kiswahili
8. Bachelor of Arts in Journalism and Mass Communication with options:
 - a. Electronic Media Specialization
 - b. Print Media Specialization
 - c. Public Relations and Advertising
9. Bachelor of Arts in Music
10. Bachelor of Music in Music Education (BMME)
11. Bachelor of Arts in Social Work

MINORS OFFERED

1. Minor in Counseling Psychology
2. Minor in Development Studies
3. Minor in Electronic Media
4. Minor in English Language/Linguistics
5. Minor in English Literature
6. Minor in Environmental Studies
7. Minor in French
8. Minor in Geographic Information Systems
9. Minor in Geography
10. Minor in Health Psychology
11. Minor in History
12. Minor in Kiswahili
13. Minor in Music
14. Minor in Political Science
15. Minor in Print Media
16. Minor in Psychology
17. Minor in Public Relations and Advertising
18. Minor in Social Work

EXPECTED OUTCOMES

Counseling Psychology

By the end of the program the students should be able to:

1. Define terminologies applied in psychology including psychology, counseling, guidance, growth, development, adjustment, intelligence, testing, measurement, evaluation, psychometrics, and psychoanalysis;
2. Identify the branches of psychology as an area of study;
3. Explain the history of the development of psychology and counseling as academic areas of study;
4. Discuss concepts and major theories of human behavior, growth, personality and learning;
5. Identify major theories of counseling a psychotherapy;
6. Use appropriate counseling techniques in the process of helping clients resolve problem situations;
7. Carry out group and individual counseling on social, educational, economic and personal concerns;
8. Organize counseling sessions on drug abuse (dependency), vocational (career) counseling, adolescent counseling, academic counseling, gerontology, crisis intervention a cross-cultural issue;
9. Establish counseling relationships (rapport) between counselors and clients;
10. Relate the influence of genetic and environmental factors on human behavior;
11. Demonstrate qualities of an effective psychologist/counselor such as honesty, punctuality, respect, confidentiality hard work, self-control and truthfulness;
12. Practice professional ethics for psychologist counselors;
13. Demonstrate an application of counseling in a variety of settings such as schools, hospitals, rehabilitation centers, counseling centers, VCT centers, churches and prisons;
14. Analyze client problem situations by using appropriate testing (psychological) instruments;
15. Apply a Christian approach to counseling;
16. Carry out research aimed at improving counseling services;
17. Organize, administer and manage counseling services;
18. Pursue graduate a post-graduate programs to improve their counseling skills.

Development Studies

By the end of the program, the students should be able to:

1. Develop and promote mental and intellectual capacity to explain and justify the human- environment relationships, and demonstrate this through Christian life practices for community and society's wellbeing and progress;
2. Build capacity and inculcate appropriate attitude for adequate and efficient design, implementation and management of development projects in culturally diverse environments within the framework of partnership between government, non- governmental agencies and citizenry;
3. Prepare for postgraduate studies and advanced research in development studies;
4. Impart the principles and practice of job creation and productivity enhancement.

English

By the end of the degree program in English language and Literature, the student should be able to:

1. Define such terms as language, literature, poetry, prose, essay and linguistics;
2. Explain the Biblical meaning, origins and functions of language;
3. Explain the historical development of the English language and literary writing in England, America, Australia and East Africa;
4. Describe the use of a language as an instrument of thought expression and communication;
5. Analyze information communicated through verbal expressions and in writing;
6. Identify parts of speech in sentence structures;
7. Identify grammatical words, lexical words, phonological words, semantic words and the process of word formation;
8. Critique literary writing of African, American and European authors in literature;
9. Apply theories of literature and stylistics to the reading literary texts;
10. Write compositions using common and uncommon expressions in English language;
11. Submit a research projects with such topics as the introduction, review of literature, theoretical frame work, presentation of data, interpretation of data, summary, conclusion and recommendations;
12. Demonstrate in writing a mastery of English grammar through essays, poetry and news reporting;
13. Deliver a thirty-minute speech in English language;
14. Pursue graduate studies in linguistics or literature.

French Program

By the end of the degree program in French, the student should be able to:

1. Read and write a letter, essay, short speech and poem in French;
2. Explain the Biblical meaning, origins and functions of language;
3. Explain the fundamentals of French grammar, conversation, comprehension and conversational skills;
4. Use French International Phonetic Alphabet by giving out correct pronunciations, dictations, reading loud, listening, role play, dialogues and expositions;
5. Discuss phonological structure, orthography, grammar, and vocabulary;
6. Explain the origins and spread of French in Europe, the Americas, Africa and Asia;

7. Identify principles and concepts of areas and branches of contemporary French language;
8. Analyze and Critique French literary work, including, style and stylistic, schools of styles, theories and approaches;
9. Identify and use French semantic and lexicon;
10. Read and interpret French literature written in Africa, Europe and the Americas;
11. Demonstrate in writing and speech specialized in technical language related to hotel, tourism, telephone calls, fax messages, welcoming guests, dishes and excursion as expressed in French language and culture;
12. Carry out a research or project in French language;
13. Give out at least a thirty-minute speech in French;
14. Pursue graduate studies in French language.

Note: Students majoring or minoring in French shall undertake their attachment in a French-speaking country, under the academic guidance of their major advisor.

Geography and Environmental Studies

By the end of the program, the students should be able to:

1. Be endowed with critical knowledge on the global view of an organized earth, its resource opportunities and challenges with a view to optimize the management and utility of the opportunities and mitigate the challenges and issues that arise for the good of humankind;
2. Impart geographical, environmental and Development Studies knowledge and skill in interpreting spatial phenomena in order to enhance spiritual development of and reinforce the students' faith in God as the creator, His wonderful creation and human stewardship of the world;
3. Develop ability to locate and appraise the availability, quality and quantity and use of natural resources in the environment and to provide a sound explanation for their rational utilization, management and sustainability;
4. Develop ability to compare and contrast physical and human characteristics of the world in order to appreciate the nature and interdependence of the world peoples, their social organizations, economic activities and their impact on the environment.

History Program

By the end of the program, the students should be able to:

1. Appreciate the value of historical knowledge, historical thought, historiography and trends in historical development;
2. Have basic intellectual tools to help them think critically and creatively about basic historical questions and contemporary issues;
3. Prepare for post-graduate studies and advanced research in the field of history and in other social sciences;
4. Organize and express their thoughts clearly and coherently both in writing and orally.
5. Explain and critique the historical schools of thought that have shaped scholarly understanding of their fields of study.

Journalism and Mass Communication Program

By the end of the degree program in Journalism and Mass Communication, the student should be able to:

1. Give the meaning, functions and types of communication, journalism, and mass communication;
2. Outline media tools as used in the media ministries in the Seventh-day Adventist Church focusing on the print and electronic media;

3. Analyze the relationship between mass media, culture and society;
4. Examine the important legal and ethical issues that affect professional journalists in electronic media, print media, public relations and advertising by integrating ethical values to their messages as they share information with their respective audiences;
5. Gather information using different tools of modern technology, as well as develop and deliver messages;
6. Work in radio or television broadcasting, print media, public relations and advertising;
7. Apply basic numerical and statistical concepts in mass media research;
8. Conduct research and evaluate information by methods appropriate to the communications professions in which they work by using appropriate research methods to answer relevant questions in mass communication;
9. Pursue postgraduate studies in mass communication;
10. Teach mass communication at middle level media training colleges.

Kiswahili Program

By the end of the degree program in Kiswahili language and literature, the student should be able to:

1. Define such words as Kiswahili, Swahili, Mswahili, Lugha, and other terminologies associated with Kiswahili as a language;
2. Explain the historical backgrounds of Kiswahili language and its significance in the nations of Africa and Eastern Europe;
3. Explain the Biblical meaning, origins and functions of language;
4. Discuss historical development of Kiswahili language in Tanzania, Kenya, Uganda and Congo before and after World II;
5. Explain the application of phonetic science to the process of acquiring and transmitting proper pronunciation of Kiswahili words as a Bantu language;
6. To examine deep and surface structure of Kiswahili words;
7. Examine the theory, practice and techniques of translating and interpreting literary texts from Kiswahili to English and from English to Kiswahili;
8. Interpret Kiswahili syntax theories including: traditional grammar, structuralism, transformational generative grammar, structural grammar, dependency grammar, government and binding, systemic and stratification grammar;
9. Analyze and interpret traditional short stories, modern short stories in newspapers, and specific short stories by selected authors;
10. Examine syntax structure of Kiswahili sentences by exploring words, groups, clauses, phrases, and word order;
11. Discuss theories and approaches of various scholars on the meaning and function of Kiswahili language and literature;
12. Demonstrate Kiswahili oral mode of transmission of knowledge and culture by examining its genres;
13. Read and critique literary writings of at least five major authors;
14. Carry out a research or project in Kiswahili language;
15. Give out at least a thirty-minute speech in Kiswahili;
16. Pursue graduate studies in Kiswahili.

Music Program

By the end of the degree program in music, the learner should be able to:

1. Expound concepts that constitute music which include elements and structure of musical composition;

2. Sing from staff notations using different systems of solmization;
3. Identify, analyse and compose music with the principles of voice leading and part writing with various harmonic concept and syntax;
4. Transcribe, compose and arrange songs fitting various ages and groups;
5. Identify and classify music to the different musical periods, composers, and genre based on its characteristics;
6. Carry out structural and comparative analysis of different genre and form of music from different musical periods;
7. Explain the principles and concepts of music for worship founded on the Biblical principles and Spirit of Prophecy;
8. Give the role of music in personal life, school programs, public evangelism, church service, and family worship;
9. Differentiate and provide the appropriate music for church services and various community functions;
10. Select materials relevant to worship services;
11. Lead a church, school or community choir;
12. Accompany church congregation with piano and other musical instruments;
13. Create materials for worship from African/ local music heritage by critical – contextualization methods;
14. Facilitate in training music leaders, pianists/ instrumentalist and church choristers.;
15. Perform with at least two applied performance skill in concentration and minor area for concert purpose and worship service;
16. Teach in concentration area of the applied performance skill with wide range of knowledge in literature, repertoire and materials;
17. Play music using different indigenous instruments;
18. Collect African music and use it for teaching materials;
19. Present seminar in music which includes areas of church music, musicology, history and literature, performance practice and music education;
20. Carry out a research on any one aspect of music;
21. Organize and participate in music programs;
22. Pursue further studies in music.

CAREER OPPORTUNITIES IN COUNSELING PSYCHOLOGY

Counseling, as a profession, prepares the student for possibilities in social services, employment agencies, industry, hospitals, educational institutions, clinics rehabilitation centers, private practice, NGOs, public and international organizations, business organizations, international organizations, church organizations, etc.

CAREER OPPORTUNITIES IN COUNSELING PSYCHOLOGY

Counseling, as a profession, prepares the student for possibilities in social services, employment agencies, industry, hospitals, educational institutions, clinics rehabilitation centers, private practice, NGOs, public and international organizations, business organizations, international organizations, church organizations, etc.

CAREER OPPORTUNITIES IN HISTORY, GEOGRAPHY, AND DEVELOPMENT STUDIES

Courses are designed to provide men and women with knowledge essential in various employments or careers. History prepares students for careers in government service, positions with local and national archives, museums, research,

law, print and electronic media journalism, private and public sectors, NGOs, politics, and creative writing and secondary schools teaching among other careers. Geography and Environmental Studies prepare students for careers in physical and land use planning, demography, meteorology, climatology, environmental and resource management, the military, Civil Service, NGOs, foreign missions, GIS as well as teaching in secondary etc. Development Studies Program prepares students to be facilitators of development projects besides serving as experts in the various aspects of the development process.

CAREER OPPORTUNITIES IN SOCIAL WORK

Clinical Social Worker; Child Welfare Social Worker; School Social Worker; Medical Social Worker; Mental Health Counselor; Substance Abuse Counselor; Community Organizer; Policy Analyst/Advocate; Geriatric Social Worker; Disaster Relief Social Worker; Criminal Justice Social Worker; International Social Worker; Hospice and Palliative Care Social Worker; Researcher/Evaluator; Forensic Social Worker; Family Therapist; Rehabilitation Counselor; Youth Counselor; Housing Specialist; Adoption Counselor; Domestic Violence Advocate; Employee Assistance Program (EAP) Counselor; School Counselor; Refugee Resettlement Worker; Homeless Shelter Coordinator; Human Rights Advocate; Community Health Worker; Public Health Educator; Disability Rights Advocate; LGBTQ+ Solution Specialist.

CAREER OPPORTUNITIES IN LANGUAGES: ENGLISH, KISWAHILI AND FRENCH

Proficiency in language opens doors to diverse fields such as language teaching, training and education ; translation and interpretation; content creation and writing; tourism and hospitality; international business; media and communication; international development; diplomacy and international relations; culture and arts; business and trade; academia and research; government and public administration; non-profit organizations and NGOs; language services and localization; marketing and advertising; public relations and communications; healthcare and medical interpretation; legal and judicial interpretation; customer service and support; international travel and aviation; journalism and broadcasting; publishing and editorial services; cultural exchange programs; diplomatic missions and consular services; multilateral organizations and international agencies; language technology and software development; conference and event management; market research and data analysis; and academic publishing and editing.

CAREER OPPORTUNITIES IN JOURNALISM AND MASS COMMUNICATION

Graduates will be able to pursue careers in the following fields: teaching (English, French, Kiswahili, literature, linguistics...) translation, interpretation, writing, editing (copy-editing, design editing, typesetting, proofreading, revising....), communication (TV anchoring, TV reporting, radio reporting, radio announcing, TV announcing, news reading, anchoring, freelance journalism, freelance correspondence...), law, publishing (book-publishing, newspaper-publishing, magazine-publishing, electronic-publishing, desktop-publishing...), film industry, acting, playwriting, language consultancy, linguistics, academics, lexicography, researching, reporting, public relations specialist, secretariat (administrative secretary, diplomatic secretary, bilingual secretary, private assistant...), marketing, advertising, international relations, diplomacy, hotel industry, tourism, research etc.

CAREER OPPORTUNITIES IN MUSIC

A graduate in music and/or music education has a wide variety of career opportunities. There are opportunities for careers such as music teacher in schools or teacher training colleges; private tutor; composers; conductors; music director; musician; producer; church musicians; singer or instrumentalist in an orchestra or band.

ENTRANCE REQUIREMENTS

Direct Entry

Development Studies, Counselling Psychology or Social Work

Admission into the Development Studies program and the Counseling Psychology program require that a candidate meets the basic requirements of any of the degree programs offered at UEAB

English, Kiswahili, French, or Journalism and Mass Communication

In addition to meeting University entrance requirements, a minimum grade of C+ in English, Kiswahili, and/or French respectively in KCSE or its equivalent is required.

Geography or Environmental Studies

Students wishing to take Geography and Environmental Studies are expected to have passed Geography, Math and/or other science subjects at their KCSE levels. Otherwise, they are advised to take remedial Mathematics courses, such as MATH 107.

History

Students wishing to pursue studies leading to a Bachelors' degrees in History must have a minimum grade of a C+ or better in respective subjects at the KCSE, or its equivalent.

Music

Students who wish to major in music must have a departmental interview, placement examination, and audition in order to evaluate their qualification, and potential. Students who have successfully completed the music minor requirements may qualify for the award of the Bachelor of Arts in Music Performance or Bachelor of Music in Music Education degree by completing the rest of the requirements for a full degree program shown in this bulletin. Prospective music students should possess musicality, primary and secondary performing skills, and a knowledge of elementary music theory and should give evidence of previous serious music study. A pass in music at secondary school certificate level is an added advantage.

Interdepartmental Transfer Counselling Psychology

Those transferring from other departments to the Counseling Psychology program are required to have a minimum of C plain in PSYC 101 (Introduction to Psychology) and SOCI 121 (Introduction to Sociology). Students who join the counseling program after doing PSYC 101 will only need to do PSYC 111 in addition. (PSYC 101 to take the place of PSYC 110.)

English, Kiswahili, French or Journalism and Mass Communications

Students transferring from another department into English, Kiswahili, French or Journalism and Mass Communication must have a grade of C+ in English, Kiswahili, and/or French respectively in KCSE or its equivalent.

French

A student with no prior knowledge of French language may minor in French. However, the student must begin at the General Requirement beginner level French course, FREN 004 Beginning French

Music

A student with no prior musical training may minor in music. However, if the student shows excellent growth and potential he/she may be allowed to change to a major by completing the process of majoring in music.

GRADUATION REQUIREMENTS

English, French, Kiswahili or Journalism and Mass Communications

1. A minimum cumulative GPA of 2.00
2. A minimum overall GPA of 2.25 is required for a major in English, French and Kiswahili.
3. A minimum GPA of 2.00 for a minor
4. Those majoring in English language, Kiswahili, or French must take a minor in any of the given options.
 - a. An English major can take a minor in Journalism and Mass communication or any other relevant area of their choice
 - b. A French major may take a minor of at least 30 credit hours in the languages, Journalism and Mass Communication, Hotel and Hospitality Management, or any other relevant area of their choice.
 - c. A Journalism and Mass Communication major can take a minor in Kiswahili, French (from scratch option available), or English Language.

History, Geography, Developmental Studies or Counselling Psychology

1. An overall, cumulative GPA of 2.00 or better.
2. A GPA of 2.25 is required for the major area.
3. A minor chosen in consultation with the Major Advisor or the Department Chair.

BA Music and Bachelor of Music in Music Education (BMME)

An overall cumulative GPA of 2.50.

1. A GPA of 2.67 is required for the concentration and the core. A minimum grade of B- for each course in the concentration and the core is required.
2. A minimum of 136 credits for Bachelor of Arts in Music Performance, and a minimum of 142 credits for Bachelor of Music in Music Education.
3. A pass in grade five of both Music Theory and one's major instrument (either voice or piano) in the Associated Board of Royal Music Schools (ABRSM) examinations.

COURSE REQUIREMENTS

BACHELOR OF ARTS IN COUNSELING PSYCHOLOGY

SUMMARY

General Education Requirements	39
Core	55
Cognates	13
Electives	6
Minor	30
Total	143 Credits

GENERAL EDUCATION REQUIREMENT COURSES

39 Credits

See "General Education Requirement" section for details. Counseling Psychology majors should not choose PSYC 101 Introduction to Psychology from the Social Sciences section as the contents of this course are covered in PSYC 110 General Psychology I and PSYC 111 General Psychology II

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1

FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		39

CORE COURSES 55 Credits

Code	Course Title	Credits
CPSY 122	Foundation of Counseling	3
CPSY 126	HIV/AIDS Counseling	2
CPSY 150	Techniques of Counseling	3
CPSY 262	Abnormal Psychology	2
CPSY 270	Ethics in Counseling	2
CPSY 275	Christianity and Counseling	3
CPSY 295	Premarital Counseling	3
CPSY 374	Crisis Counseling	3
CPSY 385	Child and Adolescent Counseling	3
CPSY 386	Group Counseling	2
CPSY 387	Marriage and Family Counseling	3
CPSY 391	Theories of Personality	2
CPSY 393	Concepts of Chemical Dependency	3
CPSY 396	Depression and Stress Management	2
CPSY 397	Current Theories in Counseling and Physiotherapy	3
CPSY 398	Organizational Psychology	2
CPSY 480	Counseling Research Methods	3
CPSY 479	Psychological Testing and Assessment	3
CPSY 484	Cross-Cultural Counseling	2
CPSY 489	Counseling Practicum	2
PSYC 110	General Psychology I	2
PSYC 111	General Psychology II	2
Total		55

COGNATE COURSES 13 Credits

Code	Course Title	Credits
DEST 100	Concepts and History of Development	2
RELT 426	Writings and Philosophy of E.G White	3
SWCA 356	Child and Spouse Abuse	2
SWHS 473	Human Sexuality	3
EDPC 238	Human Growth and Development	3
Total		13

ELECTIVE COURSES 6 Credits

Code	Course Title	Credits
CPSY 119	Principles of Self Esteem	2
CPSY 175	Career Choice	2
CPSY 255	Counseling and Aging	2
CPSY 280	Academic Counseling	2
CPSY 331	Counseling Services Management	2
CPSY 333	Chemical Dependency in Diverse Population	2
CPSY 465	Topics in Counseling	2

BACHELOR OF ARTS IN DEVELOPMENT STUDIES

SUMMARY

General Education Requirements	30
Core	67
Cognates	6
Electives	5
Minor	30
Total	137-143 Credits

EXEMPTIONS FOR UPGRADING STUDENTS FROM DIPLOMA

Upgrading students from UEAB's Diploma in Community Development program will be exempted from the following courses:

Code	Course Title	Credits
INSY 107	Information Technology Today	2
ENGL 106	Speech Communication	1
DEST 250	Gender Issues in Community Development	3
ENVI 227	Environment and Society	2
RELT 207	Christian Beliefs	3
DEST 071B	Disaster Preparedness, Management and Mitigation	3
DEST 240	Community Leadership and Development	3
DEST 170	Communication and Development	3
Total		20

Similar or near similar-titled courses covered in UEAB's Diploma program but coded as Level three and four in the Development Studies Degree program will not be exempted for upgraders.

Degree Students of Development Studies are exempted from the following General Education Requirement courses:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
HIST 119	Issues in Development Studies	2
HLED 110	Health Principles	1
ENVI 227	Environment and Society	2
INSY 107	Information Technology Today	2
ENGL 106	Speech Communication	1
MGMT 103	Basic Management and Entrepreneurial Skills	2
Total		12

GENERAL EDUCATION REQUIREMENT COURSES

37 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili / Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2

OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		37

CORE COURSES

66 Credits

Code	Course Title	Credits
DEST 100	History, Theories and Concepts of Development	3
DEST 101	Politics in and of Development	3
DEST 121	Culture and Development	3
DEST 215	Human Rights	3
DEST 240	Community Leadership and Development	3
DEST 250	Gender Issues in Development	3
DEST 265	Environmental Impact Assessment	3
DEST 280	NGOs: Management and Leadership	3
DEST 307	Research Methods for Development	3
DEST 350	Conflict Management and Resolution	3
DEST 370	Project Planning, Implementation, Monitoring and Evaluation	4
DEST 373	Disaster Preparedness, Mitigation and Management	3
DEST 375	Rural Development	3
DEST 380	Studies in Community Health	3
DEST 390	Principles of Population and Demography	3

DEST 410	Proposal and Grant writing	3
DEST 435	Entrepreneurship Skills and Financial Accountability	2
DEST 450	Ethics in Development	3
DEST 457	Studies on Displaced Persons	3
DEST 470	Sustainable Development	3
DEST 485	Research in Development Studies II	3
DEST 490	Field Attachment	3
Total		66

COGNATE COURSES

5 Credits

Code	Course Title	Credits
ECON 201	Principles of Economics	2
GEOG 401	Statistics and Computer-Aided Data Analysis in Social Sciences	3
Total		5

ELECTIVE COURSES

6 Credits

Code	Course Title	Credits
DEST 170	Communication in development	2
DEST 260	Co-Operative and other Social Movements in Development	2
DEST 363	Urbanization and Development	2
DEST 386	The Mass Media in Development	2
DEST 392	Development Perspectives of Globalization	2
DEST 396	Aid and Development	2
DEST 403	Human Resource Development and Management	3
DEST 405	Developments in the Legal Framework	2
DEST 427	Regional Development Planning	2

BACHELOR OF ARTS IN ENGLISH LANGUAGE AND LITERATURE

SUMMARY

General Education Requirements	39
Core	71
Electives	3
Minor	30
Total	143 Credits

Students majoring in English Language and Literature take LITE 151 Introduction to Literary Appreciation as a part of their core requirements

GENERAL EDUCATION REQUIREMENTS COURSES

39 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0

MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 1119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		39

CORE COURSES 71 Credits

Code	Course Title	Credits
ENGL 130	Introduction to the Study of Language	3
ENGL 148	English Grammar and Usage I	3
ENGL 216	Origins and Development of English	3
ENGL 217	Phonetics and Phonology	3
ENGL 218	Morphology and Syntax	3
ENGL 222	Theory, Practice of Translation and Interpretation	3
ENGL 244	Discourse Analysis	3
ENGL 305	Semantics and Pragmatics	3
ENGL 342	Sociolinguistics	3
ENGL 346	English for Specific Purposes	3
ENGL 347	Second Language Acquisition	3
ENGL 435	Editing Skills	3
ENGL 443	Writing for the Media	3
ENGL 465	Principles of Creative Writing	3

ENGL 469	Research Project/Seminar	3
ENGL 480	Language and Communication Attachment	3
LITE 151	Introduction to Literary Appreciation	2
LITE 154	Introduction to Oral Literature	3
LITE 159	Themes in East African Literature	3
LITE 165	Stylistics	3
LITE 260	Children's Literature	3
LITE 346	Introduction to Literary Theory and Criticism	3
LITE 348	European Literature	3
LITE 455	Theory, Fieldwork and Research Skills	3
Total		71

ELECTIVE COURSES 3 Credits

Code	Course Title	Credits
COMM 230	News Gathering and Reporting	3
ENGL 114	Introduction to the Description of English	3
ENGL 219	English Grammar and Usage II	3
ENGL 302	Language Policy and issues	3
ENGL 358	Business English	3
ENGL 442	Language and Gender	3
ENGL 445	Historical and Comparative Linguistics	3
ENGL 450	Lexicography and Lexicology	3
ENGL 456	Varieties of English	3
LITE 350	African American Literature	3
LITE 363	The African Novel	3
LITE 364	Women Writers	3
LITE 449	Modern Poetry	3
LITE 450	Theatre Arts	3
LITE 451	Major Author	3
LITE 466	Research/Creative Writing Project	3

BACHELOR OF ARTS IN FRENCH

SUMMARY

General Education Requirements	32
Core	52
Cognates	18
Electives	12
Minor in another area	30
Total	144 Credits

General Education Requirement courses exempted for this BA French program are as follows:

FREN 004	French for Beginners	3
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Science	2

GENERAL EDUCATION REQUIREMENTS COURSES 32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFT 120	Keyboarding	0

MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111/ MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101/ SOC 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES 52 Credits

Code	Course Title	Credits
FREN 104	Introduction to French Language	3
FREN 112	Structure of the French Language	3
FREN 130	Oral Expression and Aural Comprehension	3
FREN 131	Written Expression and French Grammar I	3
FREN 210	Introduction to General Linguistics in French	3
FREN 220	French Phonetics and Phonology	3
FREN 230	Panorama of Francophone Literature	3
FREN 310	French Oral Literature	3
FREN 315	French for General, Academic and Professional Purposes	3
FREN 327	Written Expression and French Grammar II	3
FREN 334	Applied Linguistics	3
FREN 336	Translation and Interpretation	3
FREN 421	French Morphology and Syntax	3
FREN 435	The French Novel and Philosophical Works	3
FREN 454	Academic Research: Basic Principles and Methods	3
FREN 455	Project Paper	3
FREN 460	Attachment- French Language and Communication	4
Total		52

COGNATE COURSES 18 Credits

Code	Course Title	Credits
HTMG 101	Introduction to hotel and Hospitality Operations and Management	3
EDTE 210	Curriculum Development	3
MKTG 240	Customer Care and Relationship Management	3
EDTE 255	Principles and Methods of Teaching	3
DEST 280	NGOs Management and Leadership	3
HTMG 422	Tourism Operations	3

ELECTIVE COURSES 9 Credits

Code	Course Title	Credits
FREN 140	History and Modern Trends of the French Language	3
FREN 211	Introduction to translation	3
FREN 241	Culture and Civilization of France	3
FREN 225	Introduction to French Literature and Literary Analysis	3
FREN 335	Caribbean Literature	3
FREN 337	Introduction to French Literature	3
FREN 340	Textual Analysis in French	3
FREN 414	Semantics and Lexicology	3
FREN 415	Sociolinguistics in French	3
FREN 430	French for the Hotel, Tourism and Travel Industries	3
FREN 440	French for Management and Administration	3
FREN 445	French Drama	3
FREN 446	Introduction to Francophone African Literature	3
FREN 450	French Poetry	3

BACHELOR OF ARTS/SCIENCE IN GEOGRAPHY

SUMMARY

General Education Requirements	41
Core	55
Electives	15
Minor	30
Total	141 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 41 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2

EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		41

CORE COURSES

55 Credits

Code	Course Title	Credits
GEOG 101	Introduction to Geography	3
GEOG 105	A Survey of World Geography	3
GEOG 111	Fundamentals of Physical Geography I	3
GEOG 121	Fundamentals of Human Geography I	3
GEOG 130	Introduction to Cartography, Mapwork and Land Surveying	3
GEOG 211	Fundamentals of Physical Geography II	3
GEOG 221	Fundamentals of Human Geography	3
GEOG 311	Geography of Kenya	3
GEOG 312	Geography of Development	2
GEOG 310	Geography of Kenya and the East African Region	3
GEOG 323	Remote Sensing	3
GEOG 334	The Arid and Semi-Arid Lands	3
GEOG 355	Geographic Information Systems	3
GEOG 401	Statistics and Computer-Aided Data Analysis in Social Sciences	3
GEOG 410	Research Methods in Social Sciences	3
GEOG 430	Meteorology and Climatology	3

GEOG 450	Selected Topics in Geography	2
GEOG 495	Geographical Attachment	3
GEOG 498	Independent Research Project in Geography	3
Total		55

ELECTIVE COURSES

15 Credits

Students are free to choose electives from either option A or B but with at least 12 credits from one option and at least 3 Credits from the other.

OPTION A

Code	Course Title	Credits
GEOG 210	Economic Geography	3
GEOG 224	Urbanization, Planning and Land Survey	2
GEOG 226	The geography of Tourism and Leisure	3
GEOG 314	Geography of Africa	3
GEOG 315	Population Geography	3
GEOG 321	Cultural and Behavioral Geography	3
GEOG 326	Agricultural Geography	3
GEOG 348	Urban Rural Settlement Geography	3
GEOG 400	Geographical Perspectives on Modern Society	3
GEOG 412	Urbanization in Developing Countries	3
GEOG 414	Location Theory and Land Use Analysis	3
GEOG 416	Transport Geography	3
GEOG 455	People, Land and Food	3
GEOG 470	Demography	3

OPTION B

Code	Course Title	Credits
GEOG 328	Geomorphology	3
GEOG 332	Biogeography	3
GEOG 358	Medical Geography	3
GEOG 411	Geography of Natural Hazards	3
GEOG 415	Soil Geography	3
GEOG 417	Oceanography	3
GEOG 421	Applied Land Use and Potential	3
GEOG 422	Computers Science for Geographers	3
GEOG 425	Geo-Data Processing	3
GEOG 435	Applied Geomorphology	3
GEOG 440	Advanced environmental Remote Sensing	3

BACHELOR OF ARTS IN HISTORY

SUMMARY

General Education Requirements	41
Core	54
Cognates	6
Electives	12
Minor	30
Total	143 Credits

GENERAL EDUCATION REQUIREMENT COURSES

41 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1

KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		41

CORE COURSES

54 Credits

Code	Course Title	Credits
HIST 120	History of Kenya I to 1900	3
HIST 121	History of Kenya II since 1900	3
HIST 130	History of Africa I before 1900	3
HIST 131	History of Africa II since 1900	3
HIST 200	History of USA I	3
HIST 201	History of USA II	3
HIST 225	History of Europe 1789-1919	3
HIST 227	History of Europe 1919-1990	3
HIST 230	History of USSR 1917-1991	3
HIST 305	Fundamentals of Historiography	3
HIST 313	Themes in East African History	3

HIST 333	Economic History of Africa	3
HIST 411	Selected Topics in Modern African History	3
HIST 415	History of Science and Technology	3
HIST 421	Imperialism, Colonialism and Nationalism	3
HIST 445	Historical Research Methods	3
HIST 450	Topics in History of Post-Independent Kenya	3
HIST 490	Independent Study	3
Total		54

COGNATE COURSES

6 Credits

Code	Course Title	Credits
GEOG 105	A Survey of World Geography	3
GEOG 401	Statistics and Computer-Aided Analysis in Social Sciences	3
Total		6

ELECTIVE COURSES

12 Credits

Note: Choose only one course from HIST 314 to HIST 316

Code	Course Title	Credits
ARCH 200	Archaeology of East Africa	3
ARCH 220	Foundations of archaeology	3
ARCH 310	Studies on Origins of Modern Man and Society	3
HIST 217	History of Latin America	3
HIST 314/ HIST 315/ HIST 316	History of North Africa since 1890/ History of West Africa since 1800/ History of Central and Southern Africa	2
HIST 410	Introduction to Environmental History	2
HIST 425	History of Conflict and Diplomacy in Africa from 1960s	3
HIST 450	Topics in History of Post - Independent Kenya	3
HIST 451	Topics in History	2
HIST 455	African Diaspora and Pan-Africanism	3
HIST 475	Intellectual History of Africa	3
RELH 180	History of Adventist Church	2

BACHELOR OF ARTS IN KISWAHILI

SUMMARY

General Education Requirements	39
Core	59
Electives	9
Minor	30
Total	137 Credits

GENERAL EDUCATION REQUIREMENTS COURSES

39 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2

PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
RELT 255	Introduction to Christian Ethics	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		39

CORE COURSES 59 Credits

Code	Course Title	Credits
KISW 114	Language Skills In Kiswahili	2
KISW 110	Introduction to Study of Language	3
KISW 111	Historical and Modern Development of Kiswahili	3
KISW 120	Phonetics and Phonology	3
KISW 205	Introduction to the Study of Literature	3
KISW 210	Introduction to Theory and Practice of Translation	3
KISW 225	Morphology and Syntax	3
KISW 265	Language Skills in Kiswahili II	3
KISW 320	Sociolinguistics in Kiswahili	3
KISW 315	Theories of Literary Criticism	3
KISW 350	Contemporary Kiswahili Novel	3
KISW 365	Contemporary Kiswahili Novel and Play	3
KISW 395	Research Methods in Language and Literature	3
KISW 410	Senior Seminar in Kiswahili	3
KISW 420	Semantics and Pragmatics in Kiswahili	3
KISW 422	Textual and Discourse Analysis	3
KISW 425	Senior Seminar in Kiswahili	3
KISW 270	Kiswahili Short Stories	3

KISW 430	Creative Writing in Kiswahili	3
KISW 440	Psycholinguistics in Kiswahili	3
Total		59

ELECTIVE COURSES 9 Credits

Code	Course Title	Credits
KISW 240	Theory and Practice of Translation and Interpretation II	3
KISW 310	Stylistics in Kiswahili	3
KISW 370	Contemporary Kiswahili Play	3
KISW 380	Theatre Arts in Kiswahili	3
KISW 415	Editing Skills in Kiswahili	3
KISW 455	Historical Comparative Linguistics in Kiswahili	3

BACHELOR OF ARTS IN JOURNALISM AND MASS COMMUNICATION

SUMMARY

General Education Requirements	40
Foundation	15
Specialization	50
Electives	4
Minor	30
Total	139-141 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 41 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFT 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3

HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		40

FOUNDATION COURSES

15 Credits

Code	Course Title	Credits
COMM 121	Fundamentals of Journalism	3
COMM 122	Introduction to Mass Communication	3
COMM 126	Media Law and Ethics	3
COMM 127	Photography and Photojournalism	3
COMM 129	Adventist Media Ministries	3
Total		15

SPECIALIZATION COURSES ELECTRONIC MEDIA

50 Credits

Code	Course Title	Credits
COEM 411	Video Production	3
COEM 201	Introduction to Electronic Media	3
COEM 211	Language of Broadcasting	3
COEM 221	Studio Equipment Operations	3
COEM 303	Online Journalism	3
COEM 311	Modern Radio Production	3
COEM 321	Television Production	3
COEM 331	Film Production	3
COMM 341	Editing in Print and Electronic Media	3
COEM 401	Broadcast Programming	3
COEM 423	Video Journalism	3
COMM 230	News Gathering and Reporting	3
COMM 240	Writing Skills for the Mass Media	3
COMM 481	Research Methods in Mass Media I	2
COMM 482	Research Methods in Mass Media II	2
COMM 491	Internship in the Mass Media I	2
COPA 343	Advertising in Mass Media	3
Total		50

ELECTIVE COURSES IN ELECTRONIC MEDIA

4 Credits

Code	Course Title	Credits
COEM 231	Voice and Diction for Broadcasting	2
COEM 271	Citizen Journalism	2
COEM 308	Video Recording and Editing	2
COEM 301	Script Writing for Electronic Media	2

COEM 421	Broadcast News Production	2
COMM 309	Sports Journalism	2
COMM 360	Investigative Journalism	2
ELCT 100	Basic Electronic Maintenance	1
ELCT 111	Fundamentals of Electronics	4

SPECIALIZATION COURSES PRINT MEDIA

49 Credits

Code	Course Title	Credits
COMM 230	News Gathering and Reporting	3
COMM 240	Writing Skills for the Mass Media	3
COMM 260	Online Journalism	3
COMM 481	Research Methods in Mass Media I	2
COMM 482	Research Methods in Mass Media II	2
COMM 491	Internship in the Mass Media I	3
COPA 343	Advertising in Mass Media	3
COPM 200	Introduction to the Print Media	3
COPM 210	Language of the Press	3
COPM 220	Graphics Designs and Desktop Publishing	3
COPM 300	Editing Skills for Print Media	3
COPM 310	Photography and Photojournalism	3
COPM 315	School Yearbook Production	3
COPM 320	Feature and Editorial Writing	3
COPM 400	Newspaper and Magazine Production	3
COPM 450	Book Writing and Publishing	3
COPM 460	Literature Evangelism for Print Media	3
Total		49

ELECTIVE COURSES IN PRINT MEDIA

4 Credits

Code	Course Title	Credits
COMM 309	Sports Journalism	2
COMM 360	Investigative Journalism	2
COPM 330	Article Writing for Print Media	2
COPM 390	Advanced Photography and Photojournalism	2

SPECIALIZATION COURSES IN PUBLIC RELATIONS AND ADVERTISING

50 Credits

Code	Course Title	Credits
COMM 240	Writing Skills for the Mass Media	3
COMM 481	Research Methods in Mass Media I	2
COMM 482	Research Methods in Mass Media II	2
COMM 491	Internship in the Mass Media I	2
COMM 492	Internship in the Mass Media II	2
COPA 203	Introduction to Public Relations	3
COPA 204	Fundamentals of Advertising	3
COPA 233	Language of Advertising	3
COPA 248	Advertising and Promotion	3
COPA 303	Public Relations Writing	3
COPA 313	Public Relations Campaign	3
COPA 323	Advertising Research	3
COPA 333	Contemporary Advertising	3
COPA 343	Advertising in the Mass Media	3
COPA 353	Advertising Management	3
COPA 403	Public relations and Social Media	3
COPA 413	International Public Relations	3
COPA 423	International Advertising and Promotion	3
Total		50

ELECTIVE COURSES IN PUBLIC RELATIONS AND ADVERTISING

4 Credits

Code	Course Title	Credits
COPA 312	New Technology in Public Relations	2
COPA 324	Advertising Campaign Strategy	2
COPA 325	Marketing and Public Relations	2
	Foreign Language (any foreign language offered at the university)	2
COPA 327	Internet Advertising	2

MUSIC PROGRAMS

OPTION I

BACHELOR OF ARTS IN MUSIC

SUMMARY

General Education Requirements	41
Specialization	13
Core	71
Electives	7
Total	132 Credits

This concentration will lead to a BA degree in Music. It is recommended for students who wish to specialize in piano or vocal performance. This degree also includes liberal arts and sciences.

Please note that all music majors are required to be in the university chorale and university band for a full academic year, spanning the first semester, second semester, and inter semester, leading up to the annual university graduation ceremony.

Music majors and minors are exempted from MUGR 100 Music Appreciation and do not need to take MUVG 108 as a vocational skills course.

GENERAL EDUCATION REQUIREMENT COURSES

41 Credits

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
EDUC 215	Introduction to Philosophy of Christian Education	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
INSY 107	Information Technology Today	2
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
LITE 151	Introduction to Literary Appreciation	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0

PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
FTXD 107	Quilting	1
FTXD 108	Weaving	1
FTXD 121	Creative Fashion Crafts Laboratory	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		41

SPECIALIZATION COURSES

13 Credits

Note that the BA in Music has two concentrations: Piano or Voice. All music students must take a major and a minor instrument. Students taking Piano as a major instrument are required to take Voice as a minor instrument and students taking Voice as a major instrument must take piano as a minor instrument. A minor instrument comprises of Concentrations I-V of the said instrument. All music majors are also required to take the Associated Board of the Royal Schools of Music (ABRSM) grade VIII exam for their major instrument, and grade V ABRSM exam for their minor instrument before graduation.

All the specialization courses are equalized with the ABRSM syllabus.

Code	Course Title	Credits
Piano Major/Voice Minor		
MUPF 101	Piano I	1
MUPF 102	Piano II	1
MUPF 201	Piano III	1
MUPF 202	Piano IV	1
MUPF 301	Piano V	1
MUPF 302	Piano VI	1
MUPF 401	Piano VII	1
MUPF 402	Piano VIII	1
MUPF 191	Voice I	1
MUPF 192	Voice II	1
MUPF 291	Voice III	1
MUPF 292	Voice IV	1
MUPF 391	Voice V	1
Voice Major/Piano Minor		
MUPF 191	Voice I	1
MUPF 192	Voice II	1
MUPF 291	Voice III	1
MUPF 292	Voice IV	1
MUPF 391	Voice V	1
MUPF 392	Voice VI	1
MUPF 431	Voice VII	1

MUPF 432	Voice VIII	1
MUPF 101	Piano I	1
MUPF 102	Piano II	1
MUPF 201	Piano III	1
MUPF 202	Piano IV	1
MUPF 301	Piano V	1

CORE COURSES

71 Credits

Code	Course Title	Credits
MUAF 314	African Music	2
MUAF 315	Kenyan Music	2
MUBS 200	Introduction to Music Business	2
MUCH 276	Church Music	2
MUCH 376	Introduction to Hymnology	2
MUED 491	Conducting I	2
MUED 492	Conducting II	2
MUET 311	Introduction to Ethnomusicology	2
MUET 312	World Music	2
MUHL 281	Survey of Music History and Literature I	2
MUHL 282	Survey of Music History and Literature II	2
MUHL 381	Survey of Music History and Literature III	2
MUHL 382/ MUHL 383	Piano Literature (Piano Majors)/ Vocal Literature (Voice Majors)	2
MUPF 171	Musicianship I	2
MUPF 172	Musicianship II	2
MUPF 241	Strings	1
MUPF 242	Woodwinds	1
MUPF 271	Advanced Musicianship	2
MUPF 341	Brass	1
MUPF 342	Percussion	1
MUPF 355	Choral Ensemble	2
MUPF 365	Instrumental Ensemble	2
MUPH 415	Philosophy of Music	2
MUPR 495	Music Practicum	3
MUPS 416	Psychology of Music	2
MURS 421	Research Methods in Music	2
MURS 422	Music Research Project	2
MUTC 247	Introduction to Music Technology	2
MUTH 160	Music Theory and Composition I	2
MUTH 161	Music Theory and Composition II	2
MUTH 260	Music Theory and Composition III	2
MUTH 261	Music Theory and Composition IV	2
MUTH 360	Music Theory and Composition V	2
MUTH 361	Introduction to Counterpoint	2
MUTH 462	Form and Analysis	2
MUTH 463	Advanced Composition and Arranging	2
MUTH 464	Orchestration	2
Total		71

ELECTIVE COURSES

7 Credits

Code	Course Title	Credits
MUBS 200	Introduction to Music Business	2
MUED 325	Introduction to Music Education	2
MUED 326	Music Education Methodology	2
MUED 327	Piano Pedagogy	2

MUED 328	Vocal Pedagogy	2
MUHL 381	Piano Literature	1
MUHL 382	Vocal Literature	1
MUPF 343	Guitar	1
MUPF 403	Introduction to Collaborative Piano	2
MUPF 433	Singer's Diction	1
MUTC 248	Introduction to Sound Production	2
MUTC 249	Introduction to Video Production	2
MUTH 460	Song Writing	2
MUTH 465	Introduction to Film Music	2

OPTION II

BACHELOR OF MUSIC IN MUSIC EDUCATION

SUMMARY

General Education Requirements	33
Specialization	10
Core	76
Cognates	12
Electives	4
Total	135 Credits

This degree is intended for those who wish to teach professionally in various music teaching settings, both in the classroom and in the studio. Skill in musical performance is also highlighted to qualify the teacher in vocal and instrumental performance.

Please note that all music majors are required to be in the university chorale and university band for a full academic year, spanning the first semester, second semester, and inter semester, leading up to the annual university graduation ceremony.

Students in the Bachelor of Music in Music Education program are exempted from the following General Education Requirements:

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
MUGR 100	Music Appreciation	2
PHYS 100	Concepts of Physical Sciences	2

They also do not need to take MUVU 108 as a vocational skills course.

GENERAL EDUCATION REQUIREMENT COURSES

33 Credits

Code	Course Title	Credits
BIOL 105	Human Biology	2
EDUC 215	Introduction to Philosophy of Christian Education	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1

INSY 107	Information Technology Today	2
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
LITE 151	Introduction to Literary Appreciation	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and Recreational Activities	1
PSYC 101	Introduction to Psychology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
FTXD 107	Quilting	1
FTXD 108	Weaving	1
FTXD 121	Creative Fashion Crafts Laboratory	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		35

SPECIALIZATION COURSES

10 Credits

Kindly Note that students taking BMME take two instruments, piano and voice up to Level V. They are also required to take Grade V Associated Board of the Royal Schools of Music (ABRSM) exams for both piano and voice before graduation. All the specialization courses are equalized with the ABRSM syllabus.

Code	Course Title	Credits
Piano		
MUPF 101	Piano I	1
MUPF 102	Piano II	1
MUPF 201	Piano III	1
MUPF 202	Piano IV	1
MUPF 301	Piano V	1
Voice Major/Piano Minor		
MUPF 191	Voice I	1
MUPF 192	Voice II	1
MUPF 291	Voice III	1
MUPF 292	Voice IV	1
MUPF 391	Voice V	1
Total		10

CORE COURSES

76 Credits

Code	Course Title	Credits
MUAF 314	African Music	2
MUAF 315	Kenyan Music	2
MUCH 276	Church Music	2
MUCH 376	Introduction to Hymnology	2
MUED 325	Introduction to Music Education	2

MUED 326	Music Education Methodology	2
MUED 327	Piano Pedagogy	2
MUED 328	Vocal Pedagogy	2
MUED 429	Music Teaching Practicum	3
MUED 491	Conducting I	2
MUED 492	Conducting II	2
MUET 311	Introduction to Ethnomusicology	2
MUET 312	World Music	2
MUHL 281	Survey of Music History and Literature I	2
MUHL 282	Survey of Music History and Literature II	2
MUHL 381	Survey of Music History and Literature III	2
MUPF 171	Musicianship I	2
MUPF 172	Musicianship II	2
MUPF 241	Strings	1
MUPF 242	Woodwinds	1
MUPF 271	Advanced Musicianship	2
MUPF 341	Brass	1
MUPF 342	Percussion	1
MUPF 343	Guitar	1
MUPF 355	Choral Ensemble	2
MUPF 365	Instrumental Ensemble	2
MUPH 415	Philosophy of Music	2
MUPS 416	Psychology of Music	2
MURS 421	Research Methods in Music	2
MURS 422	Music Research Project	2
MUTC 247	Introduction to Music Technology	2
MUTH 160	Music Theory and Composition I	2
MUTH 161	Music Theory and Composition II	2
MUTH 260	Music Theory and Composition III	2
MUTH 261	Music Theory and Composition IV	2
MUTH 360	Music Theory and Composition V	2
MUTH 461	Introduction to Counterpoint	2
MUTH 462	Form and Analysis	2
MUTH 463	Advanced Composition and Arranging	2
MUTH 464	Orchestration	2
Total		76

COGNATES COURSES

12 Credits

Code	Course Title	Credits
EDPC 106	Educational Psychology	3
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 326	Education Measurement and Evaluation	3
Total		12

ELECTIVE COURSES

6 Credits

Code	Course Title	Credits
MUBS 200	Introduction to Music Business	2
MUED 327/ MUED 328	Piano Pedagogy/ Vocal Pedagogy	2
MUHL 381	Piano Literature	2
MUHL 382	Vocal Literature	2
MUPF 302	Piano Concentration VI	2
MUPF 332	Voice Concentration VI	2
MUPF 401	Piano Concentration VII	2

MUPF 402	Art of Accompaniment	2
MUPF 402	Piano Recital	1
MUPF 431	Voice Concentration VII	2
MUPF 432	Voice Recital	1
MUPF 433	Singer's Diction	1
MUTC 248	Introduction to Sound Production	2
MUTC 249	Introduction to Video Production	2
MUTH 460	Song Writing	2
MUTH 465	Introduction to Film Music	2

BACHELOR OF ARTS IN SOCIAL WORK

SUMMARY

General Education Requirements	37
Core	65
Cognates	6-7
Electives	5-6
Minor	30
Total	143-145 Credits

EXEMPTIONS FOR UPGRADING STUDENTS FROM DIPLOMA

Upgrading students from UEAB's Diploma in Community Development program will be exempted from the following courses:

Code	Course Title	Credits
INSY 107	Information Technology Today	2
ENGL 106	Speech Communication	1
DEST 250	Gender Issues in Community Development	3
ENVI 227	Environment and Society	2
RELT 207	Christian Beliefs	3
DEST 071B	Disaster Preparedness, Management and Mitigation	3
Total		14

Fresh Students joining Social Work are Exempted from the following General Education Requirement:

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
HIST 119/ HIST 111/ DEST 130	Issues in Development Studies/ Concepts of World Civilization/ Emerging Development Issues in Least Developed Countries	2
HLED 110	Health Principles	1
ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environment and Science/ Safety Education	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
ENGL 106	Speech Communication	1
RELT 207	Christian Beliefs	3
Total		13

GENERAL EDUCATION REQUIREMENT COURSES

37 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
GCAS 107/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
MATH 101/ MATH 100	Pre-calculus/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELB 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
HIST 111/ HIST 119/ DEST 130	Concepts of World Civilization/ Issues in Development Studies/ Emerging Development Issues in Least Developed Countries	2
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		37

CORE COURSES

65 Credits

Code	Course Title	Credits
SOWK 111	Introduction to Social Work	3
SOWK 112	Principles and Methods of Social Work	3
SWES 150	Ethics in Social Work	2

SWFI 207	Family Issues	2
SOWK 230	Social Work Theory and Practice	3
SOWK 240	Family and Child Welfare	3
SWSL 254	Social Work and the Stages of Life Cycle	3
SWMC 255	Multiculture in Social Work	3
SWEC 260	Early childhood Education and Child Psychology	3
SWMD 275	Marriage Dynamics and Growth	3
SWCI 280	Contemporary Issues in Social Work	3
SWSA 290	Substance Abuse, Crisis and Mental Health	3
SWSP 300	Social Policy and Administration	3
SWES 301	Entrepreneurship Skills in Social Work	3
SWSR 303	Social Deviation, Rehabilitation and Re-Integration	3
SWHB 310	Human Behavior	3
SWCA 356	Child and Spouse Abuse	3
SWSL 400	Social Law	3
SWBS 401	Basic Statistics for Social Sciences	3
SWSS 407	Seminar in Professional Social Work	3
SWPC 410	Parent/Child Relationship	3
SWED 420	Exceptional Child	3
SWPE 450	Professional Field Work Experience	4
Total		65

COGNATE COURSES

6-7 Credits

Code	Course Title	Credits
DEST 370	Project Planning, Implementation, Monitoring and Evaluation	4
DEST 373	Disaster Preparedness, Mitigation and Management	3
DEST 350	Conflict Management and Resolution	3
Total		6-7

ELECTIVE COURSES

5-6 Credits

Code	Course Title	Credits
SWHS 473	Human Sexuality	3
SWHA 375	HIV/AIDS Prevention, Counseling and Homecare	2
SWEC 260	Early Childhood Education and Child Psychology	3
Total		5-6

MINOR IN COUNSELING PSYCHOLOGY

SUMMARY

Core	16
Cognates	3
Electives	7
Total	26 Credits

CORE COURSES

16 Credits

Code	Course Title	Credits
CPSY 122	Foundations of Counseling	3
CPSY 150	Techniques of Counseling	3

CPSY 262	Abnormal Psychology	2
CPSY 391	Theories of Personality	2
CPSY 397	Current Theories in Counseling and Psychotherapy	3
CPSY 479	Psychological Testing and Assessment	3
Total		16

COGNATE COURSE

3 Credits

Code	Course Title	Credits
EDPC 238	Human Growth and Development	3
Total		3

ELECTIVE COURSES

7 Credits

Code	Course Title	Credits
CPSY 126	HIV/AIDS Counseling	2
CPSY 270	Ethics in Counseling	2
CPSY 295	Premarital Counseling	3
CPSY 386	Group Counseling	2
CPSY 387	Marriages and Family Counseling	3

MINOR IN DEVELOPMENT STUDIES

SUMMARY

Core	28
Electives	2
Total	30 Credits

CORE COURSES

28 Credits

Code	Course Title	Credits
DEST 100	History, Theories and Concepts of Development	3
DEST 240	Community Leadership and Development	3
DEST 457	Studies on Displaced Persons	3
DEST 280	NGOs: Management and Leadership	3
DEST 350	Conflict Management and Resolution	3
DEST 370	Project Planning, Implementation, Monitoring and Evaluation	4
DEST 373	Disaster Preparedness, Mitigation and Management	3
DEST 410	Proposal and Grant writing	3
DEST 450	Ethics in Development	3
Total		28

ELECTIVE COURSES

2 Credits

Code	Course Title	Credits
DEST 170	Communication in Development	2
DEST 260	Co-Operative and other Social Movements in Development	2
DEST 363	Urbanization and Development	2
DEST 392	Development perspectives of Globalization	2
DEST 396	Aid and Development	2

MINOR IN ENGLISH

SUMMARY

Core	30
Total	30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
ENGL114	Introduction to the Description of English	3
ENGL130	Introduction to the Study of Language	3
ENGL148	English Grammar and Usage I	3
ENGL216	Origins and Development of English	3
ENGL217	Phonetics and Phonology	3
ENGL222	Theory, Practice of Translation and Interpretation /	3
ENGL447	Translation and Interpretation Skills	
ENGL435	Editing Skills	3
ENGL443	Writing for the Media	3
ENG342	Sociolinguistics	3
ENGL456	Varieties of English	3
Total		30

MINOR IN ENVIRONMENTAL STUDIES

SUMMARY

Core	21
Electives	7-8
Total	28-29 Credits

CORE COURSES 21 Credits

Code	Course Title	Credits
ENVI 110	Introduction to Environmental Science	3
ENVI 113	Fundamentals of Physical Environment	3
ENVI 210	Environment and Development	3
ENVI 310	Environmental Ethics	3
ENVI 336	Hydrology and Water Resources	3
ENVI 356	Environment and Development Policy	3
ENVI 442	Water Resources, Environment and Development	3
Total		21

ELECTIVE COURSES 7-8 Credits

Code	Course Title	Credits
ENVI 350	Forum on the Environment	2
ENVI 460	Natural Resources Evaluation, Management and Development	3
ENVI 470	Special Topics in Environment	2
PHEH 360	Liquid Waste Management	2
PHEH 362	Solid Waste Management	2
GEOG 355	Geographical Information Systems	3

Four credits, excluding credits already studied in major and/or minor areas in Geography, and at least three credits must be 400 level classes

MINOR IN FRENCH

SUMMARY

Core	27
Electives	3
Total	30 Credits

CORE COURSES 27 Credits

Code	Course Title	Credits
FREN 111	The French Language and Grammar	3
FREN 114	French Grammar and Usage	3
FREN 130	Oral Expression and Aural Comprehension	3
FREN 210	Introduction to General Linguistics in French	3
FREN 460	Attachment - French Language and Communication	3
FREN 310	French Oral Literature	3
FREN 330	Culture and Civilization of the French-speaking Community	3
FREN 420	Introduction to Translation and Interpretation	3
FREN 440	French for Management and Administration	3
Total		27

ELECTIVE COURSES 3 Credits

Code	Course Title	Credits
FREN 140	History and Modern Trends of the French Language	3
FREN 240	The French African Novel and Short Stories	3
FREN 320	French Semantics and Lexicology	3
FREN 340	Textual Analysis in French	3
FREN 430	French for the Hotel, Tourism and Travel Industries	3

MINOR IN GEOGRAPHIC INFORMATION SYSTEMS

SUMMARY

Core	24
Electives	6
Total	30 Credits

CORE COURSES 24 Credits

Code	Course Title	Credits
GEOG 130	Intro. to Cartography, Map-work and Land Surveying	3
GEOG 207	Geospatial Programming Fundamentals	3
GEOG 276	Database Design	3
GEOG 321	Remote Sensing	3
GEOG 355	Geographical Information Systems	3
GEOG 357	Web-mapping	3
GEOG 401	Statistics and Computer-aided Data Analysis in Social Sciences	3
GEOG 423	Geospatial Modeling and Analysis	3
Total		24

ELECTIVE COURSES**6 Credits**

At least 6 Credits, all of them from the same cluster)

Code	Course Title	Credits
CLUSTER A		
GEOG 436	Application of GIS in Urban and Rural Land use Planning	3
GEOG 448	Application of GIS in Landscape Architecture	3
CLUSTER B		
GEOG 433	Application of GIS in Telecommunication	3
GEOG 458	Intelligent Transportation Systems	3
CLUSTER C		
GEOG 449	Application of GIS in Disaster Management	3
GEOG 451	Application of GIS in Environmental Management	3
GEOG 464	Application of GIS in Public Health	3
GEOG 469	Application of GIS in Climatology	3
CLUSTER D		
GEOG 472	Application of GIS in Agriculture	3
GEOG 485	Application of GIS in Tourism	3
GEOG 493	Application of GIS in Conservation Biology	3
CLUSTER E		
GEOG 467	Application of GIS in Archeology	3
GEOG 486	Application of GIS in Criminal Justice	3
GEOG 499	GIS in Public Administration	3

MINOR IN GEOGRAPHY**SUMMARY**

Core	24
Electives	6
Total	30 Credits

CORE COURSES 24 Credits

Code	Course Title	Credits
GEOG 111	Fundamentals of Physical Geography I	3
GEOG 121	Fundamentals of Human Geography I	3
GEOG 130	Introduction to Cartography, Mapwork and Land Surveying	3
GEOG 211	Fundamentals of Physical Geography II	3
GEOG 221	Fundamentals of Human Geography II	3
GEOG 310	Geography of Kenya and the East African Region	3
GEOG 401	Statistics and Computer-Aided Data Analysis in Social Sciences	3
GEOG 430	Climatology and Meteorology	3
Total		24

ELECTIVE COURSES**6 Credits**

6 Credits, excluding credits already studied in major and/or minor areas in Geography, at least 3 credits must be 400 level classes

MINOR IN HEALTH PSYCHOLOGY**SUMMARY**

Core	26
Total	26 Credits

CORE COURSES 26 Credits

Code	Course Title	Credits
CPSY 126	HIV/AIDS Counselling	2
CPSY 150	Techniques of Counselling	3
CPSY 262	Abnormal Psychology	2
CPSY 333	Chemical Dependency in Diverse Population	2
CPSY 374	Crisis Counselling	3
CPSY 386	Group Counselling	2
CPSY 393	Concepts of Chemical Dependency	3
CPSY 396	Depression and Stress Management	2
PSYC 340	Motivation and Behavior Change	2
PSYC 450	Social Psychology	2
PSYC 488	Topics in Health Psychology	2
PSYC 496	Senior Project in Health Psychology	2
Total		26

MINOR IN HISTORY**SUMMARY**

Core	27
Electives	3
Total	30 Credits

CORE COURSES 27 Credits

Code	Course Title	Credits
HIST 120	History of Kenya I: to 1900	3
HIST 121	History of Kenya II: Since 1900	3
HIST 130	History of Africa I: before 1900	3
HIST 131	History of Africa II: since 1900	3
HIST 200	History of USA I	3
HIST 201	History of USA II	3
HIST 225	History of Europe 1789-1919	3
HIST 227	History of Europe 1919-1990	3
HIST 230	History of USSR 1917-1991	3
Total		27

ELECTIVE COURSES**3 Credits**

Code	Course Title	Credits
HIST 305	Fundamentals of Historiography	3
HIST 313/	Themes in East African History	3
HIST 314/	History of North Africa since 1890	2
HIST 315	History of West Africa since 1800	2
HIST 316	History of Central and Southern Africa	2
HIST 333	Economic history of Africa	3
HIST 445	Historical Research Methods	3

MINOR IN KISWAHILI

SUMMARY

Core	30
Total	30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
KISW 114	Language Skills in Kiswahili I	3
KISW 110	Introduction to Study of Language	3
KISW 111	Historical and Modern Development of Kiswahili	3
KISW 225	Morphology and Syntax	3
KISW 315	Theories of Literary Criticism	3
KISW 210	Introduction to Theory and Practice of Translation	3
KISW 350	Contemporary Kiswahili Novel	3
KISW 360	Oral Literature in Kiswahili	3
KISW 370	Contemporary Kiswahili Play	3
KISW 420	Semantics and Pragmatics in Kiswahili	3
Total		30

MINOR IN LITERATURE

SUMMARY

Core	30
Total	30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
LITE 151	Introduction to Literary Appreciation	3
LITE 154	Introduction to Oral Literature	3
LITE 165	Stylistics	3
LITE 210	East African Prose	3
LITE 212	East African Poetry	3
LITE 214	East African Drama	3
LITE 260	Children's Literature	3
LITE 346	Introduction to Literary Criticism	3
LITE 348	European Literature	3
LITE 450	Theatre Arts	3
Total		30

MINOR IN PRINT MEDIA

SUMMARY

Core	29
Total	29 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
COMM121	Introduction to Mass Communication	3
COMM122	Fundamentals of Journalism	3
COMM126	Media Law and Ethics	3
COMM127	Photography and Photojournalism	3

COMM129	Adventist Media Ministries	3
COPM200	Introduction to Print Media	3
COPM220	Graphics Design and Desktop Publishing	3
COPM315	School Yearbook Production	3
COPM400	Newspaper and Magazine Production	3
COMM491	Internship in the Mass Media I	2
Total		29

MINOR IN ELECTRONIC MEDIA

SUMMARY

Core	29
Total	29 Credits

CORE COURSES 29 Credits

Code	Course Title	Credits
COMM121	Introduction to Mass Communication	3
COMM122	Fundamentals of Journalism	3
COMM126	Media Law and Ethics	3
COMM127	Photography and Photojournalism	3
COMM129	Adventist Media Ministries	3
COEM201	Introduction to Electronic Media	3
COEM311	Modern Radio Production	3
COEM321	Television Production	3
COEM411	Video Journalism	3
COMM491	Internship in the Mass Media I	2
Total		29

MINOR IN PUBLIC RELATIONS AND ADVERTISING

SUMMARY

Core	29
Total	29 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
COMM121	Introduction to Mass Communication	3
COMM122	Fundamentals of Journalism	3
COMM126	Media Law and Ethics	3
COMM127	Photography and Photojournalism	3
COMM129	Adventist Media Ministries	3
COPA203	Introduction to Public Relations	3
COPA204	Fundamentals of Advertising	3
COPA323	Advertising Research	3
COPA403	Public Relations and Social Media	3
COMM491	Internship in the Mass Media I	2
Total		29

MINOR IN MUSIC

SUMMARY

Specialization	5
Core	25
Total	30 Credits

Music majors and minors are exempted from MUGR 100 Music Appreciation.

SPECIALIZATION COURSES 8 Credits

Code	Course Title	Credits
Piano		
MUPF 110	Piano Concentration I	1
MUPF 111	Piano Concentration II	1
MUPF 210	Piano Concentration III	1
MUPF 211	Piano Concentration IV	1
MUPF 301	Piano V	1
Voice		
MUPF 120	Voice Concentration I	1
MUPF 121	Voice Concentration II	1
MUPF 220	Voice Concentration III	1
MUPF 221	Voice Concentration IV	1
MUPF 331	Voice V	1

CORE COURSES 25 Credits

Code	Course Title	Credits
MUAF 312	African Music	2
MUET 312	World Music	2
MUCH 276	Church Music	2
MUHL 280	Introduction to Music History	2
MUPF 171	Musicianship I	2
MUPF 172	Musicianship II	2
MUPF 241	Strings	1
MUPF 242	Woodwinds	1
MUPF 341	Brass	1
MUPF 342	Percussion	1
MUPF 343	Guitar	1
MUPF 355	Choral Ensemble	2
MUPF 365	Instrumental Ensemble	2
MUTH 160	Music Theory and Composition I	2
MUTH 161	Music Theory and Composition II	2
Total		25

MINOR IN POLITICAL SCIENCE

SUMMARY

Core	24
Elective	6
Total	30 Credits

CORE COURSES 24 Credits

Code	Course Title	Credits
POLS 221	Introduction to Political Science	3
POLS 207	Political systems of Developing Nations	3

POLS 210	Introduction to International Relations	3
POLS 300	Political Economy of Developing Countries	3
POLS 310	Politics and Government in Kenya	3
POLS 435	Developed and Developing Nations: Comparative Politics	3
POLS 440	History of Political Thought	3
POLS 443	African Political Thought	3
Total		24

ELECTIVE COURSES 6 Credits

Code	Course Title	Credits
DEST 101	Politics in and of Development	3
POLS 220	Africa in International Relations	3
POLS 320	Local Government Politics in Kenya	3
POLS 430	Politics and Environmental Welfare	3

MINOR IN PSYCHOLOGY

SUMMARY

Core	18
Cognate	3
Electives	4
Total	25 Credits

CORE COURSES 18 Credits

Code	Course Title	Credits
CPSY 150	Techniques of Counseling	3
CPSY 262	Abnormal Psychology	2
CPSY 391	Theories of Personality	2
CPSY 484	Cross-Culture Counseling	2
PSYC 340	Motivation and Behavior Change	2
PSYC 393	Cognition	2
PSYC 450	Social Psychology	2
CPSY 479	Psychological Testing and Assessment	3
Total		18

COGNATE COURSE 3 Credits

Code	Course Title	Credits
SWMD 275	Marriage Dynamics and Growth	3
Total		3

ELECTIVE COURSES 4 Credits

Code	Course Title	Credits
CPSY 119	Principles of Self Esteem	2
CPSY 317	Psychology of the Exceptional Child	2
CPSY 393	Concepts of Chemical Dependency	2

MINOR IN SOCIAL WORK

SUMMARY

Core	15
Cognates	14
Total	29 Credits

GENERAL EDUCATION COURSES EXEMPTIONS

4 Credits

Code	Course Title	Credits
PSYC 101	Introduction to Psychology (taken as a cognate)	2
SOCI 121	Introduction to Sociology (taken as a cognate)	2

CORE COURSES

15 Credits

Code	Course Title	Credits
SOWK 111	Introduction to Social Work	3
SOWK 112	Principles and Methods of Social Work	3
SOWK 230	Social Work Theory and Practice	3
SOWK 300	Social Policy and Administration	3
SOWK 320	Social Deviation and Rehabilitation	3
Total		15

COGNATE COURSES

14 Credits

Code	Course Title	Credits
DEST 240	Community Leadership and Development	3
DEST 370	Project Planning, Implementation, Monitoring and Evaluation	4
DEST 410	Proposal and Grant Writing	3
PSYC 101	Introduction to Psychology	2
SOCI 121	Sociology	2
Total		14

Bachelor of Arts in COUNSELING PSYCHOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENG 105	Writing Skills	3	0	3	ENG 106	Speech Communication	1	0	1	
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	INSY 107/ INSY 108	Information Technology Today / Information Technology Today for Health Professionals	2	0	2	
		Elective	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	MATH 100	Fundamentals of Mathematics	3	0	3		Vocational Skills	1	0	1	
	OFTE 120	Keyboarding	0	0	0	PHYS 100	Concepts of Physical Sciences	2	0	2	
	RELH 155	Adventist Heritage	2	0	2	PSYC 111	General Psychology II	2	0	2	
	PSYC 110	General Psychology I	2	0	2	CPSY 126	HIV/AIDS Counseling	2	0	2	
	CPSY 122	Foundations of Counseling	2	0	2	CPSY 150	Techniques of Counseling	3	0	3	
		Minor Courses	2	0	2	HLED 110	Health Principles	1	0	1	
Total			18	0	18	Total			17	0	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	BIOL 105	Human Biology	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	CPSY 270	Ethics in Counseling	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment & Society/ Environmental Science/ Safety Education	2	0	2	CPSY 275	Christianity & Counseling	3	0	3	
	EDPC 238	Human Growth & Dev	3	0	3	DEST 100	Concepts and History of Development	3	0	3	
	CPSY 262	Abnormal Psychology	2	0	2		Minor Courses	2	0	2	
		Electives Courses	2	0	2	Total			18	0	18
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CPSY 295	Premarital Counseling	3	0	3	CPSY 391	Theories of Personality	2	0	2	
	CPSY 374	Crisis Counseling	3	0	3	CPSY 393	Concepts of Chemical Dependency	2	0	2	
	CPSY 385	Child and Adolescent Counseling	3	0	3	CPSY 397	Current Theories in Counseling & Psychotherapy	3	0	3	
	CPSY 386	Group Counseling/Dynamics	2	0	2	CPSY 396	Depression & Stress Management	2	0	2	
	SWHS 473	Human sexuality	3	0	3	CPSY 398	Organizational Psychology	2	0	2	
		Minor Courses	4	0	4	CPSY 489	Counseling Practicum	2	0	2	
						SWCA 356	Child and Spouse Abuse	2	0	2	
	Total			18	0	18	Total			15	0
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CPSY 480	Counseling Research Methods	3	0	3	RELT 426	Writings and Philosophy of E.G. White	2	0	2	
	CPSY 484	Cross Cultural Counseling	2	0	2	CPSY 479	Psychological Testing and Assessment	3	0	3	
		Elective	4	0	4		Minor Courses	13	0	13	
		Minor Courses	9	0	9	Total			18	0	18

Bachelor of Arts in DEVELOPMENT STUDIES

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	HELD 110	Health Principles	1	0	1
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2
	OFTE 120	Key boarding	0	0	0		Vocational Skills	1	0	1
	RELT 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2
	DEST 100	History and Concepts of Development	3	0	3	DEST 121	Culture and Development	3	0	3
	DEST 101	Politics in Development	3	0	3	DEST 240	Community Leadership and Development	3	0	3
		Minor	2	0	2		Minor	4	0	4
	Total		20	0	20	Total		20	0	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AGRI 105	Principles of Agricultural Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	RELB 220	Life and Teaching of Jesus	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	BIOL 105	Human Biology	2	0	2
	PEAC 107	Physical and Recreational Activities	1	0	1	DEST 250	Gender Issues in Development	3	0	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	ECON 210	Principles of Microeconomics	3	0	3
	DEST 215	Human Rights	3	0	3		Elective	3	0	3
		Minor	8	0	8		Minor	6	0	6
	Total		20	0	20	Total		21	0	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	DEST 265	Environmental Impact Assessment	3	0	3	GEOG 401	Statistics and Computer-aided Analysis in Social Sciences	3	0	3
	DEST 280	NGOs Management and Leadership	3	0	3	DEST 380	Studies in Community Health	3	0	3
	DEST 307	Research Methods in Development	3	0	3	DEST 470	Sustainable Development	3	0	3
	DEST 370	Project Planning, Implementation, Monitoring and Evaluation	3	0	3	DEST 373	Disaster Preparedness, Mitigation, and Management	3	0	3
	DEST 450	Ethics in Development	3	0	3	DEST 457	Studies on Displaced Persons	3	0	3
		Minor	4	0	4	DEST 350	Conflict Management and Resolution	3	0	3
		Elective	2	0	2		Minor	3	0	3
	Total		21	0	21	Total		21	0	21
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	DEST 390	Principles of Population and Demography	3	0	3	DEST 490	Field Attachment	3	0	3
	DEST 410	Proposal and Grant Writing	3	0	3					
	DEST 432	Entrepreneurship skills, Business Management and Financial Accountability	3	0	3					
	DEST 375	Rural Development	3	0	3					
	DEST 485	Independent Studies in Development	3	0	3					
	ECON 201	Principles of Economics	2	0	2					
		Minor	4	0	4					
	Total		21	0	21	Total		3	0	3

Bachelor of Arts in ENGLISH LANGUAGE AND LITERATURE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	ENGL 106	Speech Communication	1	0	1
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2
	RELH 155	Adventist Heritage	2	0	2		Vocational Skills	1	0	1
	OFTE 120	Keyboarding	0	0	0	ENGL 148	English Grammar and Usage I	3	0	3
	LITE 151	Introduction to Literary Appreciation	2	0	2	LITE 154	Introduction to Oral Literature	3	0	3
	ENGL 130	Introduction to the Study of Language	3	0	3	LITE 159	Themes in East African Literature	3	0	3
	LITE 165	Stylistics	3	0	3	RELT 207	Christian Beliefs	3	0	3
	PSYC101/ SOC1 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	HLED 110	Health Principles	1	0	1
	PEAC 107	Physical and Recreational Activities	1	0	1	PHYS 100	Concepts of Physical Sciences	2	0	2
	Total		19	0	19	Total		19	0	19
2nd	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	ENGL 218	Morphology and Syntax	3	0	3
	ENGL216	Origins and Development of English	3	0	3	ENGL 244	Discourse Analysis	3	0	3
	ENGL 217	Phonetics and Phonology	3	0	3	LITE 260	Children's Literature	3	0	3
	ENGL 222	Theory, Practice of Translation and Interpretation	3	0	3	RELT 255	Introduction to Christian Ethics	2	0	2
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 105	Human Biology	2	0	2
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2					
	Total		19	0	19	Total		17	0	17
3rd	ENGL 346	English for Specific Purposes	3	0	3	LITE 348	European Literature	3	0	3
	ENGL 342	Sociolinguistics	3	0	3	ENGL 305	Semantics and Pragmatics	3	0	3
	LITE 346	Introduction to Literary Theory and Criticism	3	0	3	ENGL 347	Second Language Acquisition	3	0	3
		Minor	9	0	9		Minor	9	0	9
	Total		18	0	18	Total		18	0	18
4th	ENGL 435	Editing Skills	3	0	3	ENGL 465	Principles of Creative Writing	3	0	3
	ENGL 443	Writing for the Media	3	0	3	ENGL 480	Language and Communication Attachment	3	0	3
	LITE 455	Theory, Fieldwork and Research Skills	3	0	3		Minor	6	0	6
	ENGL 469	Research Project/Seminar	3	0	3					
		Minor	6	0	6					
	Total		18	0	18	Total		12	0	12

Bachelor of Arts in FRENCH

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	ENGL 106	Speech Communication	1	0	1
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2
	RELH 155	Adventist Heritage	2	0	2		Vocational Skills	1	0	1
	OFTE 120	Keyboarding	0	0	0	RELT 207	Christian Beliefs	3	0	3
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	HLED 110	Health Principles	1	0	1
	FREN 104	Introduction to French Language	3	0	3	PHYS 100	Concepts of Physical Sciences	3	0	3
	FREN 112	Structure of the French Language	3	0	3	FREN 130	Oral Expression and Aural Comprehension	3	0	3
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	FREN 131	Written Expression and French Grammar I	3	0	3
	PEAC 107	Physical and Recreational Activities	1	0	1	FREN 140	History and Modern Trends of the French Language	3	0	3
	Total		19	0	19	Total		20	0	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	FREN 210	Introduction to General Linguistics in French	3	0	3	FREN 220	French Phonetics and Phonology	3	0	3
	FREN 230	Panorama of Francophone Literature	3	0	3		Minor	3	0	3
		Minor	3	0	3		Elective	3	0	3
	AGRI 105	Principles of Agricultural Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	BIOL 105	Human Biology	2	0	2
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2
	Total		17	0	17	Total		17	0	17
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	FREN 310	French Oral Literature	3	0	3		Elective	3	0	3
	FREN 315	French For General, Academic and Professional Purposes	3	0	3		Minor	3	0	3
	FREN 327	Written Expression and French Grammar II	3	0	3	FREN 337	Introduction to French Literature	3	0	3
		Elective	3	0	3		Minor	3	0	3
		Minor	3	0	3		Minor	3	0	3
		Minor	3	0	3		Elective	3	0	3
	Total		18	0	18	Total		18	0	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	FREN 414	Semantics and Lexicology	3	0	3	FREN 421	French Morphology and Syntax	3	0	3
	FREN 415	Socio-Linguistics in French	3	0	3	FREN 435	The French Novel and Philosophical Works	3	0	3
		Minor	3	0	3	FREN 455	Project Paper	3	0	3
		Minor	3	0	3	FREN 460	Attachment	5	0	5
		Minor	3	0	3					
	FREN 454	Academic Research: Basic Principles and Methods	3	0	3					
	Total		18	0	18	Total		14	0	14

Bachelor of Arts in GEOGRAPHY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2	
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HELD 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	PHSY 100	Concepts of Physical Sciences	2	0	2	
	GEOG 101	Introduction to Geography	3	0	3	GEOG 102	World Regional Geography	3	0	3	
	GEOG 111	Fundamentals of Physical Geography I	3	0	3	GEOG 130	Introduction to Cartography, Map-work and Land Survey	3	0	3	
		Minor	2	0	2	GEOG 121	Funds of Human Geography I	3	0	3	
Total			20	0	20	Total			19	0	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	BIOL 105	Human Biology	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1		Minor	6	0	6	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	GEOG 311	Geography of Kenya	3	0	3	
	GEOG 211	Funds of Physical Geography II	3	0	3						
	GEOG 221	Fundamentals of Human Geography II	3	0	3						
	Total			17	0	17	Total			17	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	GEOG 312	Geography of Development	2	0	2	GEOG 334	The Arid and Semi-Arid Lands	3	0	3	
	GEOG 313	Geography of East Africa	3	0	3	GEOG 355	Geographical Information Systems	3	0	3	
		Minor	7	0	7	GEOG 401	Quantitative Techniques and Computer-aided Data Analysis in Social Sciences	3	0	3	
	GEOG 323	Remote Sensing	3	0	3		Option A or B course	3	0	3	
		Option A or B course	3	0	3		Option A or B course	3	0	3	
		Option A or B course	3	0	3		Minor	6	0	6	
Total			21	0	21	Total			21	0	21
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	GEOG 410	Research Methods in Social Sciences	3	0	3	GEOG 495	Geographical Attachment	3	0	3	
	GEOG 430	Meteorology and Climatology	3	0	3						
	GEOG 450	Selected Topics in Geography	2	0	2						
	GEOG 498	Independent Research Project in Geography	3	0	3						
		Option A or B course	3	0	3						
		Minor	6	0	6						
Total			20	0	20	Total			3	0	3

Bachelor of Arts in HISTORY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PSYC 101/ SOC 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2	
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HLED 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	HIST 121	History of Kenya II	3	0	3	
	HIST 120	History of Kenya I	3	0	3		Minor	3	0	3	
	GEOG 105	A Survey of World Geography	3	0	3						
Total			19	0	19	Total			16	0	16
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 105	Human Biology	2	0	2	
	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	HIST 204	History of Africa II	3	0	3	
	HIST 203	History of Africa I	3	0	3	HIST 201	History of the USA II	3	0	3	
	HIST 200	History of USA I	3	0	3		Minor	3	0	3	
		Minor	3	0	3						
	Total			19	0	19	Total			17	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HIST 305	Fundamentals of Historiography	3	0	3	HIST 313	Themes in East African History	3	0	3	
	HIST 225	History of Europe 1789-1919	3	0	3	HIST 227	History of Europe 1919-1990	3	0	3	
	HIST 333	Themes in East African History	3	0	3	HIST 230	History of USSR 1917-1991	3	0	3	
		Elective	3	0	3		Elective	3	0	3	
		Minor	3	0	3		Minor	3	0	3	
		Minor	3	0	3		Minor	3	0	3	
Total			18	0	18	Total			18	0	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	GEOG 401	Statistics and Computer-Aided Data Analysis in Social Sciences	3	0	3	HIST 490	Independent Study	3	0	3	
	HIST 411	Selected Topics in Modern African History	3	0	3	HIST 421	Imperialism and Nationalism in 3rd World	3	0	3	
	HIST 415	History of Science and Technology	3	0	3	HIST 450	Topics in History of Post-Independent Kenya	3	0	3	
	HIST 445	Historical Research Topics	3	0	3		Elective	3	0	3	
		Elective	3	0	3		Minor	3	0	3	
		Minor	3	0	3		Minor	3	0	3	
Total			18	0	18	Total			18	0	18

Bachelor of Arts in KISWAHILI

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	KISW 110	Introduction to Linguistics in Kiswahili	3	0	3	KISW 111	Historical and Modern Development of Kiswahili	3	0	3	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	KISW 120	Phonetics and Phonology	3	0	3	
	RELT 155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1	
	ENGL 105	Writing Skills	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	LITE 151	Introduction to Literary Appreciation	2	0	2	HLED 110	Health Principles	1	0	1	
	PEAC 107	Physical and Recreational Activities	1	0	1	INSY 107	Information Technology Today	2	0	2	
	PSYC 107/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2	
	MATH 100/ COSC 111	Fundamentals of Math/ Computational Mathematics I	3	0	3		Vocational Skills	1	0	1	
	OFTE 120	Keyboarding	0	0	0						
Total			18	0	18	Total			16	0	16
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	KISW 225	Kiswahili Morphology and Syntax	3	0	3	KISW 265	Language Skills in Kiswahili II	3	0	3	
	KISW 210	Theory and Practice of Translations I	3	0	3	KISW 285	Second Language Learning	3	0	3	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	BIOL 105	Human Biology	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Christian Ethics	2	0	2	
	CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
						Minor	3	0	3		
Total			14	0	14	Total			17	0	17
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	KISW 320	Sociolinguistics in Kiswahili	3	0	3	KISW 360	Oral Literature in Kiswahili	3	0	3	
	KISW 315	Theories of Literary Criticism	3	0	3	KISW 370	Contemporary Kiswahili Play	3	0	3	
	KISW 350	Contemporary Kiswahili Novel	3	0	3	KISW 395	Research Methods in Language and Literature	3	0	3	
		Elective	3	0	3		Elective	3	0	3	
		Minor	9	0	9		Minor	6	0	6	
Total			18	0	18	Total			18	0	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	KISW 410	Kiswahili Poetry	3	0	3	KISW 422	Textual and Discourse Analysis in Kiswahili	3	0	3	
	KISW 420	Semantics and Pragmatics in Kiswahili	3	0	3	KISW 425	Senior Seminar in Kiswahili	3	0	3	
		Elective	3	0	3		Elective	3	0	3	
		Minor	6	0	6		Minor	6	0	6	
Total			15	0	15	Total			15	0	15

Bachelor of Arts in JOURNALISM AND MASS COMMUNICATION [ELECTRONIC MEDIA OPTION]

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2	
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HLED 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	COMM 128	Mass Media, Culture and Society	3	0	3	
	COMM 121	Fundamentals of Journalism	3	0	3	COMM 126	Media Law and Ethics	3	0	3	
	COMM 122	Introduction to Mass Communication	3	0	3	COMM 129	Adventist Media Ministries	3	0	3	
	Total			19	0	19	Total			19	0
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	BIOL 105	Human Biology	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	COEM 221	Studio Equipment Operations for Radio	3	0	3	
	COEM 201	Introduction to Electronic Media	3	0	3	COMM 230	News Gathering and Reporting	3	0	3	
	COEM 211	Language of Broadcasting	3	0	3	COMM 240	Writing for the Mass Media	3	0	3	
	Total			16	0	16	Total			17	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COMM 341	Editing in Print and Electronic Media	3	0	3	COEM 321	Television Production	3	0	3	
	COEM 301	Script Writing for Electronic Media	3	0	3	COEM 331	Film Production	3	0	3	
	COEM 311	Modern Radio Production	3	0	3	COPA 343	Advertising in Mass Media	3	0	3	
		Elective	2	0	2		Minor	9	0	9	
		Minor	6	0	6						
Total			17	0	17	Total			18	0	18
Inter-Semester						COMM 490	Internship in Mass Media	3	0	3	
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COEM 401	Broadcast Programming	3	0	3	COEM 421	Broadcast in News Production	3	0	3	
	COEM 411	Video Production	3	0	3	COMM 482	Research Methods in Mass Media II	2	0	2	
	COMM 481	Research Methods in Mass Media I	2	0	2		Elective	2	0	2	
		Courses in minor	6	0	6		Minor	9	0	9	
Total			14	0	14	Total			16	0	16

Bachelor of Arts in JOURNALISM AND MASS COMMUNICATION

[PRINT MEDIA OPTION]

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2	
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HLED 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	COMM 128	Mass Media, Culture and Society	3	0	3	
	COMM 121	Fundamentals of Journalism	3	0	3	COMM 126	Media Law and Ethics	3	0	3	
	COMM 122	Introduction to Mass Communication	3	0	3	COMM 129	Adventist Media Ministries	3	0	3	
Total			19	0	19	Total			19	0	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	BIOL 105	Human Biology	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	COPM 220	Graphics Design and Desktop Publishing	3	0	3	
	COPM 200	Introduction to Print Media	3	0	3	COMM 230	News Gathering and Reporting	3	0	3	
	COPM 210	Language of the Press	3	0	3	COMM 240	Writing for the Mass Media	3	0	3	
		Minor	3	0	3						
Total			19	0	19	Total			17	0	17
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COMM 260	Online Journalism	3	0	3	COPM 320	Feature and Editorial Writing	3	0	3	
	COPM 300	Editing Skills for Print Media	3	0	3	COPA 343	Advertising in Mass Media	3	0	3	
	COPM 315	School Yearbook Production	3	0	3		Minor	12	0	12	
	COPM 310	Photography and Photojournalism	3	0	3						
		Elective	2	0	2						
		Minor	3	0	3						
Total			17	0	17	Total			18	0	18
Inter-Semester					COMM 490	Internship in Mass Media	3	0	3		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COPM 450	Book Writing and Publishing	3	0	3	COPM 460	Literature Evangelism in Print Media	3	0	3	
	COPM 400	Newspaper and Magazine Production	3	0	3	COMM 482	Research Methods in Mass Media II	2	0	2	
	COMM 481	Research Methods in Mass Media I	2	0	2		Elective	2	0	2	
		Minor	6	0	6		Minor	6	0	6	
Total			14	0	14	Total			13	0	13

Bachelor of Arts in JOURNALISM AND MASS COMMUNICATION [PUBLIC RELATIONS AND ADVERTISING OPTION]

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2	
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HLED 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	COMM 128	Mass Media, Culture and Society	3	0	3	
	COMM 121	Fundamentals of Journalism	3	0	3	COMM 126	Media Law and Ethics	3	0	3	
	COMM 122	Introduction to Mass Communication	3	0	3	COMM 129	Adventist Media Ministries	3	0	3	
Total			19	0	19	Total			19	0	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	HIST 119/ HIST 111	Issues in Development Studies/ Concepts of World Civilization	2	0	2	BIOL 105	Human Biology	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	COPA 233	Language of Advertising	3	0	3	
	COPA 203	Introduction to Public Relations	3	0	3	COMM 240	Writing for the Mass Media	3	0	3	
	COPA 204	Fundamentals of Advertising	3	0	3	COPA 248	Advertising and Promotion	3	0	3	
Total			16	0	16	Total			17	0	17
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COPA 303	Public Relations Writing	3	0	3	COPA 333	Contemporary Advertising	3	0	3	
	COPA 313	Public Relations Campaign	3	0	3	COPA 343	Advertising in the Mass Media	3	0	3	
	COPA 323	Advertising Research	3	0	3	COPA 353	Advertising Management	3	0	3	
		Elective	2	0	2		Minor	9	0	9	
		Minor	6	0	6						
Total			17	0	17	Total			18	0	18
Inter-Semester					COMM 490	Internship in Mass Media	3	0	3		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	COPA 403	Public Relations and Social Media	3	0	3	COMM 482	Research Methods in Mass Media II	2	0	2	
	COPA 413	International Public Relations	3	0	3		Elective	2	0	2	
	COPA 423	International Advertising	3	0	3	MINOR	Courses in minor	9	0	9	
	COMM 481	Research Methods in Mass Media I	2	0	2						
		Minor	6	0	6						
Total			17	0	17	Total			13	0	13

Bachelor of Arts in MUSIC

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

Note: that the BA in Music has two concentrations: Piano or Voice. All music students must take a major and a minor instrument.

Students taking Piano as a major instrument are required to take Voice as a minor instrument and all students taking Voice as a major instrument must take piano as a minor instrument. A minor instrument comprises of Concentration I-IV of the said instrument. They are also required to take ABRSM grade VII for their major instrument and grade V ABRSM examinations for their minor instrument before graduation.

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	MUPF 101/ MUPF 131	Piano I/ Voice I	1	0	1	MUPF 102/ MUPF 131	Piano II/ Voice II	1	0	1
	MUPF 171	Musicianship I	2	0	2	MUPF 172	Musicianship II	2	0	2
	MUTH 160	Music Theory and Composition I	2	0	2	MUTH 161	Music Theory and Composition II	2	0	2
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	LITE 151	Introduction to Literary Appreciation	2	0	2	BIOL 105	Human Biology	2	0	2
	MATH 100	Foundations of Mathematics	3	0	3	HLED 110	Health Principles	1	0	1
	OFTE 120	Keyboarding	0	0	0	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2
	PEAC 107	Physical and Recreational Activities	1	0	1	INSY 107	Information Technology Today	2	0	2
	PSYC 101	Introduction to Psychology	2	0	2	MGNG 103	Basic Management and Entrepreneurial Skills	2	0	2
	RELH 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2
							Vocational Skill	1	0	1
	Total		18	0	18	Total		18	0	18
2nd	MUHL 280	Survey of Music History and Literature I	2	0	2	MUBS 200	Introduction to Music Business	2	0	2
	MUPF 201/ MUPF 231	Piano III/ Voice III	1	0	1	MUPF 202/ MUPF 232	Piano IV/ Voice IV	1	0	1
	MUPF 271	Advanced Musicianship	2	0	2	MUCH 276	Church Music	2	0	2
	MUTH 260	Music Theory and Composition III	2	0	2	MUHL 281	Survey of Music History and Literature II	2	0	2
	AGRI 205	Principles of Agricultural Technology	2	0	2	MUPF 241	Strings	1	0	1
	ENVI 227	Environment and Society	2	0	2	MUPF 242	Woodwinds	1	0	1
	HIST 111	Concepts of World Civilization	2	0	2	MUTC 247	Introduction to Music Technology	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	MUTH 261	Music Theory and Composition IV	2	0	2
	RELT 255	Introduction to Christian Ethics	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
		Minor Instrument I	1	0	1	RELT 207	Christian Beliefs	3	0	3
	Total		18	0	18	Total		18	0	18
3rd	MUAF 312	African Music	2	0	2	MUAF 313	Kenyan Music	2	0	2
	MUCH 376	Introduction to Hymnology	2	0	2	MUED 391	Conducting I	2	0	2
	MUET 311	Introduction to Ethnomusicology	2	0	2	MUET 312	World Music	2	0	2
	MUHL 380	Survey of Music History and Literature III	2	0	2	MUPF 302	Piano VI/Voice VI	1	0	1
	MUHL 381/ MUHL 382	Piano Literature (Piano Majors)/ Vocal Literature (Voice Majors)	2	0	2	MUPF 342	Percussion	1	0	1
	MUPF 301/ MUPF 331	Piano V/ Voice V	1	0	1	MUPF 365	Instrumental Ensemble	2	0	2

	MUPF 341	Brass	1	0	1	MUTH 361	Introduction to Counterpoint	2	0	2	
	MUPF 355	Choral Ensemble	2	0	2		Minor Instrument III	1	0	1	
	MUTH 360	Music Theory and Composition V	2	0	2		Elective(s)	2	0	2	
		Minor Instrument II	1	0	1						
		Elective	1	0	1						
Total			18	0	18	Total			15	0	15
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MUPF 401/ MUPF 431	Piano VII/ Voice VII	1	0	1	MUPF 402/ MUPF 432	Piano VIII/ Voice VIII	1	0	1	
	MUED 492	Conducting II	2	0	2	MUPS 416	Psychology of Music	2	0	2	
	MUPH 415	Philosophy of Music	2	0	2	MURS 422	Music Research Project	2	0	2	
	MURS 421	Research Methods in Music	2	0	2	MUTH 463	Advanced Composition and Arranging	2	0	2	
	MUTH 462	Form and Analysis	2	0	2	MUTH 464	Orchestration	2	0	2	
		Minor Instrument IV	1	0	1		Minor Instrument V	1	0	1	
		Elective(s)	2	0	2		Electives(s)	2	0	2	
	Total			12	0	12	Total			12	0
INTER-SEMESTER					MUPR	Music Practicum	3	0	3		

Bachelor of MUSIC IN MUSIC EDUCATION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MUPF 101	Piano I	1	0	1	MUPF 102	Piano II	1	0	1	
	MUPF 131	Voice I	1	0	1	MUPF 131	Voice II	1	0	1	
	MUPF 171	Musicianship I	2	0	2	MUPF 172	Musicianship II	2	0	2	
	MUTH 160	Music Theory and Composition I	2	0	2	MUTH 161	Music Theory and Composition II	2	0	2	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151	Introduction to Literary Appreciation	2	0	2	BIOL 105	Human Biology	2	0	2	
	MATH 100	Foundations of Mathematics	3	0	3	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	
	OFTE 120	Keyboarding	0	0	0	INSY 107	Information Technology Today	2	0	2	
	PSYC 101	Introduction to Psychology	2	0	2	MGNG 103	Basic Management and Entrepreneurial Skills	2	0	2	
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3	
Total			18	0	18	Total			18	0	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MUHL 280	Survey of Music History and Literature I	2	0	2	MUCH 276	Church Music	2	0	2	
	MUPF 201	Piano III	1	0	1	MUHL 281	Survey of Music History and Literature II	2	0	2	
	MUPF 231	Voice III	1	0	1	MUPF 202	Piano IV	1	0	1	
	MUPF 271	Advanced Musicianship	2	0	2	MUPF 231	Voice IV	1	0	1	
	MUTH 260	Music Theory and Composition III	2	0	2	MUPF 241	Strings	1	0	1	
	HIST 111	Concepts of World Civilization	2	0	2	MUPF 242	Woodwinds	1	0	1	
	HLED 110	Health Principles	1	0	1	MUTC 247	Introduction to Music Technology	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	MUTH 261	Music Theory and Composition IV	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2		Vocational Skill	1	0	1	
	RELT 255	Introduction to Christian Ethics	2	0	2		Cognate	3	0	3	
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2		Elective(s)	2	0	2	
	Total			18	0	18	Total			18	0

3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	MUAF 312	African Music	2	0	2	MUAF 313	Kenyan Music	2	0	2
	MUCH 376	Introduction to Hymnology	2	0	2	MUED 326	Music Education Methodology	2	0	2
	MUED 325	Introduction to Music Education	2	0	2	MUED 327	Piano Pedagogy	2	0	2
	MUET 311	Introduction to Ethnomusicology	2	0	2	MUED 328	Vocal Pedagogy	2	0	2
	MUHL 380	Survey of Music History and Literature III	2	0	2	MUED 391	Conducting I	2	0	2
	MUPF 301	Piano V	1	0	1	MUET 312	World Music	2	0	2
	MUPF 331	Voice V	1	0	1	MUPF 342	Percussion	1	0	1
	MUPF 341	Brass	1	0	1	MUPF 343	Guitar	1	0	1
	MUPF 355	Choral Ensemble	2	0	2	MUPF 365	Instrumental Ensemble	2	0	2
	MUTH 360	Music Theory and Composition V	2	0	2	MUTH 361	Introduction to Counterpoint	2	0	2
	Total		17	0	17	Total		18	0	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	MUED 492	Conducting II	2	0	2	MURS 422	Music Research Project	2	0	2
	MUPH 415	Philosophy of Music	2	0	2	MUPS 416	Psychology of Music	2	0	2
	MURS 421	Research Methods in Music	2	0	2	MUTH 463	Advanced Composition and Arranging	2	0	2
	MUTH 462	Form and Analysis	2	0	2	MUTH 464	Orchestration	2	0	2
		<i>Cognates</i>	6	0	6		<i>Cognate</i>	3	0	3
		<i>Elective(s)</i>	2	0	2		<i>Elective(s)</i>	2	0	2
	Total		16	0	16	Total		13	0	13
	INTER-SEMESTER					MUED 429	Music Teaching Practicum	3	0	3

Bachelor of Arts in SOCIAL WORK

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 105/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2	
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HLED 110	Health Principles	1	0	1	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	RELT 155	Adventist Heritage	2	0	2	PHYS 100	Concepts of Physical Sciences	2	0	2	
	SOWK 111	Introduction to Social Work	3	0	3	SWFI 207	Family Issues	2	0	2	
	SWES 150	Ethics in Social Work	2	0	2	SOWK 230	Social Work Theory and Practice	3	0	3	
		Minor	3	0	3		Minor	5	0	5	
Total			20	0	20	Total			20	0	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agricultural Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 105	Human Biology	2	0	2	
	ENVI 227/ CHEM 200/ TCED 231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	SWSL 254	Social Work and the Stages of Life Cycle	3	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	SWMC 255	Multiculture in Social Work	3	0	3	
	SWCW 240	Family and Child Welfare	3	0	3		Elective	3	0	3	
		Minor	8	0	8		Minor	5	0	5	
Total			20	0	20	Total			20	0	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	SWCA 256	Child and Spouse Abuse	3	0	3	SWBS 401	Basic Statistics for Social Sciences	3	0	3	
	SWMD 275	Marriage Dynamics and Growth	3	0	3	SWES 301	Entrepreneurship Skills in Social Work	3	0	3	
	SWCI 280	Contemporary Issues in Social Work	3	0	3	SWSR 303	Social Deviation, Rehabilitation and Re-Integration	3	0	3	
	SWSA 290	Substance Abuse, Crisis and Mental Health	3	0	3	SWHB 310	Human Behavior	3	0	3	
	SWSP 300	Social Policy and Administration	3	0	3	SWCA 356	Child and Spouse Abuse	3	0	3	
		Minor	3	0	3	SWSL 400	Social Law	3	0	3	
		Elective	2	0	2		Minor	3	0	3	
Total			20	0	20	Total			21	0	21
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	SWSS 407	Seminar in Professional Social Work	3	0	3	SWPE 450	Professional Field Work Experience	3	0	3	
	SWPC 410	Parent/Child Relationship	3	0	3						
	SWED 420	Exceptional Child	3	0	3						
	DEST 370	Project Planning, Implementation, Monitoring and Evaluation	4	0	3						
	DEST 373	Disaster Preparedness, Mitigation and Management	3	0	3						
		Minor	3	0	3						
Total			19	0	19	Total			3	0	3

COURSE DESCRIPTIONS

ARCH 101 Principles of Archaeology 3 Credits

The meaning, role and functions of archaeology, the evolution and development of archaeology as a discipline of study during the 19th and 20th centuries will be studied. The interdisciplinary nature of archaeological research; the nature of the archaeological record; locating and dating archaeological sites; the preservation and recovery of archaeological finds; contributions of archaeology to the development of world civilizations; history and other areas of study for example religion will be explored.

ARCH 200 Archaeology of East Africa 3 Credits

This course introduces the students to archaeological activities; significance of material culture and the major archaeological sites in East Africa. The study early stone age; middle Stone Age; late Stone Age; the metallurgy age and the lifestyle and civilization of pre-historic man in East Africa will be attempted.

ARCH 220 Foundations of Archaeology 3 Credits

The meaning, role and functions of archaeology, the evolution and development of archaeology as a discipline of study during the 19th and 20th centuries will be studied. The interdisciplinary nature of archaeological research; the nature of the archaeological record; locating and dating archaeological sites; the preservation and recovery of archaeological finds; contributions of archaeology to the development of world civilizations; history and other areas of study for example religion will be explored.

ARCH 310 Studies on Origins of Modern Man and Society 3 Credits

This course will expose the students to various theories on the origin of man. Evolution theory (Darwinian and other theories) and their shortcomings; creation theory; scientific theories and their impact on society will be explored. Material evidence supporting of man's occupancy of earth through millennia.

COEM 201 Introduction to Electronic Media 3 Credits

This is an introductory course covering electronic media with focus on television, radio, recording industry, motion picture industry, and internet and game industries. The course introduces students to the history, characteristics, concepts related to electronic media. Some of the topics to be covered include meaning of electronic media, brief history consisting of invention and development, uses of different electronic media, telephony, video, navigation, radar, digital radio, amateur radio service, unlicensed radio services, radio control(RC), electromagnetic spectrum etc. Other topics to be covered include early TV station, early programming, evolution of television entertainment, film, satellite, video cassette, internet, mobile phone, computers etc. (*Prerequisite: COMM120*).

COEM 211 Language for Broadcasting 3 Credits

This course examines the type of language that is used in broadcasting using English as illustration. Language of broadcasting a type of language for special purposes meant for television or radio broadcasting. Some of the topics to be covered include language specialization for broadcasting, the nature of broadcasting language, the function of broadcasting, features of broadcasting language, different kinds of broadcasting language, what to look for in broadcasting language, spoken versus written language, language of the ear, language of the eyes, good pronunciation and accent, good grammar, diction etc.

Three lecture hours and one session of three-hour practicum each week.

COEM 221 Studio Equipment and Operations 3 Credits

This course has both the theoretical and hands-on sections. The course is aimed to train students with basic skills of operating different equipment in the studio for radio and television broadcasting. Some of the basic equipment that students should familiarize themselves include setting and operating different types of microphones, how to operate the consoles (mixer), loudspeakers and monitoring, analogue recording, digital audio tape recorders, equalizers, compressors and limiters, equipment and software for noise reduction, television cameras operations and picture composition, types of cameras, cameras lenses, sound techniques, etc. The course also introduces electronics which can assist students the wiring of the studio in order to fix basic technical problems. Students will go for a field trip to visit a few television and radio studios in some media houses. Three lecture hours and one session of three hours practicum per week.

COEM 231 Voice and Diction for Broadcasting 2 Credits

This course aims at training students' voice and diction for radio and television broadcasting purposes. Some of the topics to be covered in this course include functions of sound, producing speech, listening and hearing, pace of voice, pitch of voice, tone of voice, the use of diction in radio and television, sound wave, frequency of pitch, amplitude and loudness, etc. The course will also look at voice using a Christian perspective by using Jesus Christ as a model. Other topics to be discussed include clarity and purity of utterance, importance of general health for a clear voice, proper use of the voice, danger of excessive emotion, effects of words etc. The student will practice the training of voice until they reach the recommended standards. Two lecture hour and one session of three hours practicum per week.

COEM 271 Citizen Journalism 2 Credits

This course is an exploration of the concept of citizen journalism. Some of the topics to be covered include the meaning of citizen journalism, the development of citizen journalism, citizen journalism versus traditional journalism, citizen content, ethics in citizen journalism, blogosphere and citizen journalism, trends in citizen journalism, internet impact on the media, blogs and citizen journalism, citizen journalism in Africa, advantages and disadvantages of citizen journalism, the future of citizen journalism, challenges of citizen journalism. Two lecture hour and one session of three hours practicum per week.

COEM 301 Script Writing for Electronic Media 3 Credits

This course trains students in writing a script for electronic media such as radio, television, films program etc. Some of the topics to be covered include the importance of a script in radio and television broadcasting, script conventions for radio and television, script writing for films, printed script versus electronic script, elements of a script such as header, story, story tags, lead-in to voice report, the use spoken language in script for radio and television, the use of punctuation marks, jargon and technical words, active versus passive voice, being professional and being creative in script writing, writers' jobs and writers' markets etc. Three lecture hours and one session of three hours practicum each week. *Prerequisite: COMM 240*.

COEM 308 Video Recording and Editing 2 Credits

The course provides the student with the theoretical and practical skills needed for sound and video production. Some of the topics to be covered include thorough grounding in the basics of digital video, basic tools for video recording, camcorder, computer software for video editing, preparation for shooting videos, editing, basic camera anatomy, camera care, the camera and the computer, the rule of thirds, using multiple cameras, special projects: how to shoot wedding, graduations and other ceremonies. Two lecture hour and one session of three hours practicum per week.

COEM 311 Modern Radio Production 3 Credits

This course covers the general principles of radio production, techniques and communication theory. Some of the topics to be covered include the meaning of radio production, the producer evolution, radio broadcasting, radio production Studios, pre-production stages, structuring a program, post-production editing, crew for production, audio editing, recording and playback devices, microphones and sounds, writing for radio, electronic editing, recorded program production, live, on-Air production, computer in radio production, the console, dramatic element in radio production, commercial production, news production, the radio studios, ethics, writing for the ear, news policy and practice, interviewing, news reading and presentation, digital editing, creating an audio library, participation, making radio commercials, recording and playback devices, microphones and sound, electronic editing, recorded program production, commercial production, news production, remote and sports production, production, programming, and the modern format. Three lecture hours and one session of three hours practicum per week.

COEM 321 Television Production 3 Credits

This course covers the general principles and techniques about television production. Some of the topics to be covered include the foundation of television production, the television production process, the producer in preproduction, the script, the director in preproduction, analogue and digital television, the television camera, lenses, camera operation and picture composition, creating an effective image, television graphics, make ups and costumes, audio sound pickup and control, lighting, techniques of television lighting, video recording and storage systems, design, television talent, the director in production, field production and big remotes, production techniques, postproduction editing, editing functions and principles, distributing your production. Two lecture hours and one session of three hours practicum per week.

COEM 331 Film Production 3 Credits

This course covers the general principles of film production. Some of the topics to be covered include the basics of film production, the role of the production team, basic equipment required for film production, the production office, basic accounting in film production, the importance of script in film production, stages involved in film production, insurance requirements, the use of music in film production, safety issues in film production, selecting a good location for film shooting, travelling and housing, making a low budget for film production, commercial production, post production overview, the importance of editing in film production, etc. Three lecture hours and one session of three hours practicum per week.

COMM 341 Editing in Print and Electronic Media 2 Credits

The course is a study of editing in the electronic media mainly for audio, video and films. Some of the topics to be covered include

meaning of editing in electronic media, types of editing software used in electronic media, editing functions, editing principles, nonlinear editing, nonlinear editing system, pre-editing phase, preparation phase, video editing phase, audio editing phase, editing for continuity, complexity editing, transitions in complexity editing. Three lecture hours and one session of three hours practicum each week.

COEM 401 Broadcast Programming 3 Credits

This course is an introduction to broadcast programming strategies and practices. Some of the topic to be covered include introduction to programming, the meaning of broadcast programming, frameworks for media programming, understanding key programming practices, audio programming practices, television programming practices, non-prime time network programming, television station programming strategies, music programming, informational programming, program selection, scheduling and elevation, network primetime programming, network program types, television programming, public broadcasting, radio programming, general programming regulations, techniques and strategies used in the programming industry. Three lecture hours and one session of three hours practicum per week.

COEM 421 Broadcast News Production 3 Credits

The course provides the student with the theoretical and practical skills needed for broadcast news production. Some of the topics to be covered include the meaning of news, newsroom structure, the producer's role in the newsroom, the evolution of news production, the producing process, writing, producing for television, producing for radio and the internet, weather and sports, surviving the newsroom, newsroom relationships, issues in producing, the job market, finding a producing job. Three lecture hours and one session of three hours practicum each week.

COMM 121 Fundamentals of Journalism 3 Credits

This course looks at the most basics and important aspects of journalism. Some of the topics to be covered include various definitions of journalism, history of journalism, different areas of specialization for journalism such as business journalism, entertainment journalism, fashion journalism, environmental journalism, political journalism, sports journalism, weather forecasting journalism, types of journalism such as advocacy journalism, blogging journalism, broadcast journalism, citizen journalism, civic journalism, investigative journalism, new journalism, online journalism, photojournalism, fourth estate, freedom of the press, code of ethics for journalists in Kenya, the role of the journalist in a democratic society. Students for this course must register with the Media Council of Kenya as student journalist. Three lectures hours and a one session of practicum each week.

COMM 122 Introduction to Mass Communication 3 Credits

An overview of communication and mass communication which discusses the meaning of communication, mass communication, types of mass communication, the nature and history of mass communication, traditional mass communication organization, models for studying mass communication, the role of mass communication, functions of mass communication for society, the future of mass media. This course provides a foundation to major areas of mass communication which include Print Media (books, newspapers, and magazines), Electronic Media (Radio, Television, the internet and the world wide web, motion pictures), Public Relations and Advertising. There will be a field trip to some media houses for print media, electronic media and

public relations. Three lecture hours and one three hours session of practicum each week.

COMM 126 Media Law and Ethics 3 Credits

This course is an examination of important legal and ethical issues that affect professional journalists in radio broadcasting, print media, television broadcasting, and public relations. It includes topics such as the meaning of media law, media ethics, the application of Christian ethics in the media, journalistic ethics, copyright law, intellectual property, fair use, understanding libel, obscenity, defamation and privacy, freedom of information, freedom of speech, freedom of the press, code of ethics for a journalist, Kenya Media Act 2007, Kenya Media Bill 2010, access to information laws and procedures, the bases of ethical systems, as well as issues raised by the growth of the internet, the use of digital technologies, and the creation of media content. Students will have an educational trip to the Media Council of Kenya and KECOBO in Nairobi.

COMM 128 Mass Media, Culture and Society 3 Credits

This course is an examination of the relationship between mass communication and society which include institutional functions and socio-economic, structural-cultural and other factors affecting mass communication processes. The course is critical investigation into the operation of mass media and it explores the relationship between competing social, cultural and economic agendas, and how these agendas are filtered through the press and broadcast media. Competing theoretical approaches are introduced to help students think critically about the place of the mass media in society. Students will have field work to research on the culture of the community.

COMM 129 Adventist Media Ministries 3 Credits

The course is a description of the media ministries as used by the Seventh-day Adventist Church. There are a number of media ministries associated with the Seventh-day Adventist Church. These come in print and electronic forms mainly radio, television, and new media. Some of the topics to be covered include historical background of the media ministries in the SDA Church, Goals and objectives of media ministries in the SDA Church, print media in the SDA Church, and electronic media in the SDA Church. In the print media, the course will focus on the publishing ministry looking into the early history of the publishing work, establishment and operation of publishing houses, perils facing publishing-house leaders, the output of the publishing house, successful field publishing leadership, counsels for marketing church literature etc. Students will have an educational field trip to visit some of the media centers of the SDA Church within the country and gain first-hand experience on how the SDA media ministries function. This will include publishing houses, radio stations, television stations etc. Three lectures hours and one session of a three-hour practicum per week.

COMM 230 News Gathering and Reporting 3 Credits

This course is an examination of how news is gathered and reported. The course looks at the process of collecting news and recording it. Some of the topics to be covered include the meaning of news, qualities and qualifications of a news reporter, characteristics and determinants of news, organization and management of newspaper establishment, elements of good news story writing, the inverted pyramid, the five "W"s and the "H", the craft of interviewing for effective news story, quotes and attribution, searches for information for news story, news sources, news releases, covering speeches etc. Three lecture

hours and one session of three-hour practicum per week.

COMM 240 Writing Skills for Mass Media 3 Credits

This is a course is an overview for writing in different types of mass media. Some of the topics to be covered include basic tools of writing, style and the style book, writing in the media environment, writing for print, writing for the web, writing for broadcast, writing advertising copy, writing for public relations, the writer and the law. The emphasis is placed on clarity, accuracy, completeness, the audience and readability. Students will apply the skills in this course and produce a project at the end of the course. Three lecture hours and one session of three-hour practicum per week.

COMM 260 Online Journalism 3 Credits

This course is an overview of online and digital journalism. The course deals with topics such as the foundations of online and digital journalism, history of online and digital journalism, traditional journalism and new media, what makes online journalism different, how to identify different kinds of multimedia formats, the role of interactivity in journalism, how to start online newspapers, magazine or journals, content and design of online newspapers, magazine or journals, the basics of setting up an online newspaper, getting source materials, designing the look of publication, web site development, blogging, etc. Students will work as a group and come up with a project of online newspaper, magazine or journal. Three lecture hours and one session of three-hour practicum per week.

COMM 309 Sports Journalism 2 Credits

This course introduces sports journalism by looking at an overview of sports journalism from its origins up to now. Some of the topics to be discussed include the meaning of sports journalism, the origins of sports journalism, different types of sports that are reported in the media, terminology used in sports journalism, reporting sports journalism in print media, reporting sports journalism in electronic media, research in sports journalism, the use of language in sports journalism, challenges in reporting sports journalism. Students will practice sport journalism in print or electronic media by reporting on local sports. Two lecture hour and one session of three hours practicum per week.

COMM 360 Investigative Journalism 2 Credits

This course examines investigative journalism as it is used in mass media. Some of the topics to be discussed include the meaning of investigative journalism, the objectives of investigative journalism, how to carry research in investigative reporting, the origins of investigative journalism, media law and investigative journalism, challenges of investigative journalism, rise of American investigative journalism, models of investigative journalism centers, investigative reporters, Muckraking Investigative Journalism, some case studies of investigative reporters. Two lecture hour and one session of three hours practicum per week.

COMM 481 Research Methods in Mass Media I 2 Credits

The first part of the two sections-series course will introduce students to research methods in the mass media with application in print media, electronic media, public relations and advertising. In this part, students will be guided to write a research proposal on a topic within their area of specialization. The proposal will contain the basic three chapters which include the introduction, literature review and research methodology. Other topics to be discussed include meaning of research, elements of a research

proposal, research ethics, scientific method, sampling, qualitative research methods. The research proposal will be presented at the end of the semester as a part of the final examination. *Prerequisite: ENGL 105.*

COMM 482 Research Methods in Mass Media II **2 Credits**

This second part of the course will guide the students to write a research project using the research proposal prepared in part I. The main focus of the course will be to guide the student write the main sections of the research project namely the introduction, literature review, research methodology, results and discussion, conclusion and recommendations. The course will also discuss the preliminary sections and appendices such as writing an abstract, preparing a cover page, table of content, writing the bibliography, appendixes etc. Other topics to be discussed include introduction to statistics, hypothesis testing, basic statistical procedures, data analysis etc. By the end of the course, the student guided by the supervisor approved by the department will write a major project between 10,000 to 12,000 words and defend it. *Prerequisite: COMM 481.*

COMM 490 Internship in Mass Media **3 Credits**

This is a ten (10) to twelve (12) weeks hands-on experience whereby students are attached to a mass media organization in order to acquire first-hand experience. Students are given an opportunity to apply the theory that they were taught and combine the same theory with career experience in mass media industry. At least 30 hours per week must be devoted to different tasks in different departments and the student must clock a minimum of 300 hours during the ten to twelve weeks internship. The student will be evaluated by both the direct supervisor in each department within the print media organization and the course instructor. There will be a weekly report written by the student and at the end of the internship, the student will produce a comprehensive report that will contain as exhibits the work done in different departments during the period of the internship. *Prerequisite: must complete all the courses in the area of specialization.*

COPA 203 Introduction to Public Relations **3 Credits**

This course introduces students to the field of public relations. Some of the topics to be covered include different definitions and role of public relations, the history and growth of public relations, ethics and professionalism in public relations, communication in public relations, difference between advertising and PR, PR program, tools of PR, qualities of a public relations officer, image of PR and crisis management, code of ethics for PR firms, role of photography in PR, importance of marketing research for PR practitioners, Internal communication, careers in public relations, the value of public relations, Planning for results, Theoretical framework, Specialist PR, Corporate PR, Crisis PR.

COPA 204 Fundamentals of Advertising **3 Credits**

This course introduces students to the field of advertising. Some of the topics to be covered include advertising defined, evolution of the definition of advertising, the components of modern advertising, roles and types of advertising, the key players in advertising, the development of advertising, advertising and publicity, history of advertising, objectives of advertising, advertising role in marketing, advertising and society, difference between advertising and marketing, designing advertising materials, the role of technology in advertising, the advertising business, Advertising in contemporary culture. Three lecture hours and one session of a three-hour practicum per week.

COPA 233 Language of Advertising **3 Credits**

This is a language for special purposes course focusing on the language used for advertising. The course provides a theoretical and practical foundation for a persuasive type of language to be used in advertising. Some of the topics to be covered include the nature of advertising, the function of advertising, features of advertising language, types of advertising, ethical issues in language used in advertising, advertising in print and electronic media, international advertising, analyzing language use in different adverts, translation of advertising messages etc. Students will apply the theory by preparing different types of adverts in English and any other language(s) they intend to use. Three lecture hours and one session of a three-hour practicum per week.

COPA 248 Advertising and Promotion **3 Credits**

This course covers different aspects of advertising and promotion. Some of the topics to be covered include introduction to advertising and promotion, the role of communication in advertising, promotion, media planning and selection, sales promotion techniques and procedures, evaluating of advertising effectiveness, advertising and promotion budgeting, theorizing advertising, the brand and integrated marketing communications planning, advertising agencies – organizing creative work, strategy and creativity, promotional media in the digital age, non-advertising promotion, international advertising, ethics and regulations of advertising and promotion, research in advertising, managing advertising agencies. Three lecture hours and one session of three hours practicum per week.

COPA 303 Public Relations Writing **3 Credits**

This course introduces relevant writing skills for PR professionals. Students will be exposed to different types of writing that they are likely to encounter in their work. They will learn writing skills for advertising, marketing communication and public relations. Some of the topics to be covered include meaning of public relations writing, the tools of public relations writer, the process of public relations writing, planning and research, choosing the right message and medium, media relations and placement, design, printing, and desktop publishing, news releases and backgrounders, newsletters, magazines, and feature writing, brochures and other information places, print advertising, television and radio, speeches and presentations, computer writing and the internet, ethics and public relations writing, web site design etc. Three lecture hours and one session of three hours practicum per week.

COPA 312 New Technologies in Public Relations **2 Credits**

This course will equip students with the knowledge and practical skills in the use of new technologies for effective public relations. Some of the topics to be covered in this course include working smart using new tools, the computer, the internet and public relations, dictation and voice generation, public relations management tools, desktop publishing,, mailing lists, online conferences, graphics design and photography, facsimile transmission, news release delivery, video and audio news release distribution, television, radio, and web monitoring services, teleconferencing, web conferencing, satellite media tours, cell phones, personal digital assistants, electronic blackboards, social media etc. Students will have a hands-on experience on the use of different tools in the laboratory . Three lecture hours and one session of three hours practicum per week.

COPA 313 Public Relations Campaign **3 Credits**

This course will equip students with a step by step approach on

the strategic campaign process used in public relations practice. Some of the topics to be covered include the knowledge of developing campaign for public relations, the meaning of public relations campaign, campaign development process, Identifying the target market, writing and placing news release, maximizing alternative press tools, creating press kits, creating brochures, communicating through newsletters, producing annual reports, understanding advertising, pitching and placing radio and TV, producing videos and DVDs, Using the internet, planning dinners and special events, reviewing and revising PR plan. Three lecture hours and one session of three hours practicum per week.

COPA 323 Advertising Research 3 Credits

This course introduces students to the concepts of research in advertising. Some of the topics to be covered include meaning research, anthropology and research, sociology and advertising, social class and stratification, CUBE Concept: Consumer behavior Research, family Life Cycle and buying Behavior, Psychology and advertising, research and the invisible brand, the changing role of research, the series of research steps in advertising, market, product, competitive, and consumer research, creative research and success in advertising, advertising strategy or message research, testing creative research, post-test research etc. Three lecture hours and one session of three hours field research for advertising per week.

COPA 324 Advertising Campaign Strategy 2 Credits

This course aims to empower students with essential skills to develop campaign in advertising. Some of the topics to be covered include meaning of advertising campaign, steps involved in advertising campaign, consumer mindset, laying the research foundation, understanding the company and consumer, map out the situation: knows the market, product and competition, turning findings into marketing and communication goals, building the marketing strategy, outlining the communication strategy and messaging, devising the campaign concept, defining the consumer touchpoint, planning the media strategy and tactics, evaluating the effectiveness of the campaign, locking down the pitch, Evaluating the effectiveness of the campaign. Three lecture hours and one session of three hours practicum per week.

COPA 325 Marketing and Public Relations 2 Credits

This course is an introduction to marketing and public relations. Some of the topics to be covered include the meaning of marketing, difference between marketing and public relations, how to use marketing in public relations, the promotional mix, the role of advertising and promotion in the marketing process, marketing strategy and plan, the four P's in marketing, developing a marketing program, marketing research, media relations, building beneficial partnerships, public relations and fund raising, the marketing plan, making budget decisions, the global perspective, ethics in marketing and PR, the marketing communications mix, marketing public relations and the organization it serves, the MPR Framework – Objectives, Target, Connectors, Message and Measure, About the Media, Non Media Connectors and word of mouth, Building a connectors List, The Press Kit and Press release, social Media, events, experts and interviews, crisis management, how to market a school. Three lecture hours and one session of three hours practicum per week.

COPA 327 Internet Advertising 2 Credits

This course provides both the theoretical and practical skills in the use of the internet for advertising purposes. Some of the topics to be covered include the importance of the internet in advertising, internet regulation, web design, web advertising, advantages of web advertising, disadvantages of web advertising, internet

directory advertising, internet customer service, ethics in internet advertising, legal restrictions and cautions, targeting techniques, online models, direct marketing, web measurements, pricing models, selling ads, market research, international advertising, legal issues, advertising for free, how to buy advertising space on someone web page, how to sell advertising space from your web site. Two lecture hour and one session of three hours practicum per week.

COPA 333 Contemporary Advertising 3 Credits

This course examines advertising as it is used in mass media. The course looks at the meaning of contemporary advertising, the dimensions of advertising, the social, ethical and regulatory aspects of advertising, the advertising business, the importance of marketing and consumer behavior to advertising, market segmentation and the marketing mix, marketing and advertising research, marketing and advertising planning, creative copywriting, creative art direction, creative production, media planning and selection, print media, electronic media, direct mail, outdoor advertising, transit and supplementary media, direct marketing and sales promotion, Creation of samples of contemporary advertising. Three lecture hours and one session of three hours practicum per week.

COPA 343 Advertising in Mass Media 3 Credits

This course examines advertising as it is used in mass media. The course looks at the meaning of advertising, seven basic media strategy, using television advertising, using radio advertising, using newspapers advertising, using magazines advertising, using outdoor advertising, using direct response and direct mail advertising, creating advertising, research in advertising, creating the copy, advertising ethics, print production, the television commercial, the radio commercial, the complete campaign. It examines how to produce advertising for print media, electronic media and public relations. Other topics include sponsorship in advertising, advertising agencies, the power of advertising, monitoring advertising, ethics in advertising, the use of computer technology in advertising, brochures, pamphlets, posters, banners, business cards, how to design a good advert, language used in advertising, the use of graphics in advertising decision making, the use of space, etc. Three lecture hours and one session of three hours practicum each week.

COPA 353 Advertising Management 3 Credits

This course is an examination of the field of advertising management which is made up of a system of interacting different elements. Some of the topic to be covered include the meaning of advertising management, advertising planning and decision making, the budget decision, setting advertising objectives, image and competitive position, attitude and market structure, creating and producing a copy, copy testing, developing the media plan, media research, the social and economic effects of the advertising, advertising regulation. Two lecture hours and one session of three hours practicum per week.

COPA 403 Public Relations and Social Media 3 Credits

This course introduces students to the use of social media in public relations. Some of the topics to be covered include the meaning of social media, the role of social media in public relations, the history of social media, different types of social media, public relations and the internet, the use of websites for public relations, blogs, social networking sites, twitter, Facebook, WhatsApp, the darker side of social media, the future of PR and social media, the social media strategy wheel, the eight social media skills for PRO. Three lecture hours and one session of three hours practicum per week.

COPA 413 International Public Relations 3 Credits

This course is designed to train PRO to deal with aspects of public relations that apply to different institutions and nations of the world. Some of the topics to be covered include , meaning of international public relations, international corporate public relations, the importance of foreign language in international public relations, cultural differences, representing foreign corporations, international government public relations, the rise of NGOs, foreign public relations organizations, theories of international relations, diplomacy and mediation, peace building, causes of conflict among states, the importance of foreign languages in international relations, language of diplomacy, etc. Students will make an educational field trip in at least one organization practicing international PR. Three lecture hours and one session of three hours practicum per week.

COPA 423 International Advertising and Promotion 3 Credits

This course expose students to the knowledge and skills for international advertising. Some of the topics to be covered include the meaning of international advertising, the role of international advertising and promotion, the international environment, the language factor in international advertising, global versus localized advertising, advantages of global advertising, problems with global advertising, global products local messages, decision areas in international advertising, advertising research, creative decisions, media selection, international advertising media, the role of other promotional mix elements. Three lecture hours and one session of three hours practicum per week.

COPM 200 Introduction to Print Media 3 Credits

This course is a foundation to print media and covers the entire spectrum of modern print media production. It is an overview of print media and some of the topics to be covered in this course include basic definitions used in print media, concepts and history of print media, development of books, invention and spread of printing press, characteristics and types of books, newspapers as the first medium for the mass society, different types of print media such as books, newspapers, magazines etc. ,organization of print media, newspaper and magazine writing, the impact of new technology on print media, Print media in Kenya, etc. Students will have a field trip to visit at least a printing press. Three lecture hours and one session of three hours practicum per week.

COPM 210 Language of the Press 3 Credits

This course examines language for special purpose as used in the press. The course focuses on the language of newspapers as a case study. Some of the topics to be covered include meaning of language of the press, the nature of newspaper language, the functions of newspaper language, features of newspaper language, and types of newspaper reports. The course also looks at the difference between written and spoken language, style and vocabulary used in the print media, formal and informal language, vocabulary building, the importance of grammar, the use of reference tools such as dictionaries, thesauri etc. Three lecture hours and one session of three-hour practicum per week.

COPM 220 Graphics Design and Desktop Publishing 3 Credits

This course involves a practical introduction to the use of graphics design and desktop publishing (DTP) systems in the print media. Some of the topics include the meaning of DTP, different graphics design software used in DTP, designing principles, practical use of DTP software and other supporting software for preparing text and graphics, with the emphasis on text and typography. Some

work in the area of electronic document publication such as web pages is also undertaken. Students are required to present a project by designing a document using DTP principles. The main software to be used for graphics design is in-design. The student will have a hands-on experience on using the software to design and create different documents. Three lecture hours and one session of three-hour practicum per week.

COPM 300 Editing Skills for Print Media 3 Credits

This course is designed to develop students editing skills in print media through theory and practice. The course covers topics such as the different stages of the writing process, meaning of editing, evolution of editing, definition of editor, functions of editor, rules of editing, editing of print media materials, basic editorial set up of a daily newspaper, the editing process, editing symbols, writing leads, language skills, writing headlines, newspaper editing, magazine editing, book editing, editing using a computer etc. The course has an editing project done either as a group or individual. The instructor will assign the project to the students and they will present it at the end of the semester. Three lecture hours and one session of three hours practicum per week.

COPM 310 Photography and Photojournalism 3 Credits

This course introduces photography and photojournalism. It presents the history and methods of photojournalism and examines the evolution and role of photography in print media. Some of the topics to be covered include the meaning of photojournalism, photographic camera, getting to know your camera, uses and kind of photography, history and development of photography, elements of photography, photographic equipment, photo editing, photography lighting techniques, twenty ways to improve your photos, essential qualities for photojournalism. Students will develop through practical work, the techniques of the photojournalist. Attention is also given to ethics and of image manipulation. Three lecture hours and one session of three hours practicum per week.

COPM 315 School Yearbook Production 3 Credits

This course is a practical approach that guides the students on how to prepare a school yearbook. The course deals with both the organization and content of the school yearbook. Topics to be covered include meaning of a school yearbook, planning for the yearbook, determining the format, choosing the theme, yearbook sections, writing captions for the yearbook photos, preparing the index, copy editing the yearbook, developing a style guide, proofreading, writing headlines, cropping photos, layout of the yearbook, designing the yearbook, graphics, producing the yearbook, the role of the editor-in-chief, choosing the printer, deciding on the yearbook cover, financing the yearbook, staff organization of the yearbook such as sponsor, editor-in-chief, layout editor, art editor, photo editor, copy editor, writers, photographers, copy readers, proofreaders. Students taking this course will prepare a school yearbook as a project that will be part of their final grade. Three lecture hours and one session of three-hour practicum per week. *Prerequisites: COPM 220, COPM 300 and COPM 310.*

COPM 320 Feature and Editorial Writing 3 Credits

This course has two parts: writing a feature story and editorial writing. In the first part, feature story is introduced. Topics discussed in this part include different styles of feature stories (e.g.: anecdotal features, suspended interest features, profiles, question and answer etc.), characteristics of feature writing, parts of a feature story, the rules, planning, the news feature,

feature ideas, the long story, organizing the story, The second part of the course deals with editorial writing. It covers what is editorial writing, how to prepare an editorial, structure of editorials, types of editorials, recent trends and challenges in editorial writing. Three lecture hours and one session of three hours practicum per week. *Prerequisite: COMM 240.*

COPM 330 Article Writing for Print Media 2 Credits

This course is designed to equip students with the skills of writing an article meant for publication in a newspaper, magazine or newsletter. Some of the topics to be discussed include stages involved in the writing process, the use of Why-questions in article writing, the importance of grammar and punctuation marks, the use of a computer in article writing. The course will also discuss how to write different types of articles such as how-to-do articles, the interview article, the personality profile article, the general expository article, writing a good story, writing headlines, captions, sub-heads, using the inverted pyramid, selecting and using stories, selecting the appropriate picture for the story, editing for tightness, accuracy and style etc. Two lecture hours and one session of three-hour practicum per week.

COPM 390 Advanced Photography and Photojournalism 2 Credits

This course is a continuation on photography and photojournalism. It examines more skills required by a photojournalist. Some of the topics to be covered include different types of photographic camera, digital cameras, photo editing, software used for photo editing, making a portfolio, uses and kind of photography, elements of photography, photographic equipment, photo editing, photography lighting techniques, photos, essential qualities for photojournalism. Students will develop through practical work, the techniques of the photojournalist. Attention is also given to ethics and of image manipulation. Two lecture hours and one session of three hours practicum per week.

COPM 400 Newspaper and Magazine Production 3 Credits

This course is a combination of theory and practice of newspaper and Magazine publishing. The course has two parts: Part one looks at newspaper production and management while part two looks at magazine production and management. This is a hands-on, practical course that will take students through the process of designing a newspaper or magazine from scratch up to its publication. Students will conceive, design and produce a prototype magazine and newspaper up to camera-ready stage. They will learn to generate story ideas, edit copy, gather and edit pictures, fact check, organize content, select typography, and design pages. They will produce a weekly newsletter to apply the theoretical skills taught in class. The course includes an educational field trip to a few media houses where students will be exposed to the process of newspaper and magazine production first hand. Three lecture hours and one session of three-hour practicum per week. *Prerequisites: COMM240, COPM300, and COPA 343.*

COPM 450 Book Writing and Publishing 3 Credits

This course covers the process of book writing and publishing. Some of the topics to be covered in this course include the role of books, the origins of books, early books and the elite, books and their audiences, scope and structure of the book industry, trends and convergence in book publishing, stages of book writing and publishing, different sections of a book, censorship, new technology and books, traditional books, electronic books, author/publisher relationship, legal matters, editing a book, book

binding, promotion and sales, essential aspects of book publishing etc. Students must undertake at least one educational trip to some publishing firms and printing press in order to get first-hand information on the publishing and printing process. Three lecture hours and one session of three-hour practicum per week.

COPM 460 Literature Evangelism for Print 3 Credits

This course covers the theory and practice of Literature evangelism as used in the SDA Church. Some of the topics to be covered in this course include the meaning of literature evangelism, the mission of Church literature, selection of colporteur evangelist, students and colporteur evangelism, points of selling, the colporteur evangelist and finance, books that give the message, health publications, magazine ministry, the first literature evangelists, the pioneers of Adventist work regarding publications, the psychology of selling, five basic motives for buying, spiritual preparation, intellectual and mental preparation, physical preparation, making a daily program, attitude of literature evangelism, four-point preparation of literature evangelism, different phases of sales, handling objections, territory of work, twelve rules of an ideal presentation, the value of time, filling a weekly report, the importance of speech communication in literature evangelism. The student will have a practicum of one-month literature evangelism preferably during the month of August. Three lecture hours and one session of three-hour practicum per week.

CPSY 119 Principles of Self Esteem 2 Credits

The course provides an understanding of self-esteem as a fundamental ingredient in spiritual, emotional and social health issues. Principles discussed include Development of self-esteem, Basics of human worth, Basics of unconditional love, and Basics of growing, accepting that you aren't perfect, taking stock of your character, and preparing for setbacks.

CPSY 122 Foundations of Counseling 3 Credits

The course is a survey of the counseling profession and provides knowledge, skills and attitudes for beginning counseling students. The functional dynamics of process model, principles of counseling process, counseling skills, worldviews and how they develop, Biblical and Psychological views of man, and building involvement are among the topics that are covered. A Christian philosophical base for counseling is established.

CPSY 126 HIV/AIDS Counseling 2 Credits

The course equips learners with skills that enable them to provide counseling, support and care for people living with HIV/AIDS. The origin of HIV, The immune system, AIDS infection, HIV transmission, HIV Testing/ Prevention and Psychological/Socio-economic aspects of HIV/AIDS are discussed.

CPSY 150 Techniques of Counseling 3 Credits

The course introduces learners to the techniques used in counseling practice. These include Attending Behavior, Client Observation, Questioning, Encouraging, Paraphrasing, Summarizing Reflection of feelings/meaning, Focusing, influencing and Confrontation. Some lecture sessions are devoted to role plays. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 175 Career Choice 2 Credits

The course deals with helping individuals make decisions related to building a career as well as the process of career development to building a career as well as the process of career development. Topics covered in this course include educational guidance, vocational guidance, personal and social guidance. Theories of occupational choice and instruments evaluating personality and occupational interests are also discussed.

CPSY 255 Counseling the Aging 2 Credits

The course deals with the analysis of typical psychological, physical and social problems in the lives for the aged, as well as the role played by counseling. Myths associated with old age, Loss, Loneliness, Health, Depression, Drug abuse, Social engagement, Dementia, Confusion, and Preparation for death are addressed. *Prerequisites: PSYC 110, PSYC 111 AND CPSY 122.*

CPSY 262 Abnormal Psychology 2 Credits

The course is a study of the types, nature and development of mental disorders, their effects on affected individuals/families/communities, and methods of treatment. Early onset/Substance abuse/ Anxiety/ Mood/Sexual/Personality/Somatoform/Late onset disorders and schizophrenia are discussed. A field trip to facility dealing with mentally sick individuals is helpful. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 270 Ethics in Counseling 2 Credits

The course addresses philosophical foundations of ethics in the counseling profession. These include Professional competence, Training, Supervision, \informed consent, Clients' rights, Confidentiality, Duty to warn and protect, Malpractice issues and Ethical concerns in multi-cultural counseling. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 275 Christianity and Counseling 3 Credits

In this course, Biblical as well as Theological themes in counseling are examined and illustrated by theories and approaches of well-known theologians including Jay Adams, Howard Erych, Wayne Mack, David Powlison and Edward Welch. The church and counseling, the counselor, personal issues, developmental issues, interpersonal issues, identity issues, family issues and spiritual issues are also discussed. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 280 Academic Counseling 2 Credits

The course enables learners to identify and develop appropriate attitudes and study skills required for academic excellence. Topics covered in this course include significance of guidance and counseling in learning institutions, attributes of the school counselor, problem of the substance abuse, relationships, study skills, academic performance, general discipline, self-esteem, poverty, and other challenges facing students in schools and colleges are examined and appropriate intervention strategies are sought.

CPSY 295 Pre-Marital Counseling 3 Credits

The course discusses the importance of pre-marital counseling for marital preparation and the role of the church and its ministers. What marriage is, biblical view of marriage, sex and sexual compatibility, communication, family spirituality, role of family members, extended family, parenting, family finances and divorce are some of the areas that are covered. An overview of different evaluation instruments emphasizing a Biblical model is carried out.

CPSY 317 Psychology of the Exceptional Child 2 Credits

The course focuses on characteristics of exceptional children and the problems faced by the concerned children, parents and school system. Methods of assisting such children in emotional, social, physical, and educational development are discussed. *Prerequisites: PSYC 110, PSYC 111 and CPSY 238.*

CPSY 331 Counseling Services Management 2 Credits

The course deals with basics of developing, organizing, administering and maintaining a Counseling program in different settings such as schools, churches, hospitals, rehabilitation centers and prisons. Consideration of practical problems and existing national guidance are presented. A visit to an organization having such a program is helpful. *Prerequisites: PSYC 110, PSYC 111, CPSY 122 and CPSY 150.*

CPSY 333 Chemical Dependency in Diverse Populations 2 Credits

The course is a continuation of CPSY 414 and discusses chemical dependency (drug abuse) among specific population. Emphasis is given to etiology, treatment and prevention of behavior, and populations addressed include the Disabled, the Elderly, Adolescents, Athletes, the Military, and dual-diagnosis patients. *Prerequisites: PSYC 110, PSYC 111 CPSY 122 and CPSY 393.*

CPSY 374 Crisis Counseling 3 Credits

The course explores basic issues in crisis counseling and includes development of skills for a short-term therapeutic approach. Specific case studies and examples will help students to develop a Biblical model of crisis counseling: The history and techniques of crisis counseling; Understanding the role of a crisis counselor; Dealing with pregnancy, birth and child bearing; Dealing with the crisis in pre-puberty and adolescence, young adult age, middle age and old age crises are some of those that are addressed.

CPSY 385 Child and Adolescent Counseling 3 Credits

The course addresses typical problems faced by children and adolescents and examines specific counseling theories and methods used in helping them, Play, Narratives Story-telling, Art, Group Counseling, Family therapy, and Solution-focused approaches are emphasized. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 386 Group Counseling 2 Credits

The course is a study of the dynamics experiences in groups. Group stages, How they are led, Purposes of groups, Skills for group leaders, Dyads, Rounds, Cutting off, Drawing out, and Exercises are addressed. Learners are organized into groups which occasionally meet for group experiences. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 387 Marriage and Family Counseling 3 Credits

The course deals with what marriage is, biblical and social view of the family, the different phases in the family, cycle after honeymoon, the parenting years and the challenges encountered, the middle age years and their challenges, causes of marital conflict, communication, quality time, conflict resolution, extramarital affairs, myths about affairs, guidelines for counseling couples involved in an affair, and how expectations and needs disrupt marriages are some of the topics that are to be covered in this course. While emphasizing a Biblical model overviews of marriage enrichment and informational resources for practical applications are presented.

CPSY 391 Theories of Personality 2 Credits

The course discusses and assesses current theories of personality development in the context of Biblical concept. Definitions of personality, type and trait theories, psychoanalytic theory, social learning theory, self-growth theory, humanistic

theories, personality determinants and personality disorders are some of the areas that are covered. Current personality assessment instruments as well as other methods of assessment are evaluated for their suitability for use in African settings. *Prerequisites: PSYC 110, PSYC 111 CPSY 122.*

CPSY 393 Concepts of Chemical Dependency 3 Credits

The course is an introduction to the wide subject of chemical dependency (drug abuse). Drug Social use, Abuse, Tolerance, Addiction, Withdrawal symptoms, and Modes of administration are discussed. The main classes of drug abuse substances (CNS depressants, CNS stimulants, Hallucinogens and Narcotic Analgesics) are also reviewed. *Prerequisites: PSYC 110, PSYC 111 and CPSY 122.*

CPSY 396 Depression and Stress Management 2 Credits

The course explores the different kinds of depressors (agents that cause depression), Stressors (agents that cause stress), their effects and methods of prevention/management. Biblical perspectives of depression; Psychiatrists, pastors and counselors working together; Symptoms of depression; Counseling for depression, General adaptation syndrome, and coping are some of the areas addressed.

CPSY 397 Current Theories in Counseling and Psychotherapy 3 Credits

The course makes an overview of current theories in counseling and psychotherapy. These include Rational Emotive behavior Theory, Reality Theory, Person-centered Theory, Jungian Analytical Theory, Adlerian Theory, Existentialism, Behaviorism, Gestalt Theory, Psychoanalytic theory, Transactional Analysis theory, Behaviorist Theory, and Rogerian. Attention is given to historical development, counseling/therapy models, the therapeutic relationship, the function and role of the counselor and the skills within the various theories. *Prerequisites: PSYC 110, PSYC 111 CPSY 122 and CPSY 150.*

CPSY 398 Organizational Psychology 2 Credits

The course is concerned with analyzing system dynamics that maximize performance and excellence in an organization. The individual's work, the human factor of business, understanding of external and internal customer relations in light of changes that constantly occur in organizational structures, leadership styles and structure and organizational theories/techniques are some of the topics that are discussed.

CPSY 465 Topics in Counseling 2 Credits

The course explores areas in Counseling Psychology that have not been covered in any of the courses in the programs such as communication, the role of suffering, conflict management and other current counseling issues. *Prerequisites: PSYC 110, PSYC 111 CPSY 122 and CPSY 150.*

CPSY 480 Counseling Research Methods 3 Credits

The course basically addresses the issue of moving beyond common sense in seeking answers to puzzling questions about human behavior. It therefore discusses the different techniques used for conducting systematic research including Naturalistic observation, Case study designs, Self-report measures and surveys, Correlation designs, and Experimental designs. *Prerequisites: PSYC 110, PSYC 111, ENGL 105, CPSY 122 and CPSY 150.*

CPSY 479 Psychological Testing and Assessment 2 Credits

The course reviews the history of testing and discusses the objective instruments that are used to assess intellectual psychologies and personality functioning (psychometrics testing). Selection, administration and scoring of standardized tests for the purpose of assessment are discussed. Among the instruments (psychological tests) discussed are those of Intelligence, Aptitude, Education, and Personality. *Prerequisites: PSYC 110, PSYC 111 CPSY 122 and CPSY 150.*

CPSY 484 Cross Cultural Counseling 2 Credits

The course focuses on counseling with/among individuals of different cultures. The course therefore provides awareness, cultural sensitivity and a global perspective to the discipline of counseling and emphasizes the role of the counselor in such counseling settings. Topics include Politics of counseling, Barriers of cross-cultural counseling, Cultural identity development, Mistrust in cross cultural counseling and Cross-cultural communication/Family counseling. *Prerequisites: PSYC 110, PSYC 111 CPSY 122 and CPSY 150.*

CPSY 489 Counseling Practicum 2 Credits

This course provides B.A and Associate degree Counseling Psychology learners with supervised counseling experiences in preparation for professional counseling practice. *Prerequisites: Completion of 40 credits of counseling courses which should include CPSY 150, CPSY 270, and CPSY 386 and CPSY 397.*

DEST 100 History, Theories and Concepts of Development 3 Credits

This is an introductory course in development studies which provides a vigorous interdisciplinary, theoretical applied and an integrated view of development by focusing on historical processes of social, economic and political transformation that has shaped Development in the contemporary world. Concepts, theories and Models of development; Third World and theories of development; poverty-types, causes and alleviation measures; Agrarian question and food security; and challenges of development in third world countries will be covered.

DEST 101 Politics in and of Development 3 Credits

Topics to be covered include: definition of politics and identification of political systems of the world; the general theories of political economy: Marxism, dependency, and liberal etc. The role of politics in the development policy formulation and implementation. Examination of the role of governance on levels and quality of development: how Political factors explain local, regional and global socio-economic development disparities. International politics and institutions and regional development. The politics of globalization. Classical examples of successful national development stories and the underpinning political secrets. The Kenyan (and African) experience. Emphasis on participatory politics as the benchmark for desired development.

DEST 121 Culture and Development 3 Credits

The gist of the course is comparative examination of the various people's ethnic backgrounds in relation to actual and propensity to develop: also dealt with is background history, the belief and value system, literacy status, social administrative structure, economy, interaction with the surrounding communities and worldviews. Environmental awareness, cultural and social demands on human growth and development: resourcefulness and creativity are also examined.

DEST 130 Emerging Development Issues in Least Developed Countries 2 Credits

The Purpose of this course is to provide a broad overview about the least developed countries (LDCs), with a special focus on development problems in countries south-south. The course also covers the natural conditions, resources and their influence on development; environmental situation; economic situation; HIV/AIDS and other diseases; gender; human rights; development assistance; analysis and evaluation of different development projects that have been done in the region. Other topics covered also include; Poverty, hunger and malnutrition; health and well-being; human rights, inequality, conflict, peace, justice and gender equity; climate change, water and sanitation; affordable clean energy; decent work, partnership, industries and economic growth; education, innovation and infrastructure; sustainable cities and communities, and responsible consumption and production.

This course Exposes learners to the issues of pollution, human rights, conflict and peace; It also covers the issues of partnership and innovation for rapid and sustained development and a broad overview about other challenges posed to development. Violence, population trends, nutrition problems, health status of inhabitants, poverty. Definitions of environmental crises: endangered biodiversity, maintenance of forests, soil and water, spread of deserts, pollution of atmosphere and disturbance of climate. Other issues: energy, resources, waste, human residence.

DEST 170 Communication in Development 3 Credits

In this course, issues of Communication theories, strategies and networks will be basic; development information and evaluation of its impact in the community; the community and communication for development.

DEST 215 Human Rights 3 Credits

The course will deal with: The concept; Definitions; the history and assumptions of human rights, their operation and implementation. Human rights rules and laws. Courts, the police and mob justice in the context of human rights; 'truth', 'justice', and 'morality' and human rights. Minority rights, new social movements, women's rights, truth commissions, and amnesties. Development and human rights in perspective circumstances at the work and living environments and the corridors of justice; access to basic necessities. Focus on LDCs.

DEST 240 Community Leadership and Development 3 Credits

Topics covered under this course include: identity, perspectives, structure and history of a community, issues, concepts, processes, key players, lessons learnt, best practices, problems and techniques of community development; community organization, mobilization and its empowerment through participatory development approaches and accountability; factors of community change and change agents: the role of the community, the government and agencies like CBOs in community development. Relevance of community development to LDCs; development policies and strategies; the art of feasibility studies and prioritization. Leadership; the theories, principles and styles of leadership.

DEST 250 Gender Issues in Development 3 Credits

The cores in this course are gender issues: identity, causes and effects, relations and ideology. Also, to be tackled will be: Theoretical debates on and different conceptual approaches

to gender: Women in Development, Women and Development, Gender and Development. Human rights and gender: a general view; violation of rights, how and why; Migration measures: education, socio-cultural, legal and administrative. Gender and Health; Women status and empowerment: meaning; necessity; what it involves; Easing socio-cultural constraints and practices on women (women burdens); household dynamics and gender relations. Gender roles and gender relations with regards to: agriculture; environment; industrialization; development policies, state and institutions; education; health; property inheritance, succession, marriage, employment opportunities vs. gender and development. The politics of being a woman, poverty and gender including class and ethnicity are other topics besides gender planning, gender consciousness and gender advocacy - struggle for change.

DEST 260 Co-Operative and Other Social Movements in Development 3 Credits

The concept of a co-operative. The history, goals and structure of co-operatives. The legal aspects. The co-operative movement. Types/forms of co-operatives. The process of setting up a co-operative as a legal entity. Role of co-operatives in community development: how the development process is enhanced and/or blocked and threatened. Challenges in co-operatives and the para co-operatives and the way forward. Definition, theories on, types, development and lifecycle of Social Movements. Field trip is undertaken as determined by instructor.

DEST 265 Environmental Impact Assessment 3 Credits

The course Environment Impact Assessment the natural environment and humankind and Development; specific topics include: Definitions; the need for; history; principles of environmental impact assessment; timing; process; tools; participants; EIA reporting format; EIA vis-à-vis environmental impact statement (EIS); environmental advocacy sustainable living.

DEST 280 NGOs: Management and Leadership 3 Credits

The course is geared to the study of the basic principles of management and the functions of a manager in planning, organizing, staffing, directing, controlling, communicating, problem identifying, and decision-making models. It also includes the study of and styles of leadership; different motivation techniques; evaluation of leadership and management organs and functions. Emphasis on NGOs, their history, the key conceptual concerns; the skills and tools for their Management. NGOs within the legal framework; NGOs and other actors in global and local socio-economic development contexts. The dynamics of the NGO sector in a broader development and global social change context: the position of NGOs in the development process. Field trip as determined by instructor.

DEST 307 Research Methods for Development 3 Credits

This course introduces the learners to the identification of and solutions to development problems through research. Covered in this course are topics on: How to identify a researchable problem; topic selection; objectives formulation; hypotheses; as well as theoretical and conceptual frameworks; review and citation of literature; research methodologies, designs, tools; methods of gathering, analyzing and interpreting data; discussing findings; presenting results, making conclusions and recommendation. *Prerequisite: ENGL 105.*

DEST 350 Conflict Management and Resolution 3 Credits

Topics include: Environment as a resource base; demand for vs. supply of resources; Concept of conflict; causes of and players in conflict; vulnerable groups; conflict resolution and factors to consider; key players in resolution; role of international community

DEST 363 Urbanization and Development 3 Credits

The course will examine the urban center and region; Reasons for urbanization; the Urban physical and social structure and explanation theories; Urban analysis; urban population sources and dynamics; Urban ecology and its implications; Sustainable urban growth and management; other topics include the green cities; Over-urbanization; urban transformation; urban decay and urban centers as hubs of regional development.

DEST 370 Project Planning, Implementation, Monitoring and Evaluation 4 Credits

Topics covered include the concept of projects, the project cycle, problems and needs analysis, project identification, formulation and implementation; other topics are: parameters and techniques used in assessing project costs and benefits. Project monitoring and evaluation methodologies. Difference between monitoring and evaluation; M and E Frameworks; M and E plans and components; Define an indicator as used in M and E and the characteristics of a good indicator and, factors affecting M and E of projects.

DEST 373 Disaster Preparedness, Mitigation and Management 3 Credits

The course covers: definitions, types and causes of disaster; disaster in history; the disaster management cycle; disaster mapping; the Sphere Standards; role of local community, government, nongovernmental and multilateral organizations like the United Nations, and other actors in disaster management.

DEST 375 Rural Development 3 Credits

The course explores the concept of ruralism: characteristics of a rural setting. Resources for rural advancement. Cultural aspects of rural wealth and poverty; the land tenure system; theories, approaches and programs of rural development; community sensitization and mobilization for development; the central and local governments in rural development and Catalysts of rural development.

DEST 380 Studies in Community Health 3 Credits

This course covers: The state of the world's health; The health status of Kenya; Community health indicators overview; Mutualism between health and human activity; Progress towards "Health For All in the 21st Century: ameliorative measures-formal and informal; Past, current and future plagues, including the global AIDS epidemic; Infectious and Chronic disease: prevention and control-community provision; Community Nutrition and empowerment; Health Survey methodology; Transcultural health practices; Change agent strategies. Organizations involved in international health work.

DEST 386 The Mass Media in Development 3 Credits

The course shall overview the art of communication and the Communication Media; Mass media; the role of mass media in the socio-economic Development process; Ethics and the mass media. Theories of mass media; agenda setting and the media;

Media and the law; Mass media and Politics; Liberalization and the media; Challenges of the mass media.

DEST 390 Principles of Population and Demography 3 Credits

Topics covered in this course are: Demography as a field of study; Demography Components: Fertility, Mortality, Migration and Marriage; factors affecting population change, including fertility and mortality, changing sex ratios, the growth of megacities and international migration. Population Trends in time with special focus on Africa; area fertility levels and trends; Maximum fertility rate, Age limits, Post-partum fertility, Voluntary fertility; Fertility factors: psychology, customs and other practices, socioeconomics. Families and households; Population and natural resources - the relationships between population issues, and economic, social and environmental aspects of development. The implications of population growth for food supplies and the environment at local and global scales. Demographic consideration in planning; Population policies. Population theories; Population and savings; investments, employment and productivity. An overview should be given of: population theories in relation to natural resources, environment and development; population and food. Demographic consideration in planning; Population policies. Population theories; Population and savings; investments, employment and productivity.

DEST 392 Development Perspectives of Globalization 3 Credits

In this course shall be tackled: The concept, definition and history of globalization. The theories and the supplied rationale of globalization. Pertinent globalization processes with emphasis on their implication for local regional and global development: 'Globalization footprints'. Development inequity and inequality in a globalizing world: the winners and losers under globalization. The politics for and against globalization. The prospects of globalization in the contemporary or other form, as vehicle for global universal development.

DEST 396 Aid and Development 3 Credits

This course examines the concept of development aid, its history, nature and various forms. It also examines the factors that influence giving or obtaining. A consideration of the rationale and effectiveness of aid in the modern world shall be done based on experiences from selected developed and developing countries; Globalization and development aid; the ethics of aid.

DEST 403 Human Resource Development and Management 3 Credits

Topics covered are summarized thus: Role of Human Resource Management and development in development process. Human Resource Development: Leadership and management challenges; motivation, performance and development. Theoretical frameworks of effective leadership. Managing People: differences, attitudes and behavior; Developing competencies. Stress management at work; appraisal, motivation discipline, conflict resolution; job design for effective performance: appropriate workforce; promoting organizational excellence for effective performance. Managing Activities: The role and tasks of managers: delegation, motivating, planning. Communication in organizations; Working environment: organizational functions, cultures, structures and differing organizational design principles. Improving the working environment; Managing in a competitive, globalizing environment. Managing information: in the decision and communication processes of organizations. Human Resourcing in Organizations: Identification of the need

for; motivation and development people within the organization; employee withdrawal and redundancy. Managing Training Functions: Managing Development: Development mindsets, perspectives, skills/competencies.

DEST 405 Development in the Legal Framework 3 Credits

The course covers: The nature of law; general principles of law; law as applied to the various aspects of development to the implementers and beneficiaries. Conflicts in application of law in resource planning, exploitation and management. Resolution of the conflicts. The exploitation and conservation of a country's resources: riparian and common heritage resources; the concept of equity. Kenyan and international law in context.

DEST 410 Proposal and Grant Writing 3 Credits

Summary of the topics covered: Grant writing: the practice and rationale of Grant writing. Grant planning and writing as a phase in the whole program planning, development, implementation, and evaluation cycle. Guideposts in the process of grant proposal writing: Prepare: define project; identify the right funding sources; contact the funders; acquire proposal guidelines; know the submission deadline; determine personnel needs; update your timeline. Proposal writing: Narratives: Statement of need, approach, Method of evaluation, Project timeline, Credentials, Budget and factors funders use to assess budgets; Supporting materials; Authorized Signatures; Specifications; Submission checklist. Follow-up. Time-honored fundamentals elements of a grant write-up: Cover Letter; Proposal Summary; Introduction to the Organization; Statement of Problem or Need; Project Goals and Objectives; Methods and Schedule; Evaluation Criteria and Process and Budget. Conditions for successful grant writing: planning, searching for data and resources, writing and packaging a proposal, submitting a proposal and follow-up. Development partners vs Development donors.

DEST 427 Regional Development Planning 2 Credits

The course entails planning ideas that have been used to plan cities and regions. (Historical overview), concepts, principles, the process and techniques of environmental and resource planning; an overview of models of the planning process a review of techniques for regional planning analysis: economic impact assessment, benefit-cost, multiple accounts evaluation, land suitability analysis, implementation methods, and dispute resolution methods. Regional planning instruments: growth policies, capital works, transportation, etc. Application of planning to urban and regional problems with regard to issues like land use, housing, human services and environment. Also covered is: The legislative framework for planning. Ethical implications of planning; Leadership principles to planning; Participants in the planning process; Sustainable Development.

DEST 435 Entrepreneurship Skills and Financial Accountability 2 Credits

The course examines the role of entrepreneurship and Small and Medium Enterprises (SMEs) in development; and enable students to gain an in-depth understanding of entrepreneurship and business environment, analyzing multi-dimensional entrepreneurship approaches and the environment dynamics, understanding of financial statement and literacy, capability of understanding the nature of business transactions, identification of relevant economic events for reporting and determination of appropriate financial measures for those events. It also includes analysis of the effects of those events in the organizations' performance and financial conditions. Course content also

covers: Introduction to entrepreneurship; theory and philosophy of entrepreneurship; pathways to entrepreneurial ventures, legal issues, access to finance; assessing entrepreneurial opportunities, marketing challenges for entrepreneurs; the environment, economy and entrepreneurship and Eco-preneurs; ethics, social responsibility, social entrepreneurship; global opportunities/international entrepreneurship; SME development, role of SMEs in development; policy issues affecting SMEs and case studies of SMEs and, Writing of the Business Plan.

DEST 450 Ethics in Development 3 Credits

The course relates the objectives, means and outcome of development process to the environmental status with a view to minimizing any undesirable imbalance thereby ensuring sustainability of both development and environment. Other topics include: definition, the concept and the sources of ethics; ethical perspectives of the development paradigms; culture and value systems; development ethics vis-à-vis environmental ethics; ethical dimensions of specific development strategies; equal and equitable sharing of resources: marginalization and discrimination.

DEST 457 Studies on Displaced Persons 3 Credits

This course introduces the student to concepts, issues and problems of people forced to emigrate commonly called refugees. It also handles: types of refugees; the refugee problem in retrospect; Bases of displacement; the geographical extent of the refugee problem; the scale of the global refugee crisis; the complexity and implications of the problem; International response and capacity to cope with the problem. Examination of the Policy and other responses to the refugee problem will be done.

DEST 470 Sustainable Development 3 Credits

The course shall cover: the history and concepts of Sustainability and Sustainable Development; Fundamentals of Sustainability; Development overview; Sustainable Development and its anatomy. Population Growth and Sustainability; Use and Sustainability of natural resources: bio-resources, Water, pedolithospheric, Energy and other resources. The linkages among economic, social, technological, and environmental issues in achieving a sustainable, global society through the multi-disciplinary use of sound scientific, engineering, ethical, political and economic knowledge and interventions. Effect of lack of knowledge on connectedness of activities and natural phenomena on earth: implications of unsustainable utilization of resources: global warming, deforestation, loss of soil fertility, pollution, chemical contamination, loss of biodiversity, overpopulation, the hole in the ozone layer, economic failures, social programs that do not work; Local, regional, global dimensions of sustainability; deep/green ecology.

DEST 485 Research in Development Studies II 3 Credits

This is an instructor-directed individual research study of a researchable topic in the realm of development, chosen by a student who has demonstrated ability, desire and responsibility necessary to successfully complete such study. The topic should be chosen in consultation and the approval of the instructor and/or Chair of the Department. The course ordinarily spans one semester but may if need be, spill over to another semester - indicative of the amount of input and quality of work expected of a student. The course prepares the student for post-graduate research studies. It presupposes the student's exposure to and therefore demands practical application of theoretical knowledge of research techniques and methods. *Prerequisite: DEST 307.*

DEST 490 Field attachment**3 Credits**

This course requires that a student be attached to a Development Studies concern where he/she shall be exposed to real life experiences of what has been covered theoretically in class. It is also meant to bring into contact the student and prospective employers after college work. The attachment ordinarily lasts one semester i.e. at least 600 clock hours. A written report should be written by the student outlining the nature of work involved in, its significance to development, lessons learnt, challenges encountered and how dealt with, conclusions and recommendations. An assessment report on a university prescribed form shall also be submitted by the immediate supervisor at the attachment point. The students will make arrangement for the course instructor to assess him/ her while on attachment. After completing, a presentation is required of the students in a panel of his/her fellow students and friends, lecturers and chairperson as well as other examiners. The course is open for seniors.

ENGL 105 Writing Skills**3 Credits**

This course is designed to prepare all students, across faculties, for successful academic writing. The course examines specific strategies of composition as they pertain to expository and argumentative writing. A considerable amount of time will also be devoted to vocabulary growth, spelling, and mechanics. The course will also focus on writing a research paper – the steps involved in writing a research paper, library skills, finding, evaluating and organizing material, documentation, editing and proofreading.

ENGL 106 Speech Communication**1 Credit**

This course studies the human communication process, focusing on individual verbal interaction with other persons, in small groups and in public communication situations. The course provides students with practice in speech preparation and presentation, both as individuals and as a team. Some of the topics to be covered include planning and preparing speeches, types of speeches, group presentation, and job interview techniques. Students also have an opportunity to perform oral and written critical evaluations of fellow students' speeches.

ENGL 114 Introduction to the Description of English**3 Credits**

This course is designed to introduce the learner to basic terminologies in the description of the English language. One is led to an understanding of the grouping of English words and their formation. Word clusters are also studied as well as their functions and patterns. The student is introduced too, to the sounds of the English language and their production. Principal elements of sentence structure e.g. subject complement and functionally corresponding phrases and clauses. Types of clauses: their syntactic and semantic features. Combining and condensing sentences: simple, compound and complex sentences. Substitution and Ellipsis.

ENGL 117 Advanced Description of English**3 Credits**

This course offers a detailed description of the English language in as far as the structure and components of the language are concerned. Aspects covered include history of the language, sounds of English as well as its structure. These involve an overview study in phonetics, phonology morphology, morphology, semantics and pragmatics.

ENGL 130 Introduction to the Study of Language**3 Credits**

This course examines the structure of language, theories on the origin of human language; language families and classification; language as a system of communication; spoken versus written language. The definition of Linguistics and various levels of Linguistic description e.g. phonetics, phonology and Morphology, Syntax, Semantics, Pragmatics and Discourse. Scope of linguistics in relation to other disciplines e.g. Sociology, Psychology, History, Geography and Mathematics and other related disciplines. It also covers sociolinguistics terms such as dialect and idiolect, accents, bilingualism and multilingualism.

ENGL 148 English Grammar and Usage I**3 Credits**

This course takes a semantic approach to the study of grammar. It deals with semantic types associated with grammatical classes such as noun, Adjective and Verb. Vocabulary under each semantic type is explored, and common meaning components in each are studied. Also covered are the following: Finite and non-finite forms of the verb; use of verb to express tense, aspect, voice and mood; traditional versus modern grammar view of tenses; transitive and intransitive verbs; the noun phrase; determiners and modifiers; prepositional and conjunction use of some functional words; adverbial and adjectival usage; concord case and role analysis.

ENGL 216 Origins and Development of English**3 Credits**

This course entails a historical survey of the English language; Old, Middle and Modern English; the spread of English as a native language, e.g. American, British, Australian, Canadian, South African. The course also covers characteristics of major varieties, and standard and non-standard English. The course also tackles the spread of English as a second language especially in former British colonies in Africa; status and function of English in relation to indigenous languages; evolution of local varieties (e.g. West African, East African, Indian) and their linguistic features; English as a world pidgin and creole.

ENGL 217 Phonetics and Phonology**3 Credits**

The course gives a broad definition of Phonetics and Phonology and the differences between the two disciplines: Then it focuses on articulatory phonetics and the technical terms required for the description and classification of speech sounds, speech production mechanisms and speech sound symbols. It also deals with the manner in which vowels and consonants are produced and the parameters used in their description. The main thrust of the course is on the application of phonetic science to the teaching of proper pronunciation. Practical exercises in phonetic transcription and articulation will be emphasized. Phonology: phone, phoneme and allophone; Phonological conditioning; complementary distribution and free variation. Phonological processes: elision, assimilation, liaison and hiatus; the syllable in English.

ENGL 218 Morphology and Syntax**3 Credits**

The course covers the structure of the word, classes of words, and word sets; the morpheme, morph, allomorph; morphophonemic alternations; types of morphemes; meaning and sequences of morphemes; inflection and derivation; compounds; acronyms, blends and back-formations. This course also covers approaches to syntactic analysis: Immediate Constituent Analysis (ICA), Phrase Structure Grammar (PSG), and Transformational Generative Grammar (TGG) with emphasis on Standard theory. It

examines transformational operations and rules. The course also introduces Government and Binding theory with its subsystems.

ENGL 219 English Grammar and Usage II 3 Credits

This course involves a review of word classes; the study of English inflections for plural formation, tense, possessive and comparatives; use of English modal verbs; participle phrases and the infinitives, formation of the passives, question tags and questions; direct speech and reported speech- formation and rules; use of intensifiers with adjectives, intensifiers and comparatives, participle phrases as modifiers and relative pronouns with modifiers.

ENGL 222 Theory, Practice of Translation and Interpretation 3 Credits

The course explores theory, aims, concepts and methods in text interpretation. Informational texts: instructions, reports, and official documents. Oral texts; literary texts of all genres. Organizational features influencing design and interpretation of oral and written texts in practical usage context. Cohesion, coherence, comprehension. Develop student awareness of factors that contribute to information organization and interpretation. Models for translation practice and analysis. Translation and the human mind; translation and theories of language function and communication.

ENGL 244 Discourse Analysis 3 Credits

This course examines the general functions of language: transactional and interactional, the use of spoken and written texts, the role of contextual features in language use, the Speech Act Theory, the Cooperative Principle and its application, conversation and conversational structure, the notions: text, texture, and cohesion.

ENGL 302 Language Policy and Issues 3 Credits

The course covers concepts of language policy and planning, process of language planning, History of language planning in Kenya; the role of English, Kiswahili and mother tongues in the curriculum; development of sheng and its implications on language teaching; emerging issues on use, and teaching of various languages in Kenya.

ENGL 303 Research Methods in Linguistics 3 Credits

This course enables the student to discover the phonology, morphology and syntax, etc. of a language through techniques of elicitation, data collection, data analysis and presentation. The student produces a research proposal or a term paper dealing with a linguistic aspect(s) of a given language(s). *Prerequisite: ENGL 118.*

ENGL 305 English Structure and Semantics 3 Credits

This course examines ambiguity and vagueness. It covers semantic theories, surface and deep structure, and the relation between syntax and semantics. Moreover, it explores connotation and denotation; semantic fields and idioms; and relationships among words (synonymy, antonymy, homonymy, polysemy and ambiguity).

ENGL 342 Sociolinguistics 3 Credits

The course gives a general definition of sociolinguistics. It explores the relationship between language and society and examines social aspects of language such as idiolects, dialects, standard and non-standard dialects, pidgins and creoles, diglossia, official and national languages, code-switching and code-mixing, bilingualism and multilingualism, language shift,

attrition and death, language and culture, language planning and language policies.

ENGL 346 English for Specific Purposes 3 Credits

This course examines language for special purposes. The course is subdivided into three parts. Part one introduces ESP by looking at the meaning of ESP, the origins of ESP, the stages of the development of ESP, characteristics of ESP, types of ESP etc. Part two deals with some specific areas of ESP such as language of science and technology, language of advertising, language of newspapers, language of the law, language of the church, language of politics, language of broadcasting etc. Part three of the course examines ESP course design, syllabus design, the role of the ESP teacher, language and pedagogy etc.

ENGL 347 Second Language Acquisition 3 Credits

The course explores factors in first language acquisition and their application to the teaching and learning of English in formal and non-formal situations. It covers theories in language learning; the behaviorist view; the cognitive view; errors in language learning; findings in SLA research and how these have influenced language learning and teaching; syllabus design and choice of materials; SLA in Kenya.

ENGL 358 Business English 3 Credits

This course focuses on preparing various business documents, building business vocabulary, essential grammar skills, and good interpersonal skills. It covers such topics as the meaning of business English, writing business letters, reports, project proposals, newsletters, business cards, brochures, flyers, business forms, calendars, catalogs, invitation cards, letter heads, programs, advertisements, news releases, memos, fax messages, style in business writing, and principles of writing effective messages.

ENGL 420 Applied Linguistics 3 Credits

The primary concern of this course is the application of linguistic theories, methods and findings to the elucidation of language problems. The focus of the course will be on the teaching and learning of foreign or second languages. It will also examine the linguistic analysis of language disorders (clinical linguistics), the use of mother tongue, Education (educational linguistics), lexicography, translation and interpretation, English language testing, production of English language teaching materials etc.

ENGL 435 Editing Skills 3 Credits

This is a practical course focusing on editing and proofreading of various documents. Some of the topics to be covered include general principles of editing, editing process, editing strategies (e.g. reading backwards, using a word processor), editing symbols, editing and the law, book editing, magazine editing, newspaper editing, computer assisted editing, the importance of grammar in editing, editing for standard English usage, reference tools of an editor, editing for style, editing for punctuation and mechanics, editing for sentence structure, use of spell checker and other editing programs, use of grammar checker. Students will have an editing project as assigned by the instructor.

ENGL 442 Language and Gender 3 Credits

The course explores the history of language and gender in the west including the Deficit, Dominance and difference models of language use. The communication styles used by women and men in the performance of femininities and masculinities in a range of situational and cultural contexts will be examined. Language, power and dominance in relation to gender in the classroom will be explored. In addition, the course will consider

issues concerning language structure and ideology, including sexism in language and the relative success of gender-based language reform efforts.

ENGL 443 Writing for the Media 3 Credits

The course examines the stylistics of journalistic writing; language use, creativity, and discourse in the press. The literaryness of the essay form. The conception, nature and marketing of feature articles; ideological representations in the news, editorials and commentaries; media bias and dynamics of propaganda.

ENGL 445 Historical and Comparative Linguistics 3 Credits

This course is an examination of the process of language change and the principles governing the historical and comparative studies of language. Some of the topics to be covered will include the synchronic and diachronic approaches in language analysis; the comparative methods; internal reconstruction; lexicostatistics; the great vowel shift; Grimm's and Verner's Laws. *Prerequisites: ENGL 142 and ENGL 341.*

ENGL 447 Translation and Interpretation Skills 3 Credits

This course will offer students an opportunity to acquire basic translation and interpretation skills. It targets students who are interested in developing a career in translation and interpretation and are competent in at least two languages. Topics to be covered include: difference between translation and interpretation, tools of a translator, contemporary theories of translation, free translation, translation equivalence, literal translation, machine translation, the use of electronic resources in translation, consecutive and simultaneous interpretation, sight translation, and audio-visual translation. Students will have a field trip to places such as national assembly, United Nations, media houses to have a hands-on experience in translation and interpretation. The course will have a project of translation and interpretation. *Prerequisite: Senior students with a Competence in at least two languages.*

ENGL 450 Lexicography 3 Credits

This course is an examination of the art and practice of writing dictionaries. It is subdivided into four parts: Part one is the pre-lexicography which deals with topics such as the meaning of lexicography, the history of lexicography, types of dictionaries, dictionary users, lexicographic evidence, tools for lexicographers, methods and resources, linguistic theory and lexicography, planning the dictionary, planning the entry etc.; Part two deals with analysing the data and covers topics such as building the database(word senses and the lexical units); Part three deals with compiling the entry and covers topics such as building the monolingual entry, the translation stage, building the bilingual entry etc. The last part of the course examines some specific types of lexicography focusing on lexicography of African languages. Students will produce a mini-project of at least 1,000 entries either as a group or individually. *Prerequisite: ENGL 447*

ENGL 456 Varieties of English 3 Credits

The course explores the notion of standard English. General Criteria for standardization. Contrast between British and any other native Englishes. English as a second, foreign and international language. Variation in English according to: education, topic, medium and attitude. The notion of localized forms of English, e.g. Chinese, Indian, Caribbean, Nigerian and Kenyan English Institutionalized English varieties and the development of creoles and pidgins from English.

ENGL 463 Psycholinguistics 3 Credits

This course deals with the relationship between language and the mind. It focuses on biological foundations of language and the brain mechanisms underlying its acquisition and use. The course will focus on the following areas of study: language processing, language storage and access (lexical storage and retrieval); language and the brain; language in exceptional circumstances (language handicaps); first and second language acquisition; language comprehension theory (language, thought, and culture); Language disorder; aphasia, dyslexia and lipsping.

ENGL 465 Principles of Creative Writing 3 Credits

The course examines the craft of fiction in a short story, novel, biography, drama, or poetry. It focuses on point of view; themes for creative writing; creation of aesthetic pleasure, among other aspects. A student submits supervised creative work for examination (It can be three short stories, a novella, a 20-page play, or 10 poems)

ENGL 469 Research Project/Seminar 3 Credits

This course requires each student to write a dissertation of not more than 10,000 words on an aspect of English or English language teaching. The student identifies a researchable linguistic topic; reviews literature related to a linguistic research problem. States a linguistic research problem; formulates appropriate research questions and states the relevant assumptions/ hypotheses; specifies the variables in linguistic research: language variables; social variables and other variables. Determination of sample size and characteristics; methods of collecting, processing, presenting and analyzing linguistic data. Writing a linguistic research report chapterization, documentation styles. A supervisor will guide the student to write on topics such as discourse analysis, pragmatic nominalization, English for Specific Purposes, sociolinguistics, second language acquisition, among others. The course will culminate into an oral presentation session to be attended by faculty in the department. *Prerequisite: ENGL 105.*

ENGL 480 Internship in Languages and Literature 3 Credits

This is a ten to twelve weeks hands-on experience whereby students are attached to an organization where they can apply language skills, linguistics or literature. Some areas to consider include translation and interpretation, editing, film production, drama, writing, lexicography, public relations, advertising, publishing, journalism, etc. The student must clock in at least 300 hours during the internship period. The student will be evaluated by both the site supervisor in the organization and the course instructor. The student will produce a comprehensive report that contains exhibits of the work done in the organization during the internship period.

ENVI 110 Introduction to Environmental Science 3 Credits

The purpose of this course is to introduce the learners to the concept of Environmental Science, especially the concept of Biodiversity of the physical Environment, the impact of Waste, Pollution and Eutrophication of water bodies on the quality of Environment and Human Population's impacts on Natural Resources and Ecosystems.

ENVI 113 Fundamentals of Physical Environment 3 Credits

The Course outlines the basic fundamentals of Physical Environment. The targeted topics include: Introduction to Physical Environment, Components of Physical Environment

such as Lithosphere, Atmosphere, Hydrosphere and Biosphere and Biogeochemical cycles and energy flows that bind the physical Environment.

ENVI 115 Fundamentals of Atmospheric Science 2 Credits

The atmosphere: Identity, structure and composition; atmospheric heating, heat transfer, and radiation balance. Atmospheric moisture and water balance. Atmospheric circulation. Atmospheric turbulences and their measurements. Atmospheric phenomena: surveillance, modeling and forecasting. Atmospheric photochemical reactions. Atmospheric pollution and degradable pathways.

ENVI 210 Environment and Development 3 Credits

This course relates the concepts of Environment and Development. It provides the basic types of Environment and further outlines the values of Development and then states the differences between Economic and Ethics of Development. Further it also outlines the Millennium Development Goals and shows the dynamic relationship between Development and the changing Human-Environment and finally looks at the Sustainable Development.

ENVI 227 Environment and Society 2 Credits

The course aims at demonstrating that the lithosphere and hydrosphere, form a coherent and interactive whole. The first part dealing with the atmosphere and hydrosphere includes discussion of world climates and water resources. The second part is concerned with the lithosphere and the use of its mineral and soils. The third part examines the major factors affecting the distribution of plants and animals, and relate them to environmental management/sustainable development. The fourth part discusses the role of man identifying the major environmental problems such as global warming, energy alternatives, loss of biological diversity, land degradation etc., finally introduce the concept of environmentalism, green ecology etc.

ENVI 298 Hydrological studies and Water Resources 3 Credits

An introduction to the realm of water and its usefulness to man. Basic hydrological Principles: The Hydrologic cycle and its driving forces, global distribution of water in time and space, hydrological processes: evaporation/evapotranspiration, condensation, precipitation, surface runoff, infiltration and percolation, sub-surface flow; Stream evolution, flows and drainage networks, groundwater capacity, aquifers, recharge and discharge of aquifers, potential and limitations of groundwater vis-à-vis surface water. Measurement and evaluation of the hydrological processes: Hydrologic phenomena analysis, Extreme events. Water uses, environmental, social, economic aspects of water resources. Water use and the environment. *Prerequisites: GEOG 114. *This course is only for students studying for B.Ed. with Geography as a teaching subject.*

ENVI 310 Environmental Ethics 3 Credits

This course introduces the concept of "Ethics" as it relates to the Environment. The major focus of the discussion include: The meaning of Environmental Ethics; The basis of Environmental Ethics and the challenges involved in the development of Environment ethics; Focus on Environmental Ethics and different kinds of Environmental Ethics such as ecological extension; Environmental Worldviews such as Human centered, Life centred and Earth centred; and Environmental Ethics and political views on Environmental Ethics.

ENVI 320 Elements of Environmental Law 2 Credits

Definition; evolution, development and implementation. Central and local government laws relating to environmental resource aspects: land, water, energy, forest, wildlife, fisheries, public health, motor vehicles, agriculture, waste disposal, factories, storage of toxic substances. World, regional and national treaties and laws, riparian resources and the law. UNEP, NEMA, of Kenya, etc.

ENVI 336 Hydrology and Water Resources 3 Credits

The course introduces the student to the actual realms of water and its usefulness to man. The course will specifically address, Hydrological Principles: The Hydrologic cycle and its driving force, global distribution of water in time and space, hydrological processes: evaporation/evapotranspiration, condensation, precipitation, surface runoff, infiltration and percolation, sub-surface flow; Measurement and evaluation of the hydrological processes: Hydrologic phenomena analysis, Extreme events. Water uses, environmental, social, economic aspects of water resources. Field trip required. *Prerequisites: GEOG 111, GEOG 112 and GEOG 330.*

ENVI 350 Forum on Environment 2 Credits

This course provides an insight into the pressing environmental issues to the students through lectures, discussion, and field study of environmental problems; philosophical, political, social, religious and ethical implications. Offerings have focused on global issues; interactions of population, resources pollution, climatic change, energy demand, depletion of ozone layer, desertification, soil erosion, rain forest depletion and many others. Field studies are important component of this course.

ENVI 354 Resources, Development, and People 3 Credits

An analysis of human population growth and its impact on the earth's resources, including food, energy, physical materials, water, biota, and landscape; the geography of resources availability and the limits of the earth as a producer of resources; the impact of attitudes and values in resource use.

ENVI 356 Environment and Development Policy 3 Credits

This course focuses on Environmental, social, economic and political issues on human activities such as land degradation, soil erosion, deforestation and technology. It also outlines the meaning of and process of Development policy and then focuses on Development policies on the same human activities especially in Kenya. Further it indicates the resolutions on Earth's summit on Environment and Development Conference in De Janeiro in 1992, mainly in areas such as Climate change and Biological Diversity, Sustainable Development and Goals for Sustainable Human Development.

ENVI 380 Agroforestry 2 Credits

This course entails definition, history, concept and emerging concept of agroforestry; components; Environmental, economic and social relevance. Buffer zone; shamba system; Agri-agroforestry typologies; urban agroforestry. Contemporary policy issues in agroforestry. The challenges to agroforestry practice.

ENVI 442 Water Resources, Environment and Development 3 Credits

The Course introduces the learner to the source of water through hydrology. Further it provides the advanced and applied perspectives of water resources, the utility and constraints

to both the society and the Environment. The specific utility is outlined on domestic, industrial, agricultural, conservation and riparian water.

ENVI 460 Natural Resource Evaluation, Management and Development 3 Credits

The course is focused on the management and evaluation of Natural Resources in the Environment. The discussed topics include: Definition of Natural Resource and further the definition of management, evaluation and development of Natural Resources; Classification of Natural Resources: Theories of Natural Resource Management and their analysis; Problems in the formulation, implementation and evaluation of Natural Resource (such as Minerals) policies and Environmental policies that are based on Natural Resources in Kenya.

ENVI 470 Special Topics in Environment 2 Credits

The course outlines a topic on Environmental Studies that is stipulated, and is chosen by the student and researched on under the supervision of an appointed Lecturer of the Department. The outcome of the study should add new dimension to both the student and the course Environmental Studies. *Prerequisite: ENGL 105.*

ENVI 475 Climate Change and Environmental Management 2 Credits

This course studies the scientific principles of environmental issues and environmental management practices, focusing on the health of both humans and the ecosystem. Fundamental and emerging topics related to air and water pollution, water use and management, aquatic ecosystems, energy and climate change, biodiversity, toxic substances in the environment, solid waste management, and regulatory strategies for risk assessment and environmental management are discussed.

FREN 105 Beginning French 2 Credits

This course is specifically designed for students with no prior knowledge of or instruction of French. Emphasis is placed on the development of the four basic language skills: listening, speaking, reading and writing. Some of the topics to be covered include French alphabet, French pronunciation, greetings, numbers, noun gender, days of the week, months of the year, how to ask questions, ask and give dates, conjugate verbs in present, past and future tenses, write basic sentences, write basic composition, conduct basic conversation in French, read short passages, listen to basic French etc.

FREN 104 Introduction to French Language 3 Credits

This course is a continuation of FREN 004, with emphasis on conversation, listening, reading and writing. The course is for students who have successfully completed FREN 004 with a grade of C+ or better, those with prior basic French knowledge. *Prerequisite: FREN 004 or proof of prior knowledge of French*

FREN 111 French Language and Grammar 3 Credits

This course is designed for students who have background knowledge of French. Emphasis is placed on the following: fundamentals of grammar with elements of conversation, comprehension and conversational skills.

FREN 112 Structure of the French Language 3 Credits

The French language and its structure, sentence formation, clause and sentence structure are studied with the aim of seeing the interrelatedness of the constituents in language construction.

FREN 114 French Grammar and Usage 3 Credits

This course deals with the reinforcement of grammatical structures, vocabulary and speech acts covered at KCSE level. It involves the comprehension and exploitation of relevant passages for descriptive essay writing, as well as readings in French to consolidate 'Français fondamental' and to give intensive practice in comprehension and writing. It is a consolidation of various tenses, their inter-relations and usage. It includes the formation and usage of the passé simple, the plus-que-parfait, the futur, the conditionnel passé and use of double pronouns. The course ultimately leads to the improvement of written expression through essay writing, with particular emphasis on logical presentation of ideas, practice in note-taking and precise writing. *Prerequisite: FREN 111.*

FREN 130 Oral Expression and Aural Comprehension 3 Credits

This course is an introduction to the International Phonetic Alphabet and its use, exercises for pronunciation correction, dictations, reading aloud (narratives, descriptions, notices), listening with understanding, role-plays, dialogues and exposés. Emphasis is on vocabulary of spoken French and guided practice to increase comprehension and oral proficiency. *Prerequisite: FREN 114.*

FREN 131 Written Expression and French Grammar 3 Credits

Types of writing, letter writing both official and unofficial, argumentative writing, descriptive and narrative text writing, how to write announcements, aspects of spelling and punctuation. It involves the comprehension and exploitation of relevant passages for descriptive essay writing, as well as readings in French to consolidate 'Français fondamental' and to give intensive practice in comprehension and writing. The course also leads to the improvement of written expression through essay writing, with particular emphasis on logical presentation of ideas, practice in note-taking and precise writing. *Prerequisite: FREN 112.*

FREN 140 History and Modern Trends of the French Language 3 Credits

This course deals with the earliest manifestation of the French language: its basic phonological structure, orthography, grammar and vocabulary. Old French (12th -13th Centuries) and its dialects are also looked into. It covers evolution from Old French to Middle French to the spread of the Peoples' French as well as Classical and Post-classic French, the precursor to Modern French. Other issues that will be discussed in this course include: an overview of the French language in the world as a mother tongue and as a second or foreign language. This course also looks into interference between French and other languages: Creoles, influence of immigration, influence of English; Levels of language: geographical, social and professional variants; Changes and trends of innovation in modern French (orthographic, phonetic, lexical syntactic and semantic).

FREN 210 Introduction to General Linguistics in French 3 Credits

This course involves a brief historical overview of linguistic studies of the French language, the areas and branches of contemporary French linguistics, their basic concepts and principles. It specifically covers the following areas: definition of linguistics, introduction to descriptive linguistics, its major sub-divisions, levels of linguistic analysis, the speech community, language and dialect, bilingualism and multilingualism, standard French language, Pidgins and Creoles.

FREN 211 Introduction to Translation 3 Credits

The course covers basic principles and techniques of translation. It also looks into major grammatical and lexical problems encountered in the translation of sentences and texts from English to French and vice versa.

FREN 220 French Phonetics and Phonology 3 Credits

In this course, the student learns about the production and classification of French sounds, phonetic transcriptions, supra-segmental features and practical exercises in speech production. The student is thus exposed to French phonemes and their representation in orthography, phonology and word divisions, prosody and word divisions, prosody and syntax, prosody and punctuation, prosody and meaning. *Prerequisite: FREN 210.*

FREN 225 Introduction to French Literature and Literary Analysis 3 Credits

This course involves the study of plot, style, characters, forms and content analysis, figures of speech and other stylistic devices. Application of techniques studied is applied to literary texts in French. Literary essay writing is also covered. Other topical issues that are discussed in this course include: style and stylistics, schools of style, theories and approaches of various scholars to style, relationship between stylistics and other branches of linguistics such as sociolinguistics and literature.

FREN 230 Panorama of Francophone Literature 3 Credits

This course covers a general presentation of the literature of the French-speaking world, with special reference to the geographical and historical background of authors and how these affect their generic and thematic presentations of various trends in francophone literature. The course considers selected works of writers from Africa, the Caribbean, France and Malagasy. *Prerequisite: FREN 225.*

FREN 240 The French African Novel and Short Stories 3 Credits

This course involves the study of novels and short stories by French speaking authors or of other authors within this category, whose literary works have been translated into French. The course involves studying the manner in which particular novelists deal with predominant issues within a particular historical context. Study of works representing both pre and post-independence periods, among them are Mongo Beti, Cheikh Hamidou Kane, Sembene Ousmane, Ferdinand Oyono and Henri Lopes. *Prerequisite: FREN 225.*

FREN 241 Culture and Civilization of France 3 Credits

This course involves the study of the various aspects of the culture and civilization of France specifically, with glimpses into that of the Francophone community in general. The course gives insight into the societal structures and organizations, art forms, socio-linguistic setups, material culture, social administrative institutions, using written, audio and audio-visual.

FREN 310 French Oral Literature 3 Credits

This course involves the study of various oral literature genres such as myths, legends, tales, epics and proverbs. Special attention, in this course, is drawn to structural, psychological, social, religious and ethical approaches surrounding the various genres.

FREN 315 French for General, Academic and Professional Purposes 3 Credits

This course deals with the study of various uses of the French Language in different situations, all depending on the context in which the language is put into use. These include French daily informal use as well as the formal use of the language such as in research and administrative purposes.

FREN 320 French Semantics and Lexicology 3 Credits

This course will be taught in two parts. In part one, the following areas will be examined: Identification and study of the 'meaning carrying features' of the French language and the study of that meaning from various perspectives. The course involves applications of semantic and lexicological studies by considering areas of sense relations such as: synonymy, homonymy, polygyny, semantic fields, lexical analysis, connotation, denotation, collocations and neologisms. In part two, emphasis will be laid on the following topical issues: meaning of pragmatics; micropragmatics and macropragmatics, speech acts, implicature and context.

FREN 327 Written Expression and French Grammar II 3 Credits

In this course, students rely on the rules of grammar to do report writing, note-taking, learn how to write dissertations and also curriculum vitae. It equally learning how to organize and reconstruct written texts as well as how to write complex texts, based on both fiction and non-fiction.

FREN 330 Culture and Civilization of the French-Speaking Community 3 Credits

This course involves the study of the various aspects of the culture and civilization of French-speaking Africa, France and of the Caribbean francophone world. This course gives insight into the societal structures and organizations, art forms, socio-linguistic setups, material culture, social administrative institutions, using written, audio and audio-visual materials.

FREN 334 Applied Linguistics 3 Credits

The course deals with linguistics as a scientific study that is relevant not only to language but to other disciplines as well. It thus looks at the relationship between linguistics and other domains of everyday life. Applied linguistics is an interdisciplinary field of linguistics that identifies, investigates, and offers solutions to language-related real-life problems. Some of the academic fields related to applied linguistics, which will be viewed in the course are education, psychology, communication research, anthropology, and sociology.

FREN 335 Caribbean Literature 3 Credits

This course covers studies on The Novel as an expression of 'Conscience Antillaise'. These include the works of Rene Maran, Prince-Mars and Jacques Roumain. The course also includes a study of selected poets and dramatists such as Depestre, Césaire, Damas and Niger.

FREN 336 Translation and Interpretation 3 Credits

The course covers the principles and techniques of translation using: the interpretative approach, understanding texts in the source language, context, detachment from the source language and the expression in the target language. To be considered are translation of communicative texts such as prose and poetry, excluding scientific, technical and literary texts. The student is also enlightened on the techniques of consecutive and

simultaneous interpretation and the practice of note taking in consecutive interpretation.

FREN 337 Introduction to French Literature 3 Credits

This course involves the study of plot, style, characters, forms and content analysis, figures of speech and other stylistic devices. Application of techniques studied is applied to literary texts in French. Literary essay writing is also covered. Other topical issues that are discussed in this course include: style and stylistics, schools of style, theories and approaches of various scholars to style, relationship between stylistics and other branches of linguistics such as sociolinguistics and literature.

FREN 340 Textual Analysis in French 3 Credits

This course involves the analysis of various French texts with the aim of improving awareness of the manner in which the French language is put into use depending on the different types of writing, such as scientific writing, journalistic writing (editorials and news reports), advertising and contemporary novels.

FREN 414 Semantics and Lexicology 3 Credits

This course will be taught in two parts. In part one, the following areas will be examined: Identification and study of the 'meaning carrying features' of the French language and the study of that meaning from various perspectives. The course involves applications of semantic and lexicological studies by considering areas of sense relations such as: synonymy, homonymy, polygyny, semantic fields, lexical analysis, connotation, denotation, collocations and neologisms. In part two, emphasis will be laid on the following topical issues: meaning of pragmatics; micropragmatics and macropragmatics, speech acts, implicature and context.

FREN 415 Sociolinguistics in French 3 Credits

This course involves the study of language and language acquisition in relation to society. Aspects covered include language borrowing, language acquisition, multilingualism, bilingualism, language formation and language disappearance among others.

FREN 420 Introduction to Translation and Interpretation 3 Credits

The course covers the principles and techniques of translation using: the interpretative approach, understanding texts in the source language, context, detachment from the source language and the expression in the target language. To be considered are translation of communicative texts such as prose and poetry, excluding scientific, technical and literary texts. The student is also enlightened on the techniques of consecutive and simultaneous interpretation and the practice of note taking in consecutive interpretation.

FREN 421 Morphology and Syntax 3 Credits

This course covers the analysis of the structure of the French word. Central issues to be focused on include the root of the French word, affixation and word formation processes. Other issues that feature in this course include word-building techniques such as compounding and clefing. It also deals with various aspects of the French sentence by explaining its componential parts. Such theories pertaining to the formation and analysis of the French sentence are analyzed and applied. The theories include: transformational generative grammar, government and binding, phrase-structure grammar, and extended revised standard theory. *Prerequisite: FREN 210.*

FREN 430 French for the Hotel, Tourism and Travel Industries 3 Credits

In this course, the student will learn the specialized French technical language relating to the hotel: personnel services, facilities, making reservations by mail, telephone, fax, welcoming guests, personal/group receptions, giving/getting information on accommodation, travel, tourist sites, transportation, travel agents, hotel activities, excursions, sports, seminars, dishes, hotel equipment and paying for services, among other things.

FREN 435 The French Novel and Philosophical Works 3 Credits

This course deals with the study of texts illustrating characteristic aspects of these centuries. These include *La Vie de Marianne* (Marivaux), *Manon Lescault* (Abbe Prevost), *Les Confessions* (Rousseau), *Jacques le Fataliste* (Diderot), *Zadig* (Voltaire) as 18th century works. Nineteenth century authors include Balzac, *Standhal*, *Flaubert*, *Zola*, *Hugo*, *Baudlaire*, *Verlaine* and *Rimbaud*. Twentieth century texts include works on classic and symbolist tradition (Gide), poetic prose (Colette), Humanism (Malraux), Existentialism (Satre), *Nouveau Roman* de Behavior Feminism (Sarraute).

FREN 440 French for Management and Administration 3 Credits

This is a study of specialized French technical language for management and administration. Among other things, the student will learn about official letter/memo writing and dictating, report/minute writing and presentation, advertising a vacancy, responding to an advertised vacancy, preparing a curriculum vitae, conducting an interview, preparing/presenting statements of accounts, budgets, arranging for and conducting board meetings, making travel arrangements, sending out invitations and booking rooms.

FREN 445 French Drama 3 Credits

The course involves a study of the genre in its different aspects. The course covers areas such as stage conventions, characters, the public, techniques involved and the evolution of drama. Forms of drama are covered as well. These include the realistic, romantic, symbolist, existentialist among others.

FREN 446 Introduction to Francophone African Literature 3 Credits

This course is an introduction to francophone African literature. It involves the study of novels and short stories by French speaking authors or of other authors within this category, whose literary works have been translated into French. The course involves studying the manner in which particular novelists deal with predominant issues within a particular historical context. Study of works representing both pre and post-independence periods, among them are Mongo Beti, Cheikh Hamidou Kane, Sembene Ousmane, Ferdinand Oyono and Henri Lopes. *Prerequisite: FREN 225.*

FREN 450 French Poetry 3 Credits

This course involves a study of the poem genre in view of its themes, its audience and its technique. It considers types of French verse (Rhythm and Sonority types of classical French poems). It also involves a study of poems showing the evolution of the genre: Romantisme, Parnasse, and Surrealism.

FREN 454 Academic Research: Basic Principles and Methods **3 Credits**

This course deals with reasons leading to research, choice of area and research topic, justification, bibliography compilation, literature review, originality, plagiarism, objectives, hypothesis, theoretical framework, methodology, data collection, research paper/thesis writing and presentation, problems and limitations of research. *Prerequisite: ENGL 105.*

FREN 455 Project Paper **3 Credits**

In this course, a student is expected to write a 4,500 to 5,000 words research paper of literary piece of work, short story, play or collection of poems related to one or more of the course units covered in the French program. The topic of research or creative writing is selected in consultation with the instructor within the first two weeks of the quarter in which the course is taken. Thereafter, the student consults with the designated supervisor for at least ten hours spread over a period of ten weeks. *Prerequisite: FREN 454.*

FREN 460 Attachment- French Language and Communication Field **4 Credits**

In this course the student is expected to go out in the field, with the aim of putting into real life the theoretical aspects of the French Language covered in class. To do this one is expected to work in a Francophone country or in a French-based company such as Alliance Française, Alcatel, and Total etc. within a three month period at the end of the attachment, the student writes a report on the experience gained and challenges experienced This is submitted to the Instructor at the end of the semester.

MUGR 100 Music Appreciation **2 Credits**

This course is designed to meet general education requirements. It is an introduction to a wide range of music. Consideration is given to the various political, social, and religious factors that have caused changes in musical style from one art period to another. Representative compositions from various art periods are studied and attention is directed to the correlation of music with other arts. The course also covers elements of music, the effects of music on the human body, an introduction to African Music and the instruments of the orchestra. Note: Students who register for a major or minor in music are exempted from taking MUGR 100 as this is covered in greater detail in their music courses units covered in the music program.

GEOG 101 Introduction to Geography **3 Credits**

A study of philosophical foundations of Geography taking into consideration the progress made in the subjection the last present centuries; current trends in Geography, general principals underlying the major branches of Geography and other academic disciples; the application of Geography into current problems and an understanding of how the subject illuminate the Bible.

GEOG 105 A Survey of World Geography **3 Credits**

This course is designed to introduce to students the systematic and scientific explanation of the major physical and climatic characteristics of the earth. Emphasis will be placed on the various geographical regions of the world (i.e. equatorial, tropical, desert, tropical highlands, mid-latitudinal, maritime, continental interior, sub-polar, mountain and oceanic.), resource assessment level of development and constraints.

GEOG 111 Fundamentals of Physical Geography I **3 Credits**

Introduction to the nature and scope of physical geography, the

components of physical geography and interactions amongst themselves and society, the origin of the earth and entire solar system/universe, internal structure of the earth, plate tectonics and continental drift, introduction to major Earth's geologic and topographic features as caused by endogenic and exogenic processes, the atmosphere, its composition, structure, processes and circulations, weather, climate and factors influencing climate, the biosphere; its nature and components, biotic and abiotic factors, the ecosystem and its structure, energy flow and nutrient cycling. Field trip arranged as required.

GEOG 114 Fundamentals of Physical Geography **3 Credits**

Introduction to the nature and scope of physical geography, the fields of physical geography and interactions amongst themselves and society; the origin of the earth and entire solar system/universe; Introduction to the structure of the earth, plate tectonics and continental drift, introduction to major Earth's geologic and topographic features of endogenic and exogenic processes; slopes and associated processes, weathering and its impact on landscape; summary of external forces and processes of land sculpture and resultant landscapes. Introduction to soils, soil formation, factors, types, soil profile, soil uses, degradation and conservation. The atmosphere, its composition, structure and processes; the concept of weather and climate and their factors. Atmospheric pollution and control. World hydrological cycle, global water distribution; stream evolution, flows and drainage networks, groundwater, water conservation. The biosphere; the ecosystem concept: ecosystem components and structure, natural populations and communities; energy flow and nutrient cycling; the food chain and food web concepts. Biogeography and biogeographic distributions. Biodiversity, its significance, threats and solutions. **This course is only for students studying for B.Ed. with Geography as a teaching subject.*

GEOG 121 Fundamentals of Human Geography I **3 Credits**

Scientific revolutions and evolution of academic disciplines. Scientific nature of human geography. Content and methodology of human geography. Philosophical underpinnings of human geography. Basic economic concepts. Classical location theory (von Thunen's agricultural location theory; Weber's industrial location theory and Christaller's Central place theory). Spatial patterns of rural and urban land use. Bases for spatial interaction: gravity models and diffusion models. Lectures, class discussions, practical exercises, drawing of maps, class presentations, small buzz groups, book reviews and use of guest speakers. May require field trip as determined by the instructor.

GEOG 123 Fundamentals of Human Geography **3 Credits**

Introduction to the nature and scope of human geography, the fields of human geography and interactions amongst themselves and society; scientific nature of human geography. Philosophical underpinnings of human geography; Content and methodology of human geography. Evolution and organization of human societies and activities; scientific revolutions. Concept of the region; region and the study of human geography. Basic economic concepts: rural and urban land use theories Classical location theories (von Thunen's agricultural location theory; Weber's industrial location theory and Christaller's Central place theory for location of service centres). Land use and decision making. Processes of decision making. Spatial patterns of rural and urban land use. Spatial processes- diffusion and interaction; Bases for spatial interaction: gravity models and diffusion models.

Spatial interaction models, macro and micro patterns of spatial interaction. Measurement and analytical techniques. Transport networks evolution, structure and properties of networks; Nodes: industries and urban centres as nodes; location of service centres; regularity of nodes. Migration, types and the migration models. **This course is only for students studying for B.Ed. with Geography as a teaching subject.*

GEOG 130 Introductions to Cartography, Mapwork and Land Surveying **3 Credits**

This course aims at introducing the students to the basics of cartography, map reading and map interpretation with special emphasis on the tools and techniques; history of cartography; use and care of drawing instruments; free hand lettering; map scales; convectional signs used in maps; map orientation; map legend; map revision; thematic maps; chorochromatic and dot maps, measurements of distance and area. Analysis of site and situation, properties and construction of map projections, map design, preparations and map interpretation will be covered. The course further, gives the students an introduction to basics of land surveying instruments, and field practice through plane tabling, prismatic compass and chain survey, slope profiling, etc. Two lectures and two-three-hour laboratory per week are recommended.

GEOG 207 Geospatial Programming Fundamentals **3 Credits**

This course provides fundamental skills for geospatial programming. It provides an understanding of how to customize GIS software applications by way of modified service interface elements. Topics include calling geographic processing tools, batch processing, performing file in an external computing language and building, graphical user interfaces and displays. To support these tasks, students learn basic programming concepts, such as pseudocode, flow-control, code re-use, and debugging. Students will also learn how to automate GIS tasks using the Python scripting language. Automation can make your work easier, faster, and more accurate, and knowledge of a scripting language is a highly desired skill in GIS analysts.

GEOG 210 Economic Geography **3 Credits**

Analysis and modelling of the spatial structure of primary, secondary, and tertiary economic activities; location theory and regionalization in economic systems; case studies of different regions, their problems and consequences. *Prerequisite: GEOG 121.*

GEOG 211 Fundamentals of Physical Geography II **3 Credits**

World hydrological cycle, global water distribution, the water balance and its components, precipitation, evaporation and evapotranspiration, moisture in the atmosphere, clouds, stream flows, origin and evolution of rivers, drainage networks, groundwater capacity, aquifers, recharge and discharge of aquifers, potential and limitations of groundwater and vegetation water needs. Introduction to geomorphologic processes- Fluvial and Aelian processes and resulting landforms, theories of landform development. Introduction to soils, the cycle of erosion, slopes and associated processes, weathering and its impact on landscape and land use, the work of waves in coastal areas in terms of erosion, deposition and impact on land use. *Prerequisite: GEOG 111.*

GEOG 221 Fundamentals of Human Geography II **3 Credits**

Concept of the region, spatial processes, diffusion and interaction. Measurement and analytical techniques. Land use theory (rural

and urban land use theories), land use and decision making, spatial interaction models, macro and micro pattern of spatial interaction, structure and properties of networks, evolution of transport networks, industries and urban centers as nodes, location of service centers. Regularity of nodes. Processes of decision making. Migration and the gravity models. May require field trip as determined by the instructor. *Prerequisite: GEOG 121.*

GEOG 224 Urbanization, Planning and Land Survey **2 Credits**

The purpose of this course is for students to acquire knowledge and skills to describe the history of urbanization in Kenya. Describe the dynamics of rural and urban development. Acquire knowledge and skills of urban planning. Describe the methods and techniques of land use and zoning and participate in initiatives to improve rural and urban conditions. Describe the components of quantity surveying, contract management and procedures and demonstrate skills in land surveying. Three lecture hours per week and planned field trips (this course is intended for Public Health Students only). *Prerequisites: PHEH 110, BIOL 286 and PHHC 140.*

GEOG 226 Geography of Tourism and Leisure **3 Credits**

Definition of tourism, recreation, travel and touristic activities; Tourism and recreational activities and resources, factors influencing tourism, Origins and destinations; Growth and development of tourism and recreation. Role of tourism in economies; Environmental, cultural and socio-economic impacts of tourism; tourism planning and development; travel and tourism law and regulations; the application of Functional Business Disciplines in the context of Travel and Tourism, Information Technology; Marketing; Tour and travel related services; Sustainable tourism (ecotourism) development; Tourism and recreational sites in East Africa and Switzerland, conflicts and conflict resolution in the tourism and recreational sector.

GEOG 227 Environmental Geography **3 Credits**

Concepts of environment and society. The course aims at demonstrating that the lithosphere and hydrosphere, form a coherent and interactive whole. The first part dealing with the atmosphere and hydrosphere includes discussion of world climates and water resources. The second part is concerned with the lithosphere and the use of its minerals and soils. The third part examines the major factors affecting the distribution of plants and animals, and relate them to environmental management/sustainable development. The fourth part discusses the role of man identifying the major environmental problems such as global warming, energy alternatives, loss of biological diversity, land degradation etc., finally introduce the concept of environmentalism, green ecology etc. Environmental issues in Kenya's constitutional and legislative frameworks on the environment. Global environmental issues. Environmental pollution and externalities. Conservation and management of environmental resources. Emerging environmental issues. National and international policy issues on the environment.

GEOG 255 Principles of Geographic Information Systems **2 Credits**

This course introduces students to the theory and practice of Geographical Information Systems (GIS). It is open to all students irrespective of their discipline as long as they have taken the required prerequisites. It forms the foundation for students interested in applying GIS methods in their respective disciplines. Emphasis will be placed on geographic information

data and joining of data, an introduction to cartography, data transformation, geo-coding, and buffering point locations. One lecture and two three-hour Laboratories each week will be required. *Prerequisites: OFTE 120, INSY 106 and MATH 107, or MATH 115 or MATH 171.*

GEOG 276 Database Design **3 Credits**

The goal of this course is to provide students with knowledge and skills necessary to produce a well- designed database that enables the timely delivery of accurate information in a useful form. Topics include: file handling, data models, access methods, data dictionary, administration, planning and designing and implementing databases, database programming tools and the selection of a DBMS for implementing an information system. The course will also cover principles of user-oriented database design, requirements analysis, data modeling, data integrity and security, multi-user databases, database normalization, concurrent updates, will also be discussed and practiced. Emphasis will be on using at least two popular database management systems to build and maintain relational databases. The student will create databases, queries, custom forms and reports. Additionally, SQL programming will be used extensively.

GEOG 296 Geomorphological Studies **3 Credits**

Principles, concepts and history of geomorphology, theories of land forms development, modern approaches to the study of geomorphological phenomena, geomorphic processes (external and external), landform processes, evolution and land form development under different climatic and geological environments - theories of landform development: Davis concept of the cycle of erosion, concepts of grade, dynamics equilibrium and the application of systems theory; theories of plate tectonics and continental drift, Great Rift systems, drainage basin system as a unit of study, climatic geomorphology, desert, humid and glacial/periglacial environments, climatic controls on weathering, importance of climatic change. Fluvial and Aeolian processes and resulting landforms. *Prerequisites: GEOG 114. *This course is only for students studying for B.Ed. with Geography as a teaching subject.*

GEOG 310 Geography of Kenya and the East African Region **3 Credits**

A systematic study of Kenyan natural and human environment with special emphasis directed upon the physical, climatic, pedagogical, vegetation and human environments; resources potential and development constraints. Consideration will be done of the rest of East Africa as a political and socio-economic region. The physical environment of East Africa; geology, topography including the East African Rift System, drainage, climate, soils and biogeography. The actual and potential natural resources. Environmental and other problems. East Africa human environment. Language groups of the peoples of East Africa, population distribution and dynamics, agricultural, pastoral, traditional and modern land use systems, manufacturing, mining, energy, tourism and recreation, transport and urbanization in East Africa. **This course is only for students studying for B.Ed. with Geography as a teaching subject.*

GEOG 311 Geography of Kenya **3 Credits**

A systematic study of Kenyan environment with special emphasis directed upon the physical, climatic, pedagogical, vegetational and human environments; resources potential and development constraints. Field trip essential and graded.

GEOG 312 Geography of Development **2 Credits**

Geographic aspects of Third World development with special references to sub-Saharan Africa, including topics such as population growth, migration, industrialization, urbanization, trade, foreign aid and regional development. The spatial characteristics of economic development are studied and implications for policy discussed. Illustrative examples drawn from DCs. *Prerequisite: GEOG 210.*

GEOG 314 Geography of Africa **3 Credits**

The geography of Africa prior to and after colonial contact. The African environment as a resource: physical and human bases of regional contrasts. Environmental hazards and ecological problems: the climatic, conflict and globalization challenges; urbanization; Agricultural development, industrial development and spatial aspects of economic activity; internal and external trade; The population characteristics and problems; persistent underdevelopment in Africa; interstate and intra-state conflicts; The need for African integration; Attempts made, successes, failures and future outlooks; The future of Africa. May require field trip as determined by the instructor.

GEOG 315 Population Geography **3 Credits**

The aims of this course are twofold: first, the assessment of demographic data sources and surveys, basic demographic components, mortality, fertility, migration and population distribution in time and space; secondly, the models of population structure and change of developing countries visa-a-vis that of DCs; examination of demographic transition theory.

GEOG 321 Cultural and Behavioral Geography **3 Credits**

Analysis of a spatial behavior of man, underlying concepts and ideas: patterns, spatial cognition, and spatial diffusions; cultural regions, perceptions, attitudes and behavior; socio-organizations; role of perception and attitudes in environmental research and decision-making; introduction of behavioral geography research and methods; trends in behavioral geography.

GEOG 323 Remote Sensing **3 Credits**

Introduction to remote sensing and its history, remote sensing concepts and terminology. Introduction to aerial photography, role of aerial photographs, types of aerial photographs, history of aerial photography. Acquiring aerial photographs, scales of photographs, types of films, aerial cameras, interpretation of aerial photographs – marginal information, stereoscopes and stereoscopic viewing, methods of air-photo interpretation – general examination, methods of identifying features and objects on photographs Technical aspects of remote sensing – electromagnetic energy, electromagnetic spectrum, types of satellites, sensors and platforms. Physical basis of remote sensing, sensor systems – passive and active, processes of acquiring remote sensed image. Pattern recognition and image interpretation, composite color images, multi-spectral color images, numerical analysis of remote sensed data – supervised and unsupervised classification; application of remote sensing in agricultural, forest, geological, meteorology, rangeland, urban land use, hydrological surveys among others. Limitations of remote sensing technology in developing countries such as Kenya. Three lectures and one three-hour laboratory per week. Field trip mandatory.

GEOG 326 Agricultural Geography **3 Credits**

Nature and scope of agricultural geography, fundamental principles and concepts in agricultural geography, regionalization

and classification in agricultural geography, agriculture and decision making, natural ecosystems and agricultural systems, energy in agricultural, biological bases of farming, problems and potentials of tropical vis-à-vis sub-tropical agriculture, political factor in agriculture, world's agricultural systems, technological innovations in agriculture, food and agricultural crisis in Africa, the green revolution and the Asian models of agricultural development, perceptions in agricultural geography, von Thunen's model of agricultural location, research in agricultural geography, sustainable agriculture, agricultural marketing, agricultural policies.

GEOG 328 Geomorphology **3 Credits**

Principles, concepts and history of geomorphology, theories of land forms development, modern approaches to the study of geomorphological phenomena, land form processes, evolution and land form development under different climatic and geological environments, geomorphic processes, theories of plate tectonics and continental drift, Great Rift systems, drainage basin system as a unit of study, Davis concept of the cycle of erosion, concepts of grade, dynamics equilibrium and the application of systems theory, climatic geomorphology, desert, humid and glacial/periglacial environments, climatic controls on weathering, importance of climatic change. The geomorphology of coastal environments. Field trip as required. *Prerequisites: GEOG 111 and GEOG 211.*

GEOG 332 Biogeography **3 Credits**

Scope of Biogeography; historical developments; current theoretical approaches; evolution trends of organisms and biogeography; biomass, comparative analysis of selected biomes, natural populations and communities; geographical variations; distributions; density and disturbances; primary and secondary ecological successions; eco-climatic zones of Kenya; field techniques, role of archaeology in biogeography. Field visits arranged as required.

GEOG 334 The Arid and Semi-Arid Land **3 Credits**

A systematic study of the physical and human background of the arid/semi-arid lands: climate, land forms, hydrology, soil and vegetation; A study of the past, present and future of settlement and resource utilization; spatial interrelationships of environmental, demographic, socio-economic and political systems; Application of technology to development of semi-arid environments; Prevention and reversal of desertification, management practices, control, desert research - case studies on Africa.

GEOG 348 Urban and Rural Settlement Geography **3 Credits**

This course provides concepts and theories of cities; their origins, functions and physical structure; evolution of urban institutions and ideas in different cultural and historical settings; regional planning, strategies and policy analysis; rural land use, planning and development, case studies of developing countries with focus on Africa and Kenya. May require field trip as determined by the instructor. *Prerequisite: GEOG 121 or permission by the Department*

GEOG 355 Geographical Information Systems **3 Credits**

Introduction of GIS and its role, use of modern technology in spatial data analysis, introduction to basic computer concepts, general operating system, GIS hardware, GIS software and lifeware, GIS application areas, institutions using GIS in Kenya.

Limitations of GIS technology. The course introduces students to a set of tools for collecting storing, retrieving at will, transforming and displaying spatial data from the real world for a particular set of purposes such as planning, estimating, and locational decision making for efficiency and effective use of resources and services. It forms one of the basic if not necessary options for all geography students and management planners.

GEOG 357 Web-Mapping **3 Credits**

The course focuses on both the theoretical and practical issues related to the dissemination of mapping/geographic content on the web and the development of map mashups and geospatial web services. This course focuses on the emerging technology in geographic information systems (GIS): Internet GIS. Internet GIS is a network-centric GIS technology that uses the Internet and the World Wide Web as a primary means of providing access to the functionality (i.e., analysis tools, mapping capability) of GIS and to the spatial data and other data needed for various GIS applications. It provides users capability to work interactively with maps and conduct spatial analysis on the Web. Students will learn how to design and implement advanced web mapping applications and geospatial web services using free software tools.

GEOG 358 Medical Geography **3 Credits**

This course introduces the student to geographic study of health and diseases, problems with special emphasis directed to the African situation. The nature and scope of Medical geography; cultural and ecological factors involved in the spread and distribution of diseases; disease mapping, diffusion; Development and health; nutrition and health; health care delivery system. Ethno medicine/medical pluralism; medical plants, their conservation and preservation, elements of Geo- medicine.

GEOG 400 Geographical Perspectives on Modern Society **3 Credits**

The course introduces students to contemporary environmental concerns examined in human geography. The areas of interest are human geography and its application to societal management problems, economic inequalities, urban growth and decline, problems of housing, cities and society, urban planning, etc. Field visits are required. Recommended for students with emphasis in urban geography and urbanization or consent of the Department.

GEOG 401 Statistics and Computer-Aided Data Analysis in Social Science **3 Credits**

Statistics and frequency distribution, measures of central tendency, measures of dispersion or variability and statistical maps. Basic techniques in geographic research and their limitations. Use of analytical and inferential methods including hypothesis testing, the normal distribution, data transformation, probability, sampling, parametric and nonparametric methods, and correlation will also be introduced. Aspects such as network analysis (river system), network pattern, network description using beta and gamma indices and communications networks, point patterns, area patterns, etc. *Prerequisite: GEOG 130, or permission of department chair*

GEOG 410 Research Methods in Social Sciences **3 Credits**

This course introduces students to definition of research, proposal and thesis writing; research variables; types of research, components of a good research project; research design and methodology, literature review; skills for conducting geographic research, and explores the uses, limitations, and methods

associated with quantitative and qualitative analysis in human and physical geography. Definition of a geographical research problem and the procedures used to carry out the research. Formulation and solution of geographic problems, methods of gathering, analyzing and interpreting the data, presenting the results. Field trip as determined by instructor. *Prerequisite: GEOG 401, or permission of department chair, ENGL 105*

GEOG 411 Geography of Natural Hazards 3 Credits

Definition, categorization and location of natural hazards in time and space. Processes and phenomena that pose threat to human life and interests. Circumstances that actualize disasters from hazards. Expected losses due to natural disasters. Minimizing the losses and Social technological and policy problems associated with such efforts.

GEOG 412 Urbanization in Developing Countries 3 Credits

Urbanization: the concept and consequences. Urban population: problems of definition. components of urban and rural population change; tempo of urbanization and urban concentration; projection of urban population; projection for individual cities and towns; urbanization trends in developing and developed countries compared; planning for urban growth. Case studies from Africa. *Prerequisite: GEOG 348 or permission of instructor.*

GEOG 414 Locational Theory and Land Use Analysis 3 Credits

The course aims at introducing to the student the classical and neoclassical, static and dynamic models of industrial location and spatial organization. Land rent theory, central place theory, multi-locational organization, growth transmission. *Prerequisites: GEOG 121 and GEOG 221 or permission from the department chairperson.*

GEOG 415 Soil Geography 3 Credits

The Course includes a comprehensive study of soils, and will include laboratory and field work in the study of soils, soil formation, organisms, soil associations and the use of soil. Special techniques used in the field and in the laboratory for soil study and soil mapping will be covered in the course. Soil management, application of soil surveys to resource planning, and the role of the Kenya Soil Survey. Three lectures, one three hour laboratory/field work per week.

GEOG 416 Transport Geography 3 Credits

Nature and classification of transport systems; bases of spatial interaction; Movements of people, goods, finances and ideas; Network growth; Analyses of physical networks; Structure of transport networks. The possibility matrix and the Taaffe-Morril-Gould models; Approaches to transport flow analysis; Transport infrastructural expansion and socio-economic development in Africa; Modes and means of transportation; Costs, choice and modes of transport systems; transportation in the land-locked countries, transport planning in rural and urban economies; Transport planning and policy; linear programming in transportation routing. Models of network expansion in developed and developing countries.

GEOG 417 Oceanography 3 Credits

Introduction to the physical, chemical and biological nature of oceans; Principles and processes of sediment transport; Origin and evolution of ocean basins; Geological processes operating on the continental shelf and near shore environments; Methods of deep sea investigations, bottom sampling and profiling;

Application of geophysics and acoustics; Mineral exploration on the sea-bed; Detailed study of Indian Ocean and the continental margin of the East African coast.

GEOG 421 Applied Land Use and Potential 3 Credits

This course introduces students to field techniques and surveys of land use with special emphasis directed to the study of techniques of land use survey; land evaluation, economic, and ecological basis for land use planning and environmental conservation: Models in contemporary agricultural land use in Africa: Land use policies, farming systems and rural development; case studies is a necessary component, field studies and observations. *Prerequisite: GEOG 326 or permission of instructor.*

GEOG 422 Computer Science for Geographers 3 Credits

Data capture: Digitizing, correction of digitized data, use of softwares; Data analysis: methodological approach to analysis and solving problems, portraying the logic in flow charts; Use of a modern structure high level language (e.g. BASIC, FORTRAN and PASCAL); program execution and testing; Database creation and management: data analysis, presentation of formation products. Areas of application: geology, land-use/land cover, transportation and mapping.

GEOG 423 Geospatial Modeling and Analysis 3 Credits

This course aims to provide students with the knowledge and skills necessary to investigate the spatial patterns which result from social and physical processes operating on or near the Earth's surface. There are a large number of problems involving spatial data. It explains digital representation and analysis of geospatial phenomena and provides foundations in methods and algorithms used in GIS analysis and modeling. It focuses on the advanced spatial analysis capabilities of GIS including density mapping, spatial modeling, point pattern analysis, interpolation, surface analysis, overlay analysis, spatial autocorrelation, proximity analysis, 3D spatial data visualization, network analyses and principles of geostatistics. Special focus is on terrain modeling, geomorphometry, watershed analysis and introductory GIS-based modeling of landscape process (water, sediment), land use land cover change modeling, suitability modeling, etc. The main goal of the class is for students to become familiar with the essential methodological and practical issues that are involved in sophisticated spatial analyses using GIS. Lab material will focus on the applications of ArcGIS's Spatial Analyst, 3D Analyst, and Network Analyst extensions. *Prerequisite: GEOG 130 and 355, or permission of department chair.*

GEOG 425 Data Processing 3 Credits

Data control and transmission: data control, data safety and security, method and media, transmission of data, data structures, arrays queues stacks, linear linked lists, selected sort and file types; strings, file processing, batch-processing, time-sharing, real time processing, work processing, networks, distributed data processing, multi-programming; Management task: management of data processing activities, information management systems analysis and design: Organization and methods.

GEOG 430 Meteorology and Climatology 3 Credits

Definitions, concepts and scope of meteorology and climatology. Recap of weather and climatic elements and their metrics. The importance of atmospheric condition and dynamics to physical and human geography. The relationship between pressure and winds and planetary circulation; climatic classification;

climate variability and climate change; global scale climate change: planned and inadvertent weather modification; analysis of climatic data and weather forecasting; and the influence of climate on man's activities. Special attention is given to the climate of Kenya and the Eastern African region. Field trip arranged as required. Three lectures and one three-hour laboratory per week. *Prerequisite: GEOG 211.*

GEOG 433 Application of GIS in Telecommunication **3 Credits**

Telecommunications is a thriving technology and business, accounting for a significant percentage of technical advances and revenue around the globe. GIS has emerged as a crucial tool in the telecommunications field for maintaining existing entities, planning for additional ones, and for gaining an advantage in this very competitive marketplace. This course exposes students to the various applications and uses for GIS in the telecom arena by breaking down the miscellaneous telecom requirements into GIS components and technological solutions. This course emphasizes specific telecom technology application requirements and allows students, through hands-on-Practical work, to discover the power of GIS in delivering superior telecom solutions. This course also focuses on OSP/ISP applications and solutions, network connectivity issues as well as the exploding future of wireless technology.

GEOG 435 Applied Geomorphology **3 Credits**

The student is introduced to the historical development and scope of applied geomorphology; application of geomorphological principles to land morphology, land systems, land capability classifications, resource assessments and management; Geomorphological resource mapping and mapping tools. Geomorphology and the environment: structural geomorphology, geobotany. Geomorphology in site investigation and site planning, geomorphology in civil engineering. Field studies are an important component of this course. *Prerequisite: GEOG 328.*

GEOG 436 Application of GIS in Urban and Rural Land Use Planning **3 Credits**

This course will enable students acquire skills to build and maintain spatial (geographic) databases and analyze land resource data, plan and design land development projects within a community context, and prepare presentation graphics including 3D visualization of urban and rural spaces. It is designed as an introduction to this subject for students in the fields of urban and rural planning, including transportation planning, housing and neighborhood planning, environmental, hazard and emergency management, public health, crime, and more. Learners will understand the sensory and cognitive relationships between people and their physical environment. They need to know how people's needs, values and aspirations can best be accommodated in the designed environment. Three major computer software technologies including GIS (Geographical Information Systems), CAD (Computer Aided Design) and Presentation Graphics will be learned using case studies and actual land development projects.

GEOG 440 Advanced Air-Photo Interpretation and Remote Sensing **3 Credits**

This course emphasizes on the application of aerial photography and Remote Sensing in the study of natural resource mapping and evaluation; principles and methodology of aerial photographic surveys in geomorphology, ecological studies and human settlement. Remote sensing as a technique for earth's resource assessment: The principles, EMS, interaction, image processing,

RS systems and RS of earth's features. The GIS connection. Three lecturers and one three-hour laboratory per week. Field trip is Mandatory *Prerequisite: GEOG 323.*

GEOG 448 Application of GIS in Landscape Architecture **3 Credits**

In this course students will obtain theoretical knowledge of specialized CAD/GIS systems within the Landscape Architecture, will master the process of digital terrain/landscape modeling, and will be able to analyze the DTM and to create a conceptual landscape model. They will achieve a basic knowledge and skills for practical usage of terrestrial laser scanning and close-range photogrammetry to landscape model acquisition. The course is based on application of a specialized software. The teaching process includes: Input data collection (vector and raster data) for digital landscape modeling of specified case study; CAD-modeling and GIS site-analysis of the area of interest; Computer-aided Conceptual Landscape Modeling; and Statical and dynamical representation of digital landscape model.

GEOG 449 Application of GIS in Disaster Management **3 Credits**

Individuals and organizations responsible for emergency management use many tools to save lives, reduce human suffering and preserve economic assets before, during and after a catastrophic event. Correct and timely information is a critical part of any successful emergency management program. A geographic information system (GIS) can provide that sort of information. GIS can be part of the solution to many emergency management problems. This course will help the students to identify emergency management problems with spatial aspects appropriate for GIS, outline an effective GIS process for collecting and analyzing spatial data for emergency management problem-solving, and evaluate the costs of institutionalizing GIS as an emergency management tool in terms of staffing, training, data collection, hardware and software.

GEOG 450 Selected Topics in Geography **2 Credits**

A special topic or course of study is chosen, under the supervision of the lecturer concerned and/or chairman of the department of Geography. The course is open only to geography majors and minors.

GEOG 451 Application of GIS in Environmental Management **3 Credits**

This course is intended to introduce students who have already studied the principles of geographical information systems (GIS) how to utilize GIS tools in environmental management. Environmental applications require specific skills on the part of the GIS professional. Such skills include familiarity with the sources of spatial environmental data and their relative strengths and weaknesses. Specific analytical skills are also required, such as the ability to analyze river network data and to handle digital elevation models. The course also explores how GIS can be integrated with EIA and may be used to support decision-making.

GEOG 455 People, Land and Food **3 Credits**

Capacity of the world, and the various parts, to feed itself; representative studies of agricultural; systems in different regions of the world in relation to differing natural and cultural milieu; impact of different agricultural systems on environment; problem of drought; food shortages; famines in East Africa and selected regions of Africa. Recommended for students with emphasis in Agricultural geography and applied land use and potential.

GEOG 458 Intelligent Transportation Systems 3 Credits

This course presents the fundamental concepts of Intelligent Transportation Systems (ITS) to students with interest in engineering, transportation systems, communication systems, vehicle technologies, transportation planning, transportation policy, and urban planning. ITS refers to information and communication technologies, as applied to transportation infrastructure and vehicles, that improve transportation safety, productivity, environment, and travel reliability. With accessibility of mobile devices, ITS applications, such as trip planners, help travelers make informed travel choices. ITS is an international program intended to improve the effectiveness and efficiency of surface transportation systems through advanced technologies in information systems, communications, and sensors. In addition to technology discussions, this course will include topics related to policy, economics, security, as well as, urban and rural planning.

GEOG 464 Application of GIS in Public Health 3 Credits

This course covers applications of Geographic Information Systems (GIS) and remote sensing in public health and describes how these tools can be used to explore connections between people, their dynamic physical and social environments, and their health. The materials covered will provide an introduction to geographic methods, GIS tools and a unique framework from which to understand health outcomes and develop public health strategies to reduce disease and improve the public's health. More specifically it will provide an introduction to basic GIS concepts and an overview of the most common geographic methods utilized in public health and epidemiology for mapping and analyzing geographic variation in health events, health disparities, risk factors, and health services. Selected case studies will be presented in order to highlight principles, methods, and techniques. Hands-on experience will be gained through laboratory exercises and real-world applications. Laboratory exercises will be completed using ArcGIS.

GEOG 467 Application of GIS in Archeology 3 Credits

This course will serve as an introduction to archaeological applications of GIS technology and data management and analysis. Students will learn how to compile, transform, analyze and present sources of archaeological and historical data, and will utilize this information in GIS for cultural resources interpretation and management.

GEOG 469 Application of GIS in Climatology 3 Credits

This new course introduces the underlying principles and methods of Geographical Information Systems (GIS). It examines the processes involved in the capture, storage, manipulation, analysis, presentation and output of digital geographical data in a GIS and provides opportunities for the development of practical skills in processing climatological data using a leading Open Source GIS software package, Quantum GIS.

GEOG 470 Demography 3 Credits

The aims of this course are firstly, to introduce to the student the source of demographic data and their evaluation and adjustment. Secondly, to introduce to the student the measurement techniques for the analysis of demographic data relating to population composition, fertility, mortality, migration and population projections. *Prerequisite: GEOG 315 or permission of instructor*

GEOG 472 Application of GIS in Agriculture 3 Credits

Principles and application of Geographic Information Systems (GIS) technologies with emphasis on the use of GIS for collecting, storing and analyzing spatial data associated with agricultural. GIS software techniques are developed using an interactive/ inductive learning process. Students will collect and analyze data to complete a research project using GIS to answer questions related to an agricultural topic.

GEOG 482 Geographical Practicum 3 Credits

Practical experience in geography and /or environmental resource management themes at an approved organization. A written report on the personal experiences and evaluation program or project in which the student is attached to will be required, besides the immediate supervisor's assessment of the student's abilities and aptitude. Students register for at least 560 clock hours. Open to senior students only. *Prerequisite: Consent of instructor responsible for supervision.*

GEOG 485 Application of GIS in Tourism 3 Credits

This course concentrates on spatial information systems and their use in tourism management. The GIS-technology is a fundamental part of the course. During the course GIS is used as a tool for exercises on tourism development, planning and marketing.

GEOG 486 Application of GIS in Criminal Justice 3 Credits

This course covers the fundamentals of Geographic Information System (GIS) technology and how it is being applied in the field of Criminal Justice. Students will learn the processes to collect, organize, analyze and display geographic data obtained from sources such as address and coordinate geocoding, GPS, CD-ROM and World Wide Web sites, however, the emphasis of the course will be on data preparation, analysis and presentation. Each student will complete a series of lab exercises that illustrate the typical steps in a GIS project and demonstrate competence in selected aspects of crime analysis. The course will culminate with students carrying out their own GIS Crime Analysis Project and presenting their results. ESRI's ArcGIS software will be used for the laboratory portion of the course.

GEOG 488 Public Administration Applications of GIS 3 Credits

The course is a basic introduction to information technology with an emphasis on public administration. The course is divided into three parts: a) Computer, software and network basics; b) information infrastructures--their structures characteristics, applications, policy issues, and their implications on the way we work and interact with the public; and, c) demonstrations of and discussions about new public sector applications.

GEOG 493 Application of GIS in Conservation Biology 3 Credits

Students in this course will gain both field and Practical experience in the uses of GPS (Geographical Positioning Systems) units and GIS (Geographic Information System) software. Habitat loss, global climate change, and human disruptions, such as pollution and deforestation, are threats to wildlife biodiversity and can cause fragmentation and extinction. GIS technology is an effective tool for managing, analyzing, and visualizing wildlife data in order to target areas where conservation practices are needed. Habitat geospatial analysis is an important key to understanding the health of a species in the wild. Monitoring change in wildlife habitats is feasible with ESRI's suite of ArcGIS

software, a tool for managing, analyzing, and depicting statistical and geographic data. The relationship of these new technologies to the fields of conservation biology, will be discussed through readings in the primary literature and experienced through class projects.

GEOG 495 Geographical Attachment 3 Credits

Practical experience in geography and/or environmental resource management themes at an approved organization. A written report on the personal experiences and evaluation program or project in which the student is attached to will be required, besides the immediate supervisor's assessment of the student's abilities and aptitude. Students register for at least 560 clock hours. Open to senior students only. *Prerequisite: Consent of instructor responsible for supervision*

GEOG 498 Independent Research Project in Geography 3 Credits

This is directed individual study and research by students who have demonstrated ability, desire and responsibility necessary to pursue an independent research project on a topic of his or her interest. It exposes students to independent field research in preparation for post graduate studies. A topic for investigation is selected with the approval of the instructor in consultation with the chairperson of the Department. The course ordinarily spans one semester but may if need be, spill over to another semester – indicative of the amount of input and quality of work expected of each student. *Prerequisite: GEOG 410.*

GEOG 499 GIS in Public Administration 3 Credits

The course is a basic introduction to information technology with an emphasis on public administration. The course is divided into three parts: a) Computer, software and network basics; b) information infrastructures--their structures characteristics, applications, policy issues, and their implications on the way we work and interact with the public; and, c) demonstrations of and discussions about new public sector applications.

HIST 106 Sources of African History 3 Credits

The course discusses Africa as an historical entity; Archaeological evidence and dating methods; linguistic evidence; oral tradition; Anthropology, written sources in European and Arab languages; Biases and abuses of historical evidence; reconstruction of African history and theories of African history.

HIST 111 Concepts of World Civilizations Credits

This is a survey course which examines the origins and development of the world civilizations from the earliest beginnings to 1800. Particular attention is paid to: Egypt, China, India, Greece, Rome, and Mesopotamia, Inca, Aztec and Mayan civilizations. Early medieval European political, social, economic and cultural institutions, as seen through literary and historical records will also be examined and studied from a historical perspective. This course is not open to seniors.

HIST 119 Issues in Development Studies 2 Credits

The Course is intended to examine major historical issues in development, philosophy, theory and practice in developing and developed countries. Emphasis is placed on economic growth and development, planning, policies, technology, and resource management.

HIST 120 History of Kenya I to 1900 3 Credits

This course surveys pre-colonial history of Kenya from the earliest times to the introduction of colonial rule in the region.

Thus, it covers the peopling of Kenya and how this process was affected by geographical and ecological factors, as well as evolution of the present-day Kenya societies. Emphasis will be placed on the development of political, economic, social, and religious institutions. Inter-ethnic relations and interactions, and wider contacts with the outside world are studied as a prelude to the advent of European imperialism and colonialism.

HIST 121 History of Kenya II since 1900 3 Credits

This course covers the history of Kenya as a colony from 1900 to the present. After establishing the necessary background and tracing the advent of European colonial rule, the course looks at the response of African societies of Kenya to the planting of the colonial state, including its economic policies, political and educational systems as well as colonial administration. The colonial rule itself is studied and analyzed in terms of its social, economic and political impacts. *Prerequisite: HIST 120 or permission of instructor*

HIST 130 History of Africa I to 1885 3 Credits

The aim of this course is to provide the students with survey of general but broad themes in African History from the earliest times to 1885. Topics to be covered include: Sources of Africa History; the late Stone Age; the spread of iron working; migration and settlement of early African societies; man's discoveries and adoption of metallurgy, i.e. use of iron weapons, fire and tools and their revolutionary consequences; the development of agriculture and its impact on African Societies; rise and development of early African civilizations; the spread of Christianity and Islam and their impact on African societies; the role of European mercantilism and the impact of mercantilism on commerce and trade in Africa; the role of Arabs in Africa; slave trade and slave traders and external invasions as well as African contributions to the wider world. The course will also examine the factors which contributed to the decline of African civilizations. This course is not open to seniors.

HIST 131 History of Africa II from 1885-1945 3 Credits

This course examines major themes in African History from 1800 to World War II. Focus is on the impact of the slave trade on African societies; European imperialism; the scramble for partition of Africa; colonial policies; European settlement and colonial economies, colonial education system; African reaction to the imposition of colonial rule as well as general problems in the History of colonial Africa to 1945. *Prerequisite: HIST 130.*

HIST 200 History of the United States I to 1877 3 Credits

This course familiarizes students with the history of the United States of American from the earliest settlement to 1877. It will be a broad and comprehensive survey of the development of the U.S.A. as a nation and its various institutions from discovery and exploration of North America to the Civil War and Reconstruction. The course develops in some detail various historical issues of interest - North America conquest, colonial rule and American War of Independence, the founding of a new nation; slavery; frontiers; immigration; the role of machines and industries in economic development; regional, cultural and ethnic diversity and national integration; emergence and development of the two-party system in the United States since the American War of Independence, Manifest Destiny and its impact on the native Americans.

HIST 201 History of the United States II since 1877 3 Credits

This course acquaints students with the history of the United States from 1877 to the present as a field of study and research. The course examines United States contemporary issues in historical perspective with particular emphasis on the development of modern political, economic, social and educational institutions as well as technological and cultural forces which have made the United States distinctive. The development of the United States ethnicity, modern imperialism, and her relationship with other countries in the Western hemisphere are considered within the context of specific historical periods. Historical issues and ideas about the U.S.A. in relation to the past, present and future are also studied. *Prerequisite: HIST 200 or permission of instructor.*

HIST 203 Introduction to African History to 1884 3 Credits

This course is a survey of African history during the pre-colonial period. Topics covered include: overview of the geography of Africa; human evolution and the peopling of Africa; Hunting and gathering; origins of early agriculture and metallurgy production; distribution and exchange system: short and long distance trade; state formation, examples of African states and ancient civilizations in Africa: Egypt, Axum, Meroe, Ethiopia, Mwanamutapa, etc.; Islam and Christianity in Africa; Africa's relations with external world up to the end of 19th century; the coming of Europeans to Africa.

HIST 204 Introduction to African History Since 1884 3 Credits

The course seeks to examine the history of Africa since the advent of European imperialism in the 19th century. This includes: European old and new imperialism; Scramble for and partition of Africa; Reactions of Africans: resistance and collaboration; Colonial systems of administration; various features of colonial economy; peasant and settler production, mining, trade and manufacturing, infrastructure; Nationalism and the decolonization process; Challenges experienced in post-independence Africa; Africa and globalization; the church in African development; the role of the church in dealing with challenges/emerging issues facing Africa.

HIST 213 Themes in World History to 1500 3 Credits

The course defines history and civilization and seeks to describe antiquity, the ancient life, Egyptian civilization, Mesopotamian civilization, the ancient Greek and Roman civilizations, the middle Ages, the emergence of Christianity, the Byzantine Empire; the origin and spread of Islam, Hinduism and other major world religions and their impact on world civilization

HIST 217 History of Latin America 3 Credits

A survey of the components of Latin American History from the early period to the present will be attempted. Considered are geopolitical back-ground of Latin America, the people, and the development of Latin America civilizations the Mayan, Inca, and Aztec, for example. The backgrounds of Spanish and Portuguese old imperialism, conquest, slavery and the wars of independence will be explored. Major themes in modern Latin American history in the 19th and 20th centuries will also be explored, examined and discussed, with emphasis on economic, political and social status of African-Americans and the native Americans, as well as on the struggle for equality in economic spheres. Critical consideration of the United States foreign policy and imperialism in the Caribbean, Central America, and South America will be made.

HIST 225 History of Europe from 1789 to 1919 3 Credits

This course is a study of the historical development of Europe, including economic, social, political and technological changes, the French Revolution, the Napoleonic Era, the Congress of Vienna, the Concert of Europe, rise of nationalism, unification of Germany and Italy, and the First World War, as well as its causes and aftermath.

HIST 227 History of Europe from 1919 to 1990 3 Credits

Development of science and technology, spread of Fascism and Communism, World War II and its causes, the Cold War, Western European integration, the establishment of the Soviet Bloc in Eastern and Central Europe, and the impact of Gorbachev's Revolution in the region will be covered. *Prerequisite: HIST 225, or permission of instructor.*

HIST 230 History of the USSR from 1917 to 1991 3 Credits

Development of the Soviet Union since 1917 will be examined. Special attention is given to the following topics: Growth of the Russian Revolutionary Movements; the revolution of 1917; the development of the communist state under Lenin, Stalin, Khrushchev and their successors; Soviet economic and foreign policies and the role of the USSR in the contemporary world. The impact of Gorbachev's revolution, including "perestroika" and "glasnost" will also be explored, studied, analyzed, and discussed in historical perspective.

HIST 305 Fundamentals of Historiography 3 Credits

This course focuses on the meaning, role, and functions of historiography; the challenges of writing history; the significance in the development of meaningful philosophy of history and historical methods. Historiography is a general framework for understanding theory of history. Identification of the great historians and their contributions to the development of ancient and modern histories will be considered. A glimpse into regional historiographies will be attempted.

HIST 313 Themes in East African History Since 1890 3 Credits

This course is a systematic study of the history of East African since 1890, emphasizing major topics within chronological framework. Topics for discussion include: African societies and their institutions, Arab and European imperialism, colonial rule and policies; land issues; peasantry and settler economies; transformation in the 20th century; rise of nationalism, struggle for independence; post-independence and contemporary East Africa. *Prerequisites: HIST 130 and HIST 131 or permission of instructor.*

HIST 314 History of North Africa since 1800 2 Credits

This course considers the historical development of North Africa (Egypt, Maghreb, Sudan and their environs), with emphasis on major political, social, and economic changes, as well as North Africa's experience with modernization from the beginning of the 1890s to the present. Religious controversies, colonialism, rise of nationalism, struggles for independence and revolutionary movements in Northern Africa will also be considered. *Prerequisites: HIST 130 and HIST 131 or permission of instructor.*

HIST 315 History of West Africa since 1800 2 Credits

This course examines major historical developments in the history of West Africa from 1800 to the present; emphasis on

political, cultural, economic and social changes; indigenous trade and commercial relations with foreigners; effect of slave trade, contact economies, European colonization and the impact of Islam on West African societies, rise of nationalism and struggles for independence; post-independence and contemporary West Africa. *Prerequisites: HIST 130 and HIST 131 or permission of instructor.*

HIST 316 History of Central and Southern Africa **2 Credits**

This course surveys the history of Central and Southern Africa. It traces the evolution and development of African societies from the pre-colonial period to the present. Particular attention is paid to the forces which have contributed to the political, social and economic changes in these two regions from the 15th century onwards. These forces include European incursions, particularly the Portuguese, the Dutch or the Boers, and later the British. The ancient empire of Central and Southern Africa: the Kingdom of Kongo, the Kasanje Kingdom, the Lunda Empire, the empire of Luba, and Zimbabwe will be examined in historical perspective. Issues and problems arising from European imperialism and colonialism, the Dutch ideology, social and economic racism as well as African reaction to the European colonial rule will also be examined. Finally, the course will critically examine contemporary political and economic issues, and the factors which led to the rise and development of modern African nationalism which culminated in revolutionary liberation movements in Central and Southern Africa. *Prerequisites: HIST 130 and HIST 131 or permission of instructor.*

HIST 333 Economic History of Africa **3 Credits**

This course examines major trends in the evolution of subsistence economies, agriculture, industries, commerce and trade; the role of natural and human resources, and how the early man utilized these resources in economic spheres. Emphasis will be placed on the factors of production, land tenure and land use, spread of foods, short and long- distance trade and trade routes as well as Trans-Atlantic and Trans-Saharan trade. The emergence of herders, peasants, farmers and pastoralist communities; pre-colonial commerce and exchange systems will also be studied and analyzed in an attempt to determine their impact on the development of political, social and economic institutions as well as their values.

HIST 345 Methods of Historical Research **3 Credits**

The course examines history as a discipline; historical methods; history and social sciences; the nature of historical research; identification of historical problem; sources of history; collection of evidence; analysis and interpretation of data; objectivity in data interpretation; report writing and research ethics.

HIST 380 Philosophy of History **3 Credits**

The course examines the relationship between history and philosophy; the nature of historical knowledge; the speculative and analytical philosophy of history; the positivists and relativist debates on history; historical explanation; objectivity and subjectivity in history; the nature and function of narrative in historiography; problems of relevancy and importance in historical judgment; causation in history; scope of historical inquiry; history as re-enactment of past experience and history as progress; emergence of philosophy of history from the Ancient Greeks is also discussed.

HIST 410 Introduction to Environmental History **2 Credits**

The beginnings of the cosmos and its components: theories and facts; the galaxies, the solar system, the earth and its life support systems; human occupancy, interaction with and mutual modification with the environment over millennia; the major technology dispensations; change in societal worldview of the environment and therefore its welfare will be examined.

HIST 411 Selected Topics in Modern African History **3 Credits**

This course examines historical development in modern African history since the end of the First World War to the present. Emphasis is placed on the impact of the First and Second World Wars on Africa generally; the emergence of proto-nationalist groups and elite political groups, modern political parties, masses and modern African nationalism. The impact of Pan-Africanism and African Negritude on African nationalism will also be examined in this course. Differing discussions and evaluations of the problems bequeathed by colonialism will be examined in historical perspective. Contemporary issues in post-independent Africa such as military coups and military rules, regionalism, tribal clashes, civil wars, ethnicity and underdevelopment, diplomacy and armed conflict, foreign aid and foreign debts; Southern Africa, and neo-colonialism will also be considered *Prerequisites: HIST 130 and HIST 131 or permission of instructor.*

HIST 415 History of Science and Technology **3 Credits**

A study of historical and philosophical development of sciences and technology traced from the ancient times to the present. Examples will be drawn from ancient Africa, Asia, the Americas and Europe and in particular from Egypt, Mesopotamia, China and Greece. The importance of science and the impact of technology on society from the industrial revolution to the present will also be considered.

HIST 421 Imperialism, Colonialism and Nationalism **3 Credits**

This course is intended to give students an in-depth comparative study of the theory and practice of imperialism, Colonialism and nationalism in Africa and other selected areas of the Americas, the middle East, Asia and Europe. The theory, stratagems and goals of imperialism are studied, analyzed and interpreted to provide an understanding of the impact of imperialism and colonialism on the rise and growth of modern nationalism in the studied areas with emphasis on the continent of Africa.

HIST 425 History of Conflict and Diplomacy in Africa from 1960s **3 Credits**

This course offers an examination of diplomatic relations between and among states of Africa with special emphasis on causes and effects of political and armed conflicts on these regions since 1960s. An examination on how the conflicts have been and are being solved shall be done. Examples of these conflicts will be drawn from Angola, Liberia, Zaire (D.R. Congo), Nigeria, Sudan, Somalia, Ivory Coast, Ethiopia etc.

HIST 440 History of Political Ideas **3 Credits**

The course examines: The Political theories and thinkers in Africa; Asia, Greco-Roman world; medieval political thinkers – e.g. St Augustine, St Aquinas; political thinkers in early modern Europe; political thought in the enlightenment era; 19th Century political thinkers e.g. Marx and Lenin; contemporary political thought.

Democracy-origins and development, principles importance and types of democracy, Challenges to democracy, Elections, electoral processes and their challenges; Historical development of human rights; classification and characteristics of human rights.

HIST 445 Historical Research Methods 3 Credits

This course is designed to provide the students with a variety of skills and approaches to historical research methodologies. Experiences will be gained in oral history researches, archaeological methods, collection of data from written sources, and historical interpretations. Every student in this course will be required to take part in a research project that seeks to establish primary evidence for historical facts. Open only to upper juniors and seniors. *Prerequisite: ENGL 105.*

HIST 447 History of International Relations 3 Credits

The course discusses the historical origins of international organizations; structures, functions, objectives of IOs; types of international organizations; case studies of League of Nations, UN, OAU and AU, Non Aligned Movement, ECOWAS, European Union, East African Community and Arab League; their ability to solve Issues facing the modern world etc. The Christian factor in IOs.

HIST 450 Topics in History of Post-Independent Kenya 2 Credits

This course touches on issues and events that have shaped Kenya after being freed from the colonial master: the prelude to independence; the young nation- the first black government structure and operations and expectations. Kenya between the late 60's and the 70's: a period of a youthful active nation. The course will also focus on the transition from the first presidency; the second liberation struggle; Kenya in the late 80's through the 90's; Contemporary issues such as voices of dissent; spirit of political tolerance/intolerance; the evils of tribalism and tribal clashes; environmental problems and national development philosophies; target and inequities; Kenya and the world community. *Prerequisites: HIST 120 and HIST 121 or permission of instructor.*

HIST 451 Topics in History (outside Africa) 2 Credits

Special topics are chosen by the instructor, with or without consultation with the students, on issues of contemporary historical concerns. The issues are those either scarcely or not at all tackled in the array of courses offered in the history curriculum. The course is open to senior History students who have demonstrated the ability carry out intense study under minimum supervision of the instructor. A minimum of five (5) topics may be studied and in cases where they are less, then great depths of coverage and insights by the student are expected.

HIST 455 African Diaspora and Pan-Africanism in the Americas 3 Credits

The course considers the origin and development of African-American populations in the Americas from the 16th century to the present. The main purpose of this course is to promote a better understanding of the Americas' past by developing an increased interest and awareness of the history of African-Americans, their problems and accomplishments. Special emphasis will be placed on African-Americans of the United States of America. Since the history of African-Americans is an integral part of the American past, it must be examined within the context of that past. The course will cover the Caribbean, Central America, South America and Canada in general and the United States in particular. The

course is designed to give students a broader and more insightful knowledge about African-Americans in the Western hemisphere, to re-introduce them to those aspects of African-American history which have been obscured during a long period of deliberate neglect by many Western Writers, and to arouse the interest of the students in serious and systematic study of African-American history and literature, as well as increasing their sensitivity to the achievements and contributions of the African people in the development of the Americas. *Prerequisites: HIST 200 and 201 or permission of instructor.*

HIST 475 Intellectual History of Africa 3 Credits

An intensive examination of the development of social, economic and political ideas instrumental in shaping the thought of African thinkers as well as their contributions to the changing African attitudes and opinions. Emphasis will be placed on the effect of these ideas on the minds, practices and traditions of Africans, particularly as they relate to Africans, their institutions, cultures, work, and economic relationships.

HIST 490 Independent Study in History 3 Credits

This is directed individual study and research in by students who have demonstrated ability, desire and responsibility necessary to pursue an independent research project on a topic of his or her interest. A topic for investigation is selected with the approval of the instructor in consultation with the chairperson of the Department. The course ordinarily spans one semester but may if need be, spill over to another semester - indicative of the amount of input and quality of work expected of each student. *Prerequisite: HIST 445 or permission of instructor.*

KISW 103 Introduction to Kiswahili 0 Credit

This course introduces students to Kiswahili language, vocabulary and grammar. Topics: composition writing, punctuations, and comprehension. There are 2 lectures each week. *Prerequisite: Direct placement as per the Kiswahili Placement Test results.*

KISW 105 Beginning Kiswahili I 3 Credits

This course introduces students from non-Kiswahili Speaking countries to basic communication skills in Kiswahili. The course creates an opportunity for the students to be able to ask questions, make requests and name things in Kiswahili. Topics: A Brief History of Kiswahili; the language concept; speaking skills; listening skills; writing skills; and vocabulary. The course will enable students to communicate to some extent with students from Kiswahili Speaking countries and to be able to understand some concepts.

KISW 110 Introduction to the Study of Language 3 Credits

This course is designed for Kiswahili students; it examines theories of the origin of human language and typology. Students are introduced to linguistic concepts, both prescriptive and descriptive, as well as the different levels of language: phonology, morphology, syntax and semantics, sociolinguistic, psycholinguistics, applied linguistics and stylistics. Other topics include: role of linguistics in neighboring disciplines, applications to practical fields such as lexicography, orthography, translation, and language planning. Language varieties: dialects, pidgins, and creoles; standard language. Bilingualism and multilingualism etc.

KISW 111 Historical and Modern Development of Kiswahili 3 Credits

This course traces the History of Kiswahili Language from pre-colonial, colonial, present and future development of Kiswahili as

a Bantu Language. Topic: Language standardization and policies in Africa, factors affecting the development of Kiswahili, changes in Kiswahili phonology, syntax, semantics and the lexicon. Students will be required to participate in an Educational trip to Mombasa, Kilifi and Malindi.

KISW 114 Language Skills In Kiswahili 2 Credits

This course emphasizes on fundamentals of grammar with elements of conversation, organs of speech, sound production, comprehension and conversational skills. Other writing skills include: research papers, official letters, and minutes of a meeting, book reviews and critiques, editing skills, composition, summary and essay.

KISW 120 Phonetics and Kiswahili Phonology 3 Credits

This course focuses on the application of phonetic science to the process of acquiring and the teaching of proper pronunciation. Topics: comparison between phonetic and phonology, articulator, acoustic and auditory phonetics, IPA and its relevance to Kiswahili language, Kiswahili phonemes, Kiswahili syllables, phonology, stress, intonation, pitch and rhythm. Other topics: phonological processes and rules as well as practical exercises in phonetic transcription. *Prerequisite: KISW 110.*

KISW 205 Introduction to the Study of Literature 3 Credits

This course introduces the learner to meaning, scope and genres of Kiswahili literature. Topics include genres, plot, conflict, narration, characterization, and stylistic devices. This course equips the learner with knowledge on periodic theories in the development of Kiswahili literature, contextual genres, textual analysis, practical analysis of all genres and emerging issues in Kiswahili Literature like globalization, ICT etc.

KISW 210 Theory and Practice of Translation and Interpretation I 3 Credits

This course introduces the students to the concept, objective, skills and theory of translation. Topics: structural characteristic that affect translation of spoken and written texts, cohesion and coherence of texts and comprehension. Students will be expected to translate passages, instructions, reports and formal documents from English to Kiswahili.

KISW 225 Kiswahili Morphology and Syntax 3 Credits

This course has two sections: Morphology and Syntax. Under Morphology the course examines Kiswahili morphemes, word structure, word forms as well as the processes involved in their realization. Topics include Morpheme and allomorph; affixation and its role in Kiswahili word formation techniques: Clipping, compounding, borrowing and derivation; parts of speech and classification of nouns. Under syntax the course examines syntactic structure of the Kiswahili sentences, markers of paratactic and hypotactic structures and representing the Kiswahili sentence using tree diagrams.

KISW 240 Theory and Practice of Translation and Interpretation II 3 Credits

This course will explore the theory and practice of translation from Kiswahili to English and English to Kiswahili. Theoretical investigation will consider translation as an activity of comparative stylistics and an art of communication. Topics: Ambiguity in translation, aims, levels types, process of translation, relationship

between language and culture, translation procedures and types of contexts i.e. structural, cognitive and pragmatic. *Prerequisite: KISW 210.*

KISW 265 Language Skills in Kiswahili II 3 Credits

This course exposes students to Kiswahili language as an instrument of expression and a tool of communication. Topics: types of communication, language contact i.e. code-switching, sound and semantic shifting, language variation, figures of speech, punctuation, documents, messages, submissions, minutes, press releases, newspaper articles, public information, pamphlets/leaflets, speeches, vote of thanks, memoranda, letters and book reviews, speech making, and interviews. General techniques of factual and fictional writing, existing communication theories and problems, language and culture in relation to communication.

KISW 270 Kiswahili Short Stories 3 Credits

This course introduces the concept of short story, its history and analyzes its structure and rules. It also deals with traditional short stories i.e. tales, fables, myths, aetiological stories, tricksters and legends and their influences on the modern short story- including the following topics: thrillers, detectives, romantic and didactic stories. Short stories by selected authors will be identified and analyzed structurally, thematically and stylistically. *Prerequisite: KISW 205.*

KISW 285 Second Language Learning 3 Credits

This course is designed to expose the student to the approaches in the study of second language learning and their application in Kiswahili. Topics include: Major approaches to the study of Second Language learning and their application to the learning of Kiswahili as a second language. Contrastive analysis, error analysis, inter-language and universal grammar. Research techniques in the investigation of Second Language Learning such as data elicitation, data quantification and analysis etc.

KISW 310 Stylistics in Kiswahili 3 Credits

The course introduces the concept of language as a tool of communication and examines the different schools of thought on style and stylistics. Topics: theories and approaches, ethnography, semantics, art, concept and levels of style and stylistics in relation to sociolinguistics, sociology and literature. The concept of style is analyzed linguistically and literary. Other topics: literary-genres, themes, situations and contexts of communication; Language use in registers and fundamental skills in communication. *Prerequisite: KISW 265.*

KISW 315 Theories of Literary Criticism 3 Credits

This course introduces the theories of literature and focuses on literary devices in different genres. The topics explored in this course include literary theories such as structuralism, formalism, realism, pragmatism, Marxism, feminism, psychoanalysis, new historicism, post colonialism, African-Americanism, queer theory, eco-criticism etc. ; laws of plot, conflicts, setting, narration, theme, figurative language, prosody, symbolism, and movements and style in oral and written literature.

KISW 320 Sociolinguistics in Kiswahili 3 Credits

The course defines the concepts and scope of sociolinguistics, macro linguistics and micro linguistics. Topics: language variations, monolinguals, bilingualism, multilingualism, diglossia, gender and gender stereotypes, code-switching and code-mixing, interference, borrowing, Sheng, language maintenance and shift, language planning, standard language and the impact of standardization, language and education, and current language planning policy in Kenya. *Prerequisite: KISW 220.*

KISW 350 Contemporary Kiswahili Novel 3 Credits

The course is an in-depth study of the theory, origin and development of Kiswahili novel and Play as literary genres. Topics: the transition from oral literature to Novel and Play; the influence of oral literature on written novels; types of Kiswahili novels and analysis of Kiswahili novels and literary movements/theories in the novel. Emphasis is placed on such authors as S. A. Mohamed, Mohamed S. Mohamed, Shafi Adam Shafi, Katama Mkangi, Rocha Ken Walibor Chimera, John Habwe, Kithaka wa Mberia, E. Hussein, among others. *Prerequisite: KISW 205.*

KISW 360 Oral Literature in Kiswahili 3 Credits

This course introduces students to oral literature by examining its genres: tales, fables, parables myths, legends, epics, proverbs, riddles, songs and poems. Topics: performance, audience, improvisation, elements of poetry, songs and musical accompaniment, occasions, ceremonies and initiations. The theoretical and methodology problems of oral literature as well as the research methods employed in its study are emphasized. *Prerequisite: KISW 205.*

KISW 365 Contemporary Kiswahili Novel and Play 3 Credits

The course is an in-depth study of the theory, origin and development of Kiswahili novel and Play as literary genres. Topics: the transition from oral literature to Novel and Play; the influence of oral literature on written novels and plays, types of novels and plays, analysis of Kiswahili novels and plays and literary movements in the two genres. Emphasis is placed on such authors as S. A. Mohamed, Mohamed S. Mohamed, Shafi Adam Shafi, Katama Mkangi, Rocha Chimera, John Habwe, Kithaka wa Mberia, E. Hussein, among others. *Prerequisite: KISW 205.*

KISW 370 Contemporary Kiswahili Play 3 Credits

The course is an in-depth study of the theory, origin and development of Kiswahili Play as literary genres. Topics: the transition from oral literature to Play; the influence of oral literature on written plays; types plays; analysis of Kiswahili plays and literary movements in the two genres. Emphasis is placed on such authors as Kimani Njogu, Pauline Keya, Kithaka wa Mberia, S.A Mohamed E. Hussein among others. *Prerequisite: Kiswahili Novel.*

KISW 375 Comparative Literature in Kiswahili 3 Credits

This course undertakes a comparative analysis of different literary works in each genre. Topics: regional comparison of authors from East Africa, historical comparison of authors from Kenya, Uganda and Tanzania before and after independence. The following authors, among others, are compared: Chacha, Chimera, Kitsao, Kezilahabi, Mazrui, and S. A. Mohamed. *Prerequisites: KISW 310*

KISW 425 Senior Seminar in Kiswahili 3 Credits

In this course, each student is given an opportunity to write a special research paper of between 9,000 and 10,000 words. Students will choose topics in the area of linguistics, language and literature subject to the approval of department's assigned supervisor. Topics include Research problem, collecting and analyzing data, thesis writing; preparation and submission of manuscripts designed for publication.

KISW 380 Theatre Arts in Kiswahili 3 Credits

This course focuses on the concept, art and history of development of theatre arts. Topics: dramatic elements in rituals, dance; choreography, stage management and adjudication

techniques, thematic and stylistic analysis of different types of plays; identification and critical appraisal of the agents of disseminating theatre arts in Kenya. Students will be required to take an educational field trip to any print and electronic media houses. *Prerequisite: KISW 365.*

KISW 395 Research Methods in Language and Literature 3 Credits

The course introduces students to research methods in Kiswahili. Topics: Basic research methods, research questions, literature review, methodology, problems and issues in Kiswahili research; critical analysis of methodology and data collection devices. Other topics: choosing a topic, writing a research proposal, data collection procedures, tabulation, interpretation, analysis and presentation of research findings. *Prerequisite: All courses below KISW 395 and ENGL 105.*

KISW 410 Senior Seminar in Kiswahili 3 Credits

In this course, each student is given an opportunity to write a special research paper of between 9,000 and 10,000 words. Students will choose topics in the area of linguistics, language and literature subject to the approval of department's assigned supervisor. Topics include Research problem, collecting and analyzing data, thesis writing; preparation and submission of manuscripts designed for publication.

KISW 415 Editing Skills in Kiswahili 3 Credits

This course equips the student with editing and proofreading skills. It covers the following topics: Principles of editing, editing process, editing strategies, editing symbols, editing and the law, editing for various purposes and editing of specific documents etc. *Prerequisite: All courses below level 395.*

KISW 420 Semantics and Pragmatics in Kiswahili 3 Credits

This course explores the following topics: the scope of semantics, learning and language change, Kiswahili technical terms, lexicography and the principles of compiling dictionaries; truth conditional model-theoretic semantics; scope of pragmatics, divisions of pragmatics, functions of pragmatics, theory and practice of pragmatics, the functional approaches to pragmatics, and pragmatics and discourse analysis. *Prerequisite: KISW 395.*

KISW 422 Textual and Discourse Analysis in Kiswahili 3 Credits

This course exposes the students to the linguistic and discourse analysis of naturally occurring connected speech or written texts. Topics: organization of language above the sentence, general functions of language; transactional and interactional; the use of written and spoken texts. Other topics: Discourse theories such as Speech Act Theory, Ethnography of communication, the Cooperative Principle, Conversation Analysis and the Politeness Principle and their application in analyzing texts; conversational exchanges, exchange structure as well as language use in social contexts. *Prerequisite: All courses below KISW 395.*

KISW 425 Kiswahili Poetry 3 Credits

This course covers poetry as a genre in general and investigates the differences and similarities among contemporary Kiswahili poetry by different poets. Topics: free verse and prosody and the continuing debate on the nature of Kiswahili poetry. Different works by poets such as Shabaan Roberts, Mnyampala, Nassir, Abdilatif A., S. A. Mohamed, M. M. Mulokozi, K. K. Kahigi, E. Kezilahabi, Kithaka-wa-Mberia etc, are analyzed.

KISW 430 Creative Writing in Kiswahili 3 Credits

This course introduces students to concepts, scope, history and development of creative writing in Kiswahili. Topics: literary aspects in creative works, writing imaginative works for the stage; electronic and print media; analysis of published works, creative skills in writing composition and summaries; stylistic features in literary works and language use in different registers. *Prerequisite: KISW 205.*

KISW 440 Psycholinguistics in Kiswahili 3 Credits

The course focuses on the mental process and skills underlying the production and comprehension of language. Topics include: language, thought, and signal; speech signals and writing systems, biological foundations of language, neuro-linguistics, the brain, the abstract language system-competence and performance, language production; context, variation functions, and error e.g. slips of the tongue, ear, etc. Inter-language and universal grammar, Research techniques in the investigation of Second Language Learning etc. *Prerequisite: KISW 320.*

KISW 455 Historical and Comparative Linguistics in Kiswahili 3 Credits

This course focuses on the comparative methods of historical linguistics in Kiswahili especially the concepts and scope of comparative and historical linguistics. Topics: history and development of comparative historical linguistics, predecessors and early discoveries, the comparative method (glottochronology), lexicostatistics, language classification, reconstruction and etymology, diachronic and synchrony, origin and spread of Kiswahili dialects.

KISW 460 Language Policy and Planning 3 Credits

This course is designed to make learners aware of and appreciate the position of each language in Kenya as well as its use in the Curriculum. The students are expected to analyze Kenya's language policy and role of teaching Kiswahili, English and other African languages, analyze problems facing languages under language policies, discuss emerging issue language and their impacts on national, official and mother tongue languages. Topics: Concept of language policy and planning, process of language planning, history of language planning in Kenya, the role of English, Kiswahili, and Mother-tongue. The study of emerging languages such as Sheng and Engsh and the impact of emerging issues on the use of languages.

LITE 151 Introduction to Literary Appreciation 2 Credits

This course introduces the learner to the art of critically responding and appreciating literature as the creative and imaginative use of language. This will deepen the learner's insights into the nature of literature and its relevance to humankind. The learner is introduced to the general concepts and terminologies in literature and literary analysis. The learner understands the diverse genres of literature through a rigorous analysis of selected literary texts.

LITE 154 Introduction to Oral Literature 3 Credits

This course concentrates on unwritten literature that is realized through performance. It surveys the various aspects of the major genres of oral literature namely, narratives, songs (oral poetry) proverbs, riddles and epics. The influence of oral literature on written literature is also examined. By the end of the unit the student should be able to describe orature material from Eastern Africa, explaining its development to date; and forecast the nature of the future of oral literature study in Eastern Africa in terms of directions, opportunities and challenges in the 21st century.

LITE 159 Themes in East African Literature 3 Credits

The course is a survey of the main themes handled by major East African writers in their literary works including prose fiction, poetry and drama. Areas to be covered include themes in colonialism, cultural conflict, social transformations neo-colonialism, political upheaval, democratization, gender, among others.

LITE 165 Stylistics 3 Credits

This course is concerned with the linguistic analysis of literary texts. It involves examining the language of literary texts with a view to helping students arrive at a fuller understanding and appreciation of these texts. The course aims to help students describe such things as the literary achievement of a particular literary text and the communicative strategies employed in it. Through textual analysis, the course introduces a number of important principles such as foregrounding as demonstrated in the various forms of deviation and of parallelism that occur typically in literary texts.

LITE 168 The Short Story 3 Credits

This course is designed to introduce the student to the characteristics of the short story and to acquaint them with some of its most talented writers. During the semester we study short stories from various cultures and countries, ranging from stories written in the early nineteenth-century to those written within the last few years and to help the student appreciate short story as a genre.

LITE 210 East African Prose Fiction 3 Credits

The course covers East African fiction from the colonial to the postcolonial periods. It compares and contrasts the social ideas and the aesthetic standards of the two periods. The novels and short stories of various writers in east Africa are analyzed in detail.

LITE 212 East African Poetry 3 Credits

This course encompasses varied aspects of poetry in East Africa. It attempts to expose the learner to an extensive range of poetry by East Africans, and how these poets have given poetic expression to the East African experience. The learner will also explore distinctive features of East African poetry and recognize developments and changes that have fashioned the genre. Stylistic and thematic concerns will be surveyed in the study.

LITE 214 East African Drama 3 Credits

This course examines the development of East African drama. It studies major East African playwrights such as Ruganda, Imbuga, Hussein, Serumaga, among others. The social ideas and the aesthetic standards of the colonial and postcolonial periods are compared and contrasted. Learners use current theories to analyze selected texts.

LITE 260 Children's Literature 3 Credits

The course is designed to provide students with a foundation in children's literature and develop and deepen their appreciation of children's literature as a literary form. It examines pre-school, pre-adolescent, and adolescent written children's literature from different cultures, with emphasis on Kenyan examples. Selected texts are read and analyzed in terms of form, content, layout, and language use. Students examine folktales and fiction. Learners are introduced to relevant theoretical material and encouraged to develop independent critical responses to the texts.

LITE 346 Introduction to Literary Theory and Criticism **3 Credits**

This course introduces a student to the field of literary theory, a central component of contemporary studies in world literature. The student will gain knowledge of the various premises, methods, utility, and limitations available to him/her as a critical reader of literature. The course explores classical Greek origins of issues concerning the nature of literature and criticism, and examines major twentieth-century theories and applications. It is intended to equip students with the relevant tools of critical analysis of literary phenomenon.

LITE 347 South African Literature **3 Credits**

The course introduces the characteristic features of South African fiction written in English. The learner compares the ideological views of white, colored, and black authors in the colonial, apartheid and post-apartheid periods. The course considers major thematic and literary trends in South African fiction.

LITE 350 African American Literature **3 Credits**

The course studies oral and written literature of African American writers from the 18th century through the Harlem Renaissance, the Depression to the contemporary times, including authors such as Zora Neal Hurston, Langston Hughes, Claude Mackay, Martin Luther King Jr., Ralph Ellison, Alice Walker, Tony Morrison, among others. Students analyze major themes and study a range of genres, including prose fiction, poetry, drama, and autobiography.

LITE 348 European Literature **3 Credits**

Taking into consideration George Lukac's theory that the novels reflect the structure of historical and social reality and the Marxist view of history as a dialectical class struggle, the course examines novels and short stories, poems and plays written in periods of important social and cultural upheaval. Of particular interest will be the rise of capitalism, the ascendancy of the middle classes, industrialization and the relevance of European literature to society as we know it. The course also examines Modernism – a subversive attitude to life and art, which is usually seen as a reaction against Realism. Representative European texts are examined in terms of style and vision.

LITE 363 The African Novel **3 Credits**

The course investigates the characteristic features, thematic concerns and the evolution of the African Novel. It explores the development of the novel from authentic and indigenous African forms to contemporary forms; it also examines the blending of African themes and Western language to create the contemporary African novel. In addition, the course interrogates the role of the African novelist as social critic.

LITE 364 Women Writers **3 Credits**

This course undertakes a critical study of literature by women writers. The emphasis is on the various ways in which women's perceptions are reflected in the fiction, drama, and poetry that they have produced. The course shall concentrate on the major women writers including Efua, Sutherland, Micere Mugo, Ama Ata Aidoo, Jane Austin, Emily Dickinson, Alice Walker, Anita etc.

LITE 449 Modern Poetry **3 Credits**

This course explores the use of English language in modern poetry; Poetry as social comment, expression of emotion and personal experience. It also covers major thematic and literary trends in modern poetry since the 1900s. The works of Wole Soyinka, Sedar Senghor, Dylan Thomas, T. S. Eliot, Robert Frost, Wallace Stevens, etc. are covered.

LITE 450 Theatre Arts **3 Credits**

This course provides a study of the art, craft, and business of the theatre. Special emphasis is placed on a variety of practical productions during the semester, aimed at equipping the individual students with meaningful skills in acting, directing, play analysis and scripting. Upon completion, students should be able to demonstrate an understanding of theatre vocabulary and recognize the contributions of various theatre artists. Learners are exposed to the actual experience of play production through various roles on and off stage. They are expected to master the simple principle of stage movement. The process of adjudication is also introduced. At the end of the course each learner must have taken part in a theater project which involves a live production.

LITE 451 Major Author **3 Credits**

The course offers a comprehensive study of any one selected outstanding writer who has written extensively. Besides analyzing the author's biography, the course examines the cardinal concerns, styles, and the literary and ideological contributions of his/her works. The impact of this writer to the social and literary environment is also examined.

LITE 453 Literary Studies of the English Bible **3 Credits**

The course studies the artistic qualities of selected portions of the English Bible. It is a realization that although God inspires the Biblical writers, they write within accepted artistic structures and conventions similar to those used in secular works of literature. The study of these structures and conventions is expected to lead to a deeper understanding of the truth inspired by God and embedded in art. *Prerequisite: LITE 151.*

LITE 455 Theory, Fieldwork and Research Skills in Oral Literature **3 Credits**

The course deals with the role of theory in the study of oral literature. The theories will then be applied in the analysis of oral literature material. The ideological, folkloristic and structural approaches to the study of oral literature will be explored. For first-hand experience in field work and research skills, learners are required to spend time in the field collecting oral literature material. Students will demonstrate competence in practical research techniques and analysis through reports. *Perquisite: ENGL 105.*

LITE 456 Caribbean Literature **3 Credits**

The course examines the importance of history in Caribbean writing; slavery and indentured servitude; Christopher Columbus and European discovery, Caribbean wars. Themes in Caribbean literature: Home and exile, colonialism and decolonization, tradition, culture, identity, sexuality etc. images of Africa, Europe and East India in Caribbean literature. Literary, political and socio-economic contexts of Caribbean literature. Major authors include Naipul, Selvon, Lamming, Pollard, Walcott, Brathwaite, etc.

LITE 466 Research/Creative Writing Project **3 Credits**

This course has two options: a research project or creative writing project. A student selects a literary topic which is approved by the department. Supervision is provided by the department to guide the student to write a proposal, then thereafter submit a written library or field research project. Alternatively, a student may write an original creative composition of an anthology of poems, short stories, or a play. This course spans two semesters. *Prerequisites: ENGL 465 and ENGL 105.*

MUAF 314 African Music**2 Credits**

African Music explores the rich and diverse musical traditions of the African continent. Students will study various traditional and contemporary African musical genres, instruments, and their cultural significance. The course also addresses the historical and sociocultural context of African music.

MUAF 315 Kenyan Music**2 Credits**

This course focuses specifically on the music of Kenya. Students will explore the traditional and contemporary music of Kenya, including its instruments, rhythms, and cultural significance. The course highlights the diversity of Kenyan musical traditions. *Prerequisite: MUAF 314.*

MUBS 200 Introduction to Music Business**2 Credits**

This course provides an overview of the music industry, covering topics such as artist management, record labels, copyright and licensing, concert promotion, and digital distribution. Students will gain insights into the business aspects of the music world.

MUCH 276 Church Music**2 Credits**

A deeper study on the role of music in the Christian's personal life, home, school, evangelism, church services and church music administration and a study on principles of music for worship espoused in the Bible and Spirit of Prophecy and the Seventh-day Adventist Philosophy of Music. In-reach and out-reach programs are required to give experience to the students through skill trainings, seminar and demonstrations in local churches.

MUCH 376 Introduction to Hymnology**2 Credits**

Introduction to Hymnology is a course that explores the rich tradition of hymn-singing in both historical and contemporary contexts. Students will study the development of hymns, their cultural significance, and their role in religious and secular settings. The course covers hymn composition, hymn texts, and hymn tunes. Students will analyze and perform hymns from different eras, gaining an understanding of hymnody's cultural and spiritual impact. *Prerequisite: MUCH 276*

MUED 325 Introduction to Music Education**2 Credits**

A study of the philosophical and historical foundation of music education with emphasis on Adventist Philosophy of education. Also includes an overview of the different music programs for elementary and secondary school.

MUED 326 Music Education Methodology**2 Credits**

A survey of various teaching philosophies, objectives, methodology and materials in classroom teaching. Collection of materials and teaching practicum in the classroom is required. *Prerequisite: MUED 325*

MUED 327 Piano Pedagogy**2 Credits**

Discusses and evaluates various teaching philosophies, objectives, methodology and materials in teaching piano. Practical experience in teaching piano at the elementary and early intermediate levels under faculty supervision, is compulsory. *Prerequisite: MUED 325 and MUPF 202*

MUED 328 Vocal Pedagogy**2 Credits**

Discusses and evaluates various teaching philosophies, objectives, methodology and materials in teaching voice. Practical teaching experience at the elementary and early intermediate levels, under faculty supervision, is compulsory. *Prerequisite: MUED 325 and MUPF 292*

MUED 491 Conducting I**2 Credits**

This course deals with the philosophy and basic principles of conducting technique for both choral and instrumental ensembles. The awareness of the relationship between ear, gestures and sound will be established in this course. A study of beating technique, rehearsal technique and procedures, and score preparation is also included.

MUED 492 Conducting II**2 Credits**

Continued development of conducting studies, delving deeper into more advanced aspects of conducting. A study of conducting techniques, interpretation of choral/instrumental scores, rehearsal procedures, tonal concepts, and ensemble administration is included. Practical experience in actual ensemble training and conducting will also be included in the course. *Prerequisite: MUED 491.*

MUED 429 Music Teaching Practicum**3 Credits**

Student is exposed to practical experience in teaching secondary school for one full term of twelve weeks. While on teaching practice the cooperating teacher (class teacher) works closely with the student teacher and keeps a detailed description of the progress of the student. *Prerequisite: MUED 326*

MUET 311 Introduction to Ethnomusicology**2 Credits**

A study of the cultural and artistic forces which shape the music of non-Western World and the various types of folk and art music resulting from these forces.

MUET 312 World Music**2 Credits**

This course explores the diverse musical traditions from around the world. Students will study various global music cultures, instruments, and performance practices. Emphasis is placed on understanding the cultural and historical context of music, as well as how it influences and is influenced by society. *Prerequisite: MUET 311*

MUGR 100 Music Appreciation**2 Credits**

This is a general requirement course. It is designed to cultivate a deep understanding and appreciation for the diverse world of music. Throughout the course, students will explore the rich history, cultural significance, and various genres of music, spanning classical to contemporary styles. Emphasizing active listening, the course delves into the elements of music, such as melody, harmony, rhythm, and form, enabling students to discern and analyze musical compositions critically. Additionally, the course will highlight key composers, influential movements, and societal influences on music evolution, fostering a well-rounded appreciation for the art form. Through lectures, discussions, and immersive listening experiences, students will develop the skills to articulate their musical preferences, understand the contextual significance of compositions, and engage with music as a source of cultural expression and emotional resonance. This course aims to instill a lifelong passion for music and provide a foundation for informed musical discourse. Music majors and minors are exempted from taking this course as the content is covered in more detail in their respective programs.

MUGR 101 Music Instrument**1 Credits**

This is a vocational skills course designed to meet a general education requirement. It offers comprehensive training in playing, repairing, and teaching a chosen instrument. The course focuses on foundational techniques, incorporating practical performance, music theory concepts, and hands-on instrument repair skills. Students will engage in lectures, demonstrations,

and practice sessions, utilizing dedicated resources to develop proficiency in their chosen instrument.

MUHL 280 Introduction to Music History 2 Credits

The course is a general study on historical development of Western music from Antiquity through Contemporary Period. Emphasis is on the trends, styles, social influences, and aesthetics of the different periods.

MUHL 281 Survey of Music History and Literature I 2 Credits

The course is a survey of the historical development of Western music from Antiquity through Medieval and Renaissance Period with score and aural analysis of representative compositions. Emphasis is on the trends, styles, social influences, and aesthetics of the period.

MUHL 282 Survey of Music History and Literature II 2 Credits

The course is a survey of the historical development of Western music from Baroque through Classical Period with score and aural analysis of representative compositions. Emphasis is on the trends, styles, social influences, and aesthetics of the period. *Prerequisite: MUHL 281*

MUHL 381 Survey of Music History and Literature III 2 Credits

The course is a survey of the historical development of Western music from Romantic through 20th and 21st century Period with score and aural analysis of representative compositions. Emphasis is on the trends, styles, social influences, and aesthetics of the period. *Prerequisite: MUHL 282*

MUHL 382 Piano Literature 1 Credit

A general overview of selected composers and keyboard compositions from Baroque through Contemporary periods. Elements of musical style, genres, and performance practice will be included in the discussions. Reading and listening assignments will supplement the in-class presentations by faculty and students. *Prerequisite: MUPF 301*

MUHL 383 Vocal Literature 1 Credit

A general overview of selected composers and vocal compositions of Baroque through Contemporary periods. Elements of musical style, genres, and performance practice will be included in the discussions. Reading and listening assignments will supplement the in-class presentations by faculty and students. *Prerequisite: MUPF 391.*

MUPF 101 Piano I 2 Credits

In Piano I, students will begin their piano journey with a focus on fundamental skills. The course covers basic piano technique, note reading, and introduces simple pieces from the ABRSM Grade 1 syllabus. Students will develop hand coordination and learn to play simple tunes, providing a strong foundation for future piano studies.

MUPF 102 Piano II 2 Credits

Piano II builds upon the skills learned in Piano I. Students will continue developing their piano technique, sight-reading, and musical interpretation. The course introduces more complex pieces from the ABRSM Grade 2 syllabus, allowing students to explore a wider range of musical styles and dynamics. *Prerequisite: MUPF 101*

MUPF 191 Voice I 2 Credits

Voice I introduces students to the basics of vocal technique, including posture, breath control, and vocal exercises. Students will learn and perform simple songs from the ABRSM Grade 1 syllabus, focusing on accurate pitch and clear diction.

MUPF 192 Voice II 2 Credits

Voice II builds upon the foundational skills developed in Voice I. Students will further refine their vocal technique and expand their repertoire with pieces from the ABRSM Grade 2 syllabus, incorporating more complex melodies and dynamics. *Prerequisite: MUPF 131.*

MUPF 171 Musicianship I 2 Credits

Musicianship I introduces fundamental music theory and aural skills. Students will learn to read and write music notation, understand basic harmony, and develop their ear training abilities.

MUPF 172 Musicianship II 2 Credits

Building on Musicianship I, this course further explores music theory and aural skills. Topics include advanced harmony, counterpoint, and more complex rhythm and melody concepts. *Prerequisite: MUPF 171.*

MUPF 201 Piano III 2 Credits

Piano III focuses on further enhancing piano technique and musical understanding. Students will work on pieces from the ABRSM Grade 3 syllabus, which include more intricate rhythms and dynamics. Emphasis is placed on expression and interpretation. *Prerequisite: MUPF 102.*

MUPF 202 Piano IV 2 Credits

In Piano IV, students advance to a higher level of playing. The course includes repertoire from the ABRSM Grade 4 syllabus, where students will tackle more challenging pieces. Technical skills, such as scales and arpeggios, will also be emphasized. *Prerequisite: MUPF 201.*

MUPF 391 Voice III 2 Credits

In Voice III, students continue to develop their vocal skills, working on pieces from the ABRSM Grade 3 syllabus. Focus areas include phrasing, expression, and breath control. Students will also delve deeper into music theory related to singing. *Prerequisite: MUPF 192.*

MUPF 232 Voice IV 2 Credits

Voice IV advances vocal technique and expands the repertoire with pieces from the ABRSM Grade 4 syllabus. Students will work on more demanding vocal compositions, incorporating dynamics and articulation. *Prerequisite: MUPF 231.*

MUPF 241 Strings 1 Credit

A study and acquisition of the basic skills in the performance of string instruments.

MUPF 242 Woodwinds 1 Credit

A study and acquisition of the basic skills in the performance of woodwind instruments.

MUPF 271 Advanced Musicianship 2 Credits

Advanced Musicianship is a more in-depth exploration of music theory and aural skills. Students will tackle advanced harmonic progressions, analysis, and develop the ability to transcribe complex music. *Prerequisite: MUPF 172.*

MUPF 301 Piano V**2 Credits**

Piano V marks a significant step in a student's piano journey. Students will study pieces from the ABRSM Grade 5 syllabus, which demand a higher level of technical proficiency and musical interpretation. Theory and ear training components become more prominent. *Prerequisite: MUPF 202.*

MUPF 302 Piano VI**2 Credits**

Piano VI takes students to an intermediate-advanced level. The course explores pieces from the ABRSM Grade 6 syllabus, which include more complex compositions. Advanced technique, music theory, and sight-reading are central to the curriculum. *Prerequisite: MUPF 301.*

MUPF 391 Voice V**2 Credits**

Voice V represents an intermediate level of vocal study. Students will explore pieces from the ABRSM Grade 5 syllabus, developing their vocal range, resonance, and musical interpretation. *Prerequisite: MUPF 292.*

MUPF 392 Voice VI**2 Credits**

Voice VI focuses on refining vocal technique, preparing students for more advanced singing. The course includes pieces from the ABRSM Grade 6 syllabus, emphasizing complex vocal ornamentation, phrasing, and stylistic nuances.

MUPF 341 Brass**1 Credit**

A study and acquisition of the basic skills in the performance of brass instruments.

MUPF 342 Percussion**1 Credit**

A study and acquisition of the basic skills in the performance of percussion instruments.

MUPF 343 Guitar**1 Credit**

A study and acquisition of the basic skills in guitar performance.

MUPF 355 Choral Ensemble**2 Credits**

Choral Ensemble provides students with the opportunity to participate in a vocal ensemble, emphasizing the collaborative aspects of choral singing. Students will learn and perform a diverse repertoire of choral music, focusing on vocal blend, harmonization, and expressive interpretation. The course encourages teamwork and fosters the development of strong choral musicianship, with an emphasis on choral performance skills and vocal techniques.

MUPF 365 Instrumental Ensemble**2 Credit**

Instrumental Ensemble is designed to provide experience in playing in a group setting. The course covers ensemble performance on various instruments, such as orchestral, chamber, or other instrumental groupings. Students will explore a wide range of instrumental repertoire, develop ensemble skills, and gain experience in rehearsing and performing as part of an instrumental ensemble.

MUPF 401 Piano VII**2 Credits**

Piano VII represents a high level of piano performance. Students will engage with pieces from the ABRSM Grade 7 syllabus, showcasing their mastery of piano technique and interpretation. The course includes advanced theory and performance skills. *Prerequisite: MUPF 302*

MUPF 402 Piano VIII**1 Credit**

Piano VIII is an advanced piano course, equivalent to ABRSM Grade 8 standards. Students will work closely with a piano instructor

to select, prepare, and perform a challenging solo piano recital program. The repertoire will include pieces that meet or exceed the technical and musical requirements of ABRSM Grade 8. Students will receive rigorous training and personalized coaching to master the pieces. As a significant component of this course, students will be expected to perform a public piano recital, showcasing their ability to meet the Grade 8 ABRSM standards. This course emphasizes stage presence, musical communication, and the delivery of a polished and captivating recital. *Prerequisite: MUPF 401.*

MUPF 403 Introduction to Collaborative Piano**2 Credits**

This course offers a comprehensive foundation in collaborative piano performance, emphasizing teamwork, communication, and musical sensitivity. Students explore the collaborative pianist's role in ensemble settings, focusing on score analysis, accompaniment techniques, and interpretative skills for various genres. Through theoretical discussions, practical sessions, and ensemble work, participants develop the necessary skills to excel as collaborative pianists, understanding the nuances of musical partnership and their pivotal role in diverse musical contexts. *Prerequisite: MUPF 401.*

MUPF 431 Voice VII**2 Credits**

Voice VII represents an advanced level of vocal performance. Students will work on pieces from the ABRSM Grade 7 syllabus, demonstrating their vocal mastery in terms of range, interpretation, and advanced musical techniques. The course also explores vocal pedagogy and performance preparation. *Prerequisite: MUPF 392.*

MUPF 432 Voice VIII**1 Credit**

Voice VIII is an advanced vocal course, equivalent to ABRSM Grade 8 standards. Students will collaborate closely with a voice instructor to select, prepare, and perform a diverse solo vocal recital program that aligns with the technical and musical requirements of ABRSM Grade 8. The repertoire will encompass a wide range of vocal genres, languages, and stylistic nuances. Students will receive intensive vocal training and personalized coaching to master the pieces. A significant component of this course is the requirement to perform a public voice recital that meets the Grade 8 ABRSM standards. The course places a strong emphasis on stage presence, audience engagement, and the delivery of a compelling and polished recital performance. *Prerequisite: MUPF 431.*

MUPF 433 Singer's Diction**1 Credit**

A general study of English, Italian, Spanish, German and French languages with clear and correct pronunciation, enunciation and articulation for use in solo and chorus singing. *Prerequisite: MUPF 391.*

MUPH 415 Philosophy of Music**2 Credits**

Philosophy of Music delves into the philosophical aspects of music, exploring topics like aesthetics, music's role in culture, and the nature of musical meaning. Students will engage in critical discussions about the philosophical underpinnings of music.

MUPR 495 Music Practicum**3 Credits**

Music Practicum provides students with hands-on experience in various aspects of the music profession. This may include internships, performance opportunities, and project-based work to apply their musical knowledge and skills in a real-world context.

MUPS 416 Psychology of Music 2 Credits

The Psychology of Music course delves into the cognitive and emotional aspects of music perception and creation. Students will study how music impacts human behavior, emotions, and cognition. Topics include music therapy and the psychology of musical preferences.

MURS 421 Research Methods in Music 2 Credits

This is a course that introduces a methodology for Research in Music. The course includes definition of research, survey of types of research, problem identification; writing a research proposal; methods of gathering data and interpretation of data. *Prerequisite: ENGL 105.*

MURS 422 Music Research Project 2 Credits

This course is a continuation of MURS 322. Student chooses a topic from the field of music education, history, theory or musicology and writes an original paper showing methods and strategies of the chosen topic, culminating in a public presentation of the research project. *Prerequisite: MURS 421.*

MUTC 247 Introduction to Music Technology 2 Credits

Introduction to Music Technology is a foundational course exploring the fusion of music and technology. Students gain hands-on experience with digital audio workstations, electronic music synthesis, recording techniques, and technology in live performances. The curriculum combines practical skills development with an examination of the historical and cultural impact of technological advancements in music. This course equips students with the knowledge and proficiency to navigate the dynamic world of music technology, fostering creativity and innovation in musical composition, performance and instruction.

MUTC 248 Introduction to Video Production 3 Credits

This is an introduction to the basics of capturing motion picture and editing. It also involves the introduction of Video editing hardware and software and other special effects used in editing. A simple project involving video capturing and editing is a requirement of this course.

MUTC 249 Introduction to Sound Production 3 Credit

This is an introduction to the basics of capturing sound and editing. It also involves the introduction of sound editing hardware and software and other special effects used in editing. A simple project involving sound recording and editing is a requirement in this course.

MUTH 160 Music Theory and Composition I 3 Credits

Music Theory and Composition I is an introductory course designed for students who are beginning their journey in music theory. This course aligns with ABRSM Grades 1-3 and covers essential topics such as basic notation, scales, key signatures, and elementary harmony. Students will learn to read and write music, understand fundamental musical structures, and engage in basic composition exercises. By the end of this course, students will have a strong foundation in music theory, enabling them to analyze simple compositions and create their own music.

MUTH 161 Music Theory and Composition II 3 Credits

Music Theory and Composition II is an intermediate-level course that corresponds to ABRSM Grades 4-5. Building on the foundation established in Music Theory and Composition I, this course delves deeper into music theory concepts, including more complex key signatures, intervals, and harmony. Students will

explore diverse musical forms, analyze compositions, and engage in more advanced composition exercises. By the end of this course, students will possess a comprehensive understanding of music theory and be capable of analyzing and creating music of moderate complexity. *Prerequisite: MUTH 160.*

MUTH 260 Music Theory and Composition III 3 Credits

Music Theory and Composition III is designed to align with ABRSM Grade 6 standards. This course explores advanced music theory topics, including modes, non-diatonic harmony, and musical analysis. Students will develop their compositional skills by working on more sophisticated composition projects. By the end of this course, students will have a solid grasp of Grade 6 ABRSM music theory concepts, enabling them to analyze complex compositions and create original pieces with confidence. *Prerequisite: MUTH 161.*

MUTH 261 Music Theory and Composition IV 3 Credits

Music Theory and Composition IV corresponds to ABRSM Grade 7 standards, representing an advanced level of music theory and composition. Students will delve into intricate topics such as advanced chromatic harmony, orchestration, and advanced analysis. Composition projects will challenge students to create complex works in various styles. By the end of this course, students will possess a high level of proficiency in Grade 7 ABRSM music theory concepts, enabling them to analyze and compose music at an advanced level. *Prerequisite: MUTH 260.*

MUTH 360 Music Theory and Composition V 3 Credits

Music Theory and Composition V aligns with ABRSM Grade 8 standards, representing the highest level of music theory and composition mastery. Students will explore advanced counterpoint, complex forms, and thorough musical analysis. The composition projects in this course will demand the creation of highly sophisticated works. By the end of this course, students will have an exceptional command of Grade 8 ABRSM music theory concepts, allowing them to analyze and compose music at an expert level, preparing them for advanced music studies and professional composition. *Prerequisite: MUTH 261.*

MUTH 361 Introduction to Counterpoint 2 Credits

A study of melody against melody style of writing music in which two or more melodic lines, or parts, of equal importance and independence are combined in contrapuntal texture. *Prerequisite: MUTH 360.*

MUTH 460 Song Writing 2 Credits

Songwriting covers the art and craft of creating original songs. Students will learn about song structure, lyrics, melody, harmony, and arrangement. The course also emphasizes the development of individual songwriting skills. *Prerequisite: MUTH 360*

MUTH 462 Form and Analysis 2 Credits

A study of the various forms and structures used in music composition during the Baroque, Classical, Romantic and Contemporary periods. *Prerequisite: MUTH 360.*

MUTH 463 Advanced Composition and Arranging 2 Credits

Advanced Composition and Arranging is designed for students who wish to expand their creative and compositional skills. This course delves into advanced techniques of composition and arranging for various musical ensembles. Students will learn about orchestration, harmony, counterpoint, and advanced music notation. Through practical exercises and projects, students will

create original compositions and arrangements, honing their skills as composers and arrangers in diverse musical genres. *Prerequisite: MUTH 361 and MUTH 462.*

MUTH 464 Orchestration 2 Credits

A study of the technique of writing and arranging music for orchestra. It includes the study of instruments, their ranges, characteristic timbres, technical capabilities, and the many ways in which instrumental sounds may be combined together-blended or contrasted- to create various kinds of musical textures. It also includes the scoring of family groups of instruments (strings, woodwinds, brass, percussion, etc.) leading to the scoring of full orchestra. *Prerequisite: MUTH 361 and MUTH 462.*

MUTH 465 Introduction to Film Music 2 Credits

Introduction to Film Music examines the role of music in cinematic storytelling. Students will learn how music enhances emotions, atmosphere, and narrative in films. Topics include film scoring techniques, soundtracks, and the collaboration between composers and filmmakers. Students will gain valuable knowledge and skills in actual film scoring. *Prerequisite: MUTH 463, MUTH 464 and MUTC 247*

POLS 100 Introduction to Government 3 Credits

This course focuses on the concept, role and functions of political Science as a social science. Background to the development of political Science as a discipline of study will be considered: nature and scope of political Science and its relationship with other social Sciences; human activities that constitute the foci of political study. An examination of theories in political science will be attempted. The course will also pay attention to an outline analysis of nature, processes and ends of the modern state as well as the various types of political systems; an examination of the role of such key political institution as parties, pressure groups, executives, legislatures and other arms of major issues in political science will also be tackled.

POLS 200 Modern Governments in Africa 3 Credits

The course will examine the evolution in the themes like Mercantilism; the classical political economic thought, utilitarianism, capitalism and socialism to the development of Africa; political and economic systems; the political economy theory and contemporary third world development challenges: the role of the African state in its economic development; the international economic system and the place of African states, international financing and the third world; governance, globalization, poverty, environmental change and the way forward tackling third world political and economic dilemma.

POLS 207 Political systems of Developing Nations 3 Credits

This course reviews and critically discusses outstanding contributions that are aimed at grasping the specific features of politics in developing countries, and the challenges and opportunities for political solutions to the pressing problems. The contributions include theoretical and comparative analyses of the special role of politics in post-colonial governance, state- building and initial democratization, state society relations, state capacity, and social- and political organizing, the new wave of democracy and its crises, and international support for peace and democracy.

POLS 210 Introduction to International Relations 3 Credits

This course is a survey of the concept of international relations. The following are among the items to cover: Classical of

international relations; contemporary theories of international relations; Theory and practice of international relations of state; power; propaganda and diplomacy in the practice of international relations; major approaches to the study of international relations; relation of national and international politics, security and sovereignty.

POLS 220 Africa in International Relations 3 Credits

An analysis of the relations between Africa and the developed world and how African aspirations fit the wider field of the global system including the United Nations, the former colonial masters, the non-aligned movement and the foreign aid agencies. To be covered also will be Africa's struggle to get space in the community of nations through African Union: the politics of aid; conflicts and refugee problems and Africa's role and objective in the ACP.

POLS 221 Introduction to Political Science 3 Credits

This course focuses on the concept, role and functions of political Science as a social science. Background to the development of political Science as a discipline of study will be considered: nature and scope of political Science and its relationship with other social Sciences; human activities that constitute the foci of political study. An examination of theories in political science will be attempted. The course will also pay attention to an outline analysis of nature, processes and ends of the modern state as well as the various types of political systems; an examination of the role of such key political institution as parties, pressure groups, executives, legislatures and other arms of major issues in political science will also be tackled.

POLS 230 Comparative Government in Developed Countries 3 Credits

Comparative analysis of different systems of government among selected countries in Western Europe and Asia, including: Britain, USA, Germany, France, and Japan. The emergence of constitutional systems of government in the USA, Japan and Western European countries. Functions of the executive, legislature and executive in the selected countries. Electoral process in the developed countries. Religion and governments in different countries

POLS 300 Political Economy of Developing Countries 3 Credits

The mutual bearing of economics and politics will be attempted: that is the thought of scholars like Adam Smith; David Hume; John Stuart Mill; Francois Quesnay; David Ricardo; Karl Marx; Thomas Malthus. The course will also examine the evolution in the themes like Mercantilism; the classical political economic thought, utilitarianism, capitalism and socialism to the development of third world political and economic systems; the political economy theory and contemporary third world development challenges: the role of the third world state in its economic development; the international economic system and the place of third world states, international financing and the third world; governance, globalization, poverty, environmental change and the way forward tackling third world political and economic dilemma.

POLS 310 Politics and Government in Kenya 3 Credits

An analysis of the Pre-colonial state systems as a base of politics and government in Kenya will be done; change of system at independence to establish a modern state with characteristic political and administrative structures will also be examined. The course will further focus on the trade union movements;

the political movements and pressure groups culminating in nationalist movement and the process of independence; post-independence transformations; and the politics of resource allocation equity and social justice in Kenya.

POLS 320 Local Government politics in Kenya 3 Credits

This course focuses on governance at local authorities and service delivery to the citizens. The functions of local authorities; financing; tendering and procurement procedures; policy implementation; planning; drainage and sewerage system; roads; social amenities; garbage collection and challenges facing local authorities will be studied. The relationship between the local government and Central Government will be considered.

POLS 430 Politics and Environmental Welfare 3 Credits

The Course introduces the learner to the source of water through hydrology. Further it provides the advanced and applied perspectives of water resources, the utility and constraints to both the society and the Environment. The specific utility are outlined on domestic, industrial, agricultural, conservation and riparian water.

POLS 435 Developed and Developing Nations Comparative Politics 3 Credits

This is a course which explores the political, economic, and social challenges of Third World development. It covers a wide range of contemporary issues affecting developing countries, and focuses especially on aid and development policies aimed at reducing poverty and underdevelopment. This course also surveys major theoretical and conceptual tools available for the analysis of development and underdevelopment. Comparative assessment of problems of the developed nations and the developing nations will be attempted.

POLS 440 History of Political Thought 3 Credits

This course traces historical development of political ideas from Plato and Aristotle to the present. The conceptual network of ideas of selected thinkers will be delineated and connections shown between the thinkers and the political beliefs of his or her period. The contributions of the thinkers at issue here, to the concept and nature of law, justice, liberty, equality of status and justice and the limit of law will also be explored. The course is designed to give the students opportunity to explore and study selected thinkers from Europe, the Americas, Africa and Asia and their political thought with an eye to introducing them to inquiry into critical thinking and political theories, their implications and ramifications, as well as their interpretations, assessments and applications.

POLS 443 African Political Thought 3 Credits

The content of this course zeroes in on the evolution and development of endemic political ideas in Africa and examines the influence of extraneous factors in shaping that development to date. Notable political theorists will be studied, the setting of their thought and similarities and/or differences in their schools of thought and the explanations of such. The role of African political thinkers on the political beliefs of their time, and the present governance systems will be assessed. Assessment of the relevance of the political theories in a highly globalized world shall also be done.

PSYC 101 Introduction to Psychology 2 Credits

The course presents an overview of the discipline of psychology. It addresses concepts such as Perception, Consciousness,

Motivation, Emotion, Human development, Personality, Abnormal behavior, Social psychology, Psychotherapy, Research methods, Stress, Memory, Intelligence, and learning.

PSYC 110 General Psychology I 2 Credits

The course is an in-depth study of general psychology. It covers the History and methods of physiology of the nervous system, Genetics and environment, Aspects of human development, Consciousness, Sensation, Perception, Learning, and Memory.

PSYC 111 General Psychology II 2 Credits

This course is a continuation PSYC 110. It addresses language and thought, Intelligence, Motivation, Emotion, Stress, Personality, Organizational /Industrial psychology, Psychological disorders, therapy, and Social behavior. *Prerequisite: PSYC 101 or PSYC 110.*

PSYC 340 Motivation and Behavior Change 2 Credits

The course discusses motivation (our wants and needs that propel us in specific directions) in relation to health practices in detail. Theories of motivation and social influence as well as social marketing for behavior change are presented. *Prerequisite: PSYC 101 or PSYC 110 or PSYC 111.*

PSYC 393 Cognition 2 Credits

The course basically deals with various aspects of our mental higher processes. It therefore addresses issues such as Thinking, Reasoning, Problem solving, Intelligence, Testing, Creativity, Deciding, Communicating, and carefully weighing the advantages and disadvantages of potential alternatives. *Prerequisite: PSYC 101 or PSYC 110 or PSYC 111.*

PSYC 450 Social Psychology 2 Credits

The course addresses the study of human behavior in group settings. Issues such as Stereotypes, Prejudice, Evil, helping behavior, Friendship, Liking and loving, Social facilitation, and Obedience are discussed. *Prerequisite: PSYC 101 or PSYC 110 or PSYC 111.*

PSYC 488 Topics in Health Psychology 2 Credits

The course focuses on current issues and latest research findings Solutions to health problems are sought. Learners research the literature and present papers on topics not fully covered in other classes. Special guests may be invited to make presentations. *Prerequisites: PSYC 101 or PSYC 110 and ENGL 105.*

PSYC 496 Senior Project in Health Psychology 2 Credits

The course deals with projects which learners choose in consultation with / under the guidance of appropriate lectures in the department. Usually, the said projects involve presentation of health promotion programs in the community, complete with evaluation of results. *Prerequisites: completion of at least 20 credits of courses in the Health Psychology minor and ENGL 105.*

SOWK 111 Introduction to Social Work 3 Credits

This course is intended to intellectually ground the learners adequately with the other social science discipline, knowledge and their relationship to Social work. Basic concepts in Social work, the historical background of social work as a profession, background to Social work in Kenya (and other selected sub-Saharan African Countries), main components of Social profession (a defined clientele, code of ethics, principles, methods, grounded on theory), the relationship between Social Work and the Social Sciences such as Sociology, Economics, Political Science, Anthropology, Philosophy and Psychology; the relevance and

contributions of the social sciences to Social Work concepts, research and practice.

SOWK 112 Principles and Methods of Social Work 3 Credits

The course is intended to introduce learners to the field of Social Work, its philosophy, ways of practice and trace the same since its inception to date. The profession of Social Work: Basic philosophy and generic principles; the relationship between Social Work and the social and behavioral sciences; the main components of the Social Work profession; the history of Social Work; the evolution of social welfare policies from Western countries and their introduction in Africa; development of social work in Kenya (and case studies of selected countries in Africa).

SOWK 230 Social Work Theory and Practice 3 Credits

To introduce the learner to a set of major theories and their role in explaining, describing and predicting human behavior in social work practice. The course introduces a theory as a concept, its dynamics and role in social work practice, personality development theories, and socialization theory, theories of social work values, case management theories, socio-psychological and analytic theory, role theory, and Communication theory in social work. Discriminatory and oppressive perspectives, racist and feminist perspectives, Humanist and Existential perspectives in social work and group work; and radical Marxist models and non-Marxist views will be discussed.

SOWK 240 Family and Child Welfare 3 Credits

To develop the students' understanding of the family as the basic unit of social organization, its forms, dynamics, processes and how these relate to child rearing, and family welfare. The course discusses the types of marriage and its functions, dissolution of marriage, kinship and descent. family as a social unit, forms of household, family functions, life cycle of the family; family as a powerful environment, family dynamics and processes, family conflicts and their management, changes in family patterns, family processes, family policies, management of family resources, family and the law, family role relations and dissolution of family role systems and implications involved. Theories on the family, Population issues and the family, basic needs and

rights of the child, parenthood, child abuse and neglect, social welfare approach to family needs, family crises and modes of management.

SOWK 300 Social Policy and Administration 2 Credits

The course is intended to explore in broad terms the history, politics, sociology and economics of social services in both developed and developing countries. The substantive nature of social policy as it relates to services provision as well as its administration will form a core theme of the course. The subject matter of social policy and administration; basic issues in policy making; the nature of social welfare administration; impact of bilateral donors and their policies on social services, public and private organization in social welfare, challenges in administering social policy in developing countries.

SOWK 320 Social Deviation and Rehabilitation 3 Credits

The course discusses forms of deviation, physical, mental, behavioral and personality. Theories relating to deviation; the concept of rehabilitation; principles and practice of medical and psychological rehabilitation; processes of rehabilitation, psycho-social, vocational, institutional, community-based placements, employment and rehabilitating disability. Principles, methods and techniques of rehabilitating various disabilities with special reference to the Kenyan experience will be covered; Operation of rehabilitation services.

SOWK 400 Social Law 3 Credits

The course is intended to sensitize the learner to the relationship between social groups and written state regulations. The course content covers: Law and individual behavior; Collective behavior and actions of government; Forms of social legislation, substantive and procedural law in social development and administration; The legislative machinery and process in Kenya; The social foundations of law; Marital and family law, law and women. Land laws in Kenya; Law of succession.

DEPARTMENT OF THEOLOGY AND RELIGIOUS STUDIES

FACULTY

Kasay L., PhD. Head of Department
Bundi, A., MA
Odek, R., PhD.
Matte, D., DMin
Malayi, A., MA
Mutua, J., PhD.
Mwendambio, P., PhD
Wahonya, P., PhD.
Nanka, T., BA

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PHILOSOPHY

Theology, as a discipline of study, is primarily concerned with the actions of God in history. Among these actions is God's role as Creator and Sustainer of the universe. Theology thus reminds humanity of the entrance of sin into the world and God's redemptive act of saving humanity from the alienation and degradation of sin. This salvific act of God therefore becomes the basis and cornerstone of theological education. This education leads the students to realize their full potential as effective communicators of the gospel, Christian leaders, researchers in theology and religion and excel in effective service to God and humanity.

MISSION

To provide quality education for pastors, teachers, evangelists, administrators and other related professional careers for service in the Seventh-day Adventist Church and the society at large. The department strives to instill a life-long personal quest for research and study in Biblical, theological and religious fields for individual growth and continual excellence in service to God and mankind.

VISION

The department seeks to be a center of excellence, equipping men and women for faithful and effective service to God, church and society through application of the principles of sound Bible-based Christian education.

OBJECTIVES

The department strives to achieve the following:

1. To provide theological knowledge that is both culturally and contextually grounded in the African reality and the world at large.
2. To equip students with practical skills through ministerial practicum, evangelistic and outreach activities.
3. To expose students to the study of Scripture through commonly accepted exegetical methods, with emphasis on interpreting the text within the context of history, archaeology, and Biblical languages.
4. To prepare students to be able to teach Christian religious education in secondary schools and teachers' colleges.
5. To prepare students for graduate studies and advanced research.
6. To help the students uphold integrity and accountability in service to humanity

DEGREES OFFERED BY THE DEPARTMENT

1. Bachelor of Arts in Theology
2. Bachelor of Arts in Religion
3. Minor in Religion

EXPECTED LEARNING OUTCOMES

By the end of the studies in the Theology and Religious Studies program, the student should be able to;

1. Understand key theological terms such as religion, theology, doctrine, sin, evil, grace, justification, sanctification, righteousness, faith;
2. Distinguish traditional religious phenomena from Christian religious phenomena thereby being able to explain how God is the ultimate reality;
3. Explain the Christian doctrines such as; God, trinity, angels, creation, Satan, death, salvation, judgement, conversion, baptism, eschatology, second coming of Jesus Christ, resurrection;
4. Appreciate the role of the believer in the context of the work of God in respect to salvation and redemption as evidenced in the Bible, nature, and human experience;
5. Identify the milestones in the life of the Christian religion outlining the historical background of its growth and development through the eventual rise of Protestantism.
6. Compare Christian Religious beliefs and practices with those of major religions of the world including Judaism, Islam, Hinduism, Buddhism, Confucianism, Jainism, Taoism, Sikhism, Zoroastrianism, and African traditional religion;
7. Comprehend basics in the Hebrew Bible and the Koine Greek Testaments such as in reading, parsing, translating, interpreting;
8. Expound contemporary ethical issues and alternatives in decision making in the context of the Christian teaching;
9. Conduct biblical exegesis in light employing the tools of sound hermeneutical methods using history, archaeology and Biblical languages;
10. Help the students appreciate the historical and biblical backgrounds of Seventh-day Adventism and its unique role in Bible prophecy
11. Prepare and deliver sermons based on varying occasions such as Bible study, congregational, personal and public evangelism.
12. Develop a lifelong discipline in spiritual formation and expression

CAREER OPPORTUNITIES

The department educates and trains pastors to serve in the Seventh-day Adventist Church and develops scholars in religious studies regardless of denominational affiliation. The department also prepares students for careers in public service, NGOs, Law, Counseling Teaching etc.

ENTRANCE REQUIREMENTS

Direct Entry

Students wishing to pursue theology or religion as a major area must have a minimum grade of C+ in Christian religious education in the KCSE or its equivalent. In addition, the candidate must satisfy the minimum entrance requirements for the University of Eastern Africa, Baraton.

Interdepartmental Transfer

Inter-departmental transfer students should have a grade of C+ in RELT 207 Christian Beliefs.

Diploma Holders

Those with diploma in Pastoral theology or its equivalent are granted entry into the BA Theology program

GRADUATION REQUIREMENTS

Bachelor of Arts in Theology

Non – Academic Requirements;

1. Students wishing to take a major in Theology are required to maintain the following standards: Students are expected to be persons of high moral integrity since they are training for pastoral ministry and in particular the Seventh-day Adventist ministry.
2. On admission to the degree, a student will be required to present a recommendation letter from his/her local church pastor where he/she is a church member.
3. The Department will regard new students as provisionally admitted into the program for the first year of full-time study and will be formally admitted into the program at the beginning of the second year.
4. Students will be advanced to candidacy for graduation at the end of their junior standing.
5. The student will go through ethical evaluation progressively; as Ministerial Students after 36 credits, Ministerial Candidates at 72 credits and Ministerial Inductee at 108 credits. The students must apply for each stage and be approved by the department to progress.
6. The students who are approved as Ministerial Inductees must go through ministerial induction to be eligible for graduation.
7. A student who does not meet the above non-academic requirements will be advised to change his major to BA Religion or any other major of their choice

Academic Requirements

1. A minimum of 141 credits with a cumulative GPA of 2.00.
2. A minimum cumulative GPA of 2.25 in the core courses.

Bachelor of Arts in Religion

The BA in Religion is a program designed for those interested mainly in an academic pursuit of Religion.

1. A minimum of 132 credits comprising general education requirements, major area courses, and a minor in another area of study. Religion majors who do not desire a minor in another area of study must take additional upper division courses in the department to add up to 128 credits. Under such circumstances, the substitute courses will need to be approved by the department before the student can enroll for them.
2. A minimum cumulative GPA of 2.25 in the Religion core courses.
3. An overall cumulative GPA of 2.00
4. The students are encouraged to do another major or a minor in order to enhance or support their ministry. They may choose from the following areas or any other of their interest: marketing, computer science, development studies, public health, music, agriculture, nutrition and dietetics, food and nutrition, hotel and hospitality management, fashion and textile and social work, and guidance and counseling.

COURSE REQUIREMENTS

BACHELOR OF ARTS IN THEOLOGY

SUMMARY

General Education Requirements	31
Core	100
Cognate	8
Electives	4
Total	143 Credits

Theology students are exempted from the following General Education Requirements

Code	Course Title	Credits
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
RELH 155	Adventist Heritage	2
LITE 151	Introduction to Literary Appreciation	2

GENERAL EDUCATION REQUIREMENT COURSES

31 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2
CHEM 200/ ENVI 227/ TCED 231	Environmental Science/ Environment and Society/ Safety Education	2
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101 / SOC1 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1

FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		31

CORE COURSES

100 Credits

Code	Course Title	Credits
BIBL 201	Elementary Greek I	3
BIBL 202	Elementary Greek II	3
BIBL 301	Intermediate Greek I	2
BIBL 302	Intermediate Greek II	2
BIBL 421	Hebrew I	2
BIBL 422	Hebrew II	2
RELB 110	Biblical Backgrounds	2
RELB 202	Law and Writings of the Old Testament	3
RELB 274	Prophets of Israel I	2
RELB 275	Prophets of Israel II	2
RELB 304	Studies in Daniel	2
RELB 305	Studies in Revelation	2
RELB 320	Life and Teaching of Jesus Advanced	3
RELB 350	Biblical Hermeneutics	2
RELB 434	Acts and Epistles I	2
RELB 435	Acts and Epistles II	2
RELH 180	History of the Adventist Church	2
RELH 314	History of the Christian Church I	2
RELH 315	History of the Christian Church II	2
RELT 482	History of Christian Church in Africa	2
RELH 481	History of SDA Church in Kenya	2
RELP 114	Biblical Spirituality	1
RELP 116	Church Music and Worship	2
RELP 140	Principles of Church Growth	2
RELP 215	Literature Evangelism	1
RELP 221	Homiletics I	2
RELP 222	Homiletics II	2
RELP 235	Foundation of Youth Ministry	1
RELP 275	Marriage and Family	2
RELP 284	Stewardship and Self Reliance	2
RELP 307	Personal and Public Evangelism	2
RELP 310	Field School of Evangelism	1
RELP 335	Church Leadership and Administration	2
RELP 340	Introduction to Mission Studies	2
RELP 385	Pastoral Counseling and Psychology	2
RELP 390	Special Needs Ministry	1
RELP 402	Introduction to Chaplaincy	1
RELP 440	Introduction to Pastoral Ministry	3
RELP 450	Strategic Planning	2
RELP 461	Ministerial Practicum I	1
RELP 462	Ministerial Practicum II	1
RELT 130	African Traditional Religion	2
RELT 218	Comparative Religions	2
RELT 316	Introduction to Research Methods in Religious Studies	2
RELT 329	Islamic Studies	2

RELT 389	Issues in Religion and Science	2
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2
RELT 426	Writings and Philosophy of Ellen G. White	2
RELT 460	Contemporary Social Issues	2
RELT 468	Research Project	3
Total		100

COGNATE COURSES

8 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
LITE 453	Literature Studies of the English Bible	3
HIST 411	Selected Topics in Modern African History	3
Total		8

ELECTIVE COURSES

4 Credits

Code	Course Title	Credits
ELCT 102	Technology for Pastors	1
RELB 311	Introduction to Biblical Archaeology	2
RELT 318	New Religious Movement in Africa	2
RELT 331	Phenomenology of Religion	2
RELT 333	Sociology of Religion	2
RELT 334	African Theological Thought	2
RELT 335	Issues in Ecumenism	2
RELT 360	Contemporary Themes in Christian Theology	2
RELT 380	Philosophy of Religion	2

BACHELOR OF ARTS IN THEOLOGY FOR UPGRADERS

SUMMARY

General Education Requirements	19
Core	94
Cognate	8
Elective	4
Total	125 Credits

Upgrading students in the BA in Theology Program are exempted from the following General Education Requirements courses

Code	Course Title	Credits
PSYC 101	Introduction to Psychology	2
HIST 111	Concepts of World Civilization	2
ENVI 227	Environment and Society	2
INSY 107	Information Technology Today	2
EDUC 215	Introduction to Philosophy of Education	2
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
RELH 155	Adventist Heritage	2
LITE 151	Introduction to Literary Appreciation	2
RELT 255	Introduction to Christian Ethics	2

Upgrading student in the BA in Theology Program are exempted from the following Core Courses

Code	Course Title	Credits
RELT 480	History of Christian Church in Africa	3
RELP 114	Biblical Spirituality	1
RELP 275	Marriage and Family	2
RELP 235	Foundations of Youth Ministry	1

GENERAL EDUCATION REQUIREMENT COURSES

19 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
PHYS 100	Concepts of Physical Sciences	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		20

CORE COURSES

94 Credits

Code	Course Title	Credits
BIBL 201	Elementary Greek I	3
BIBL 202	Elementary Greek II	3
BIBL 301	Intermediate Greek I	2
BIBL 302	Intermediate Greek II	2
BIBL 421	Hebrew I	2
BIBL 422	Hebrew II	2
RELB 110	Biblical Backgrounds	2
RELB 202	Law and Writings of the Old Testament	3
RELB 274	Prophets of Israel I	2
RELB 275	Prophets of Israel II	2
RELB 304	Studies in Daniel	2
RELB 305	Studies in Revelation	2
RELB 320	Life and Teaching of Jesus Advanced	3

RELB 350	Biblical Hermeneutics	2
RELB 434	Acts and Epistles I	2
RELB 435	Acts and Epistles II	2
RELH 180	History of the Adventist Church	2
RELH 314	History of the Christian Church I	2
RELH 315	History of the Christian Church II	2
RELH 481	History of SDA Church in Kenya	2
RELP 116	Church Worship and Music	2
RELP 140	Principles of Church Growth	2
RELP 215	Literature Evangelism	1
RELP 221	Homiletics I	2
RELP 222	Homiletics II	2
RELP 284	Stewardship and Self Reliance	2
RELP 307	Personal and Public Evangelism	2
RELP 310	Field School of Evangelism	1
RELP 335	Church Leadership and Administration	2
RELP 340	Introduction to Mission Studies	2
RELP 385	Pastoral Counseling and Psychology	2
RELP 390	Special Needs Ministry	1
RELP 402	Introduction to Chaplaincy	1
RELP 440	Introduction to Pastoral Ministry	3
RELP 450	Strategic Planning	2
RELP 461	Ministerial Practicum I	1
RELP 462	Ministerial Practicum II	1
RELT 130	African Traditional Religion	2
RELT 218	Comparative Religions	2
RELT 316	Introduction to Research Methods in Religious Studies	2
RELT 329	Islamic Studies	2
RELT 389	Issues in Religion and Science	2
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2
RELT 426	Writings and Philosophy of Ellen G. White	2
RELT 460	Contemporary Social Issues	2
RELT 468	Research Project	3
Total		94

COGNATE COURSES

8 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
LITE 453	Literature Studies of the English Bible	3
HIST 411	Selected Topics in Modern African History	3
Total		8

ELECTIVE COURSES

4 Credits

Code	Course Title	Credits
ELCT 102	Technology for Pastors	1
RELB 311	Introduction to Biblical Archaeology	2
RELT 318	New Religious Movement in Africa	2
RELT 331	Phenomenology of Religion	2
RELT 333	Sociology of Religion	2
RELT 334	African Theological Thought	2
RELT 335	Issues in Ecumenism	2
RELT 360	Contemporary Themes in Christian Theology	2
RELT 380	Philosophy of Religion	2

BACHELOR OF ARTS IN RELIGION

SUMMARY

General Education Requirements	31
Core	61
Cognate	8
Elective	4
Minor	29
Total	133 Credits

Religion students are exempted from the following General Education Requirements

Code	Course Title	Credits
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
RELH 155	Adventist Heritage	2
LITE 151	Introduction to Literary Appreciation	2

GENERAL EDUCATION REQUIREMENT COURSES

31 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management and Entrepreneurial Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
RELT 255	Introduction to Christian Ethics	2
PSYC 101/ SOC 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1

FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		31

CORE COURSES

61 Credits

Code	Course Title	Credits
RELB 110	Biblical Backgrounds	2
RELB 202	Law and Writings of the Old Testament	3
RELB 274	Prophets in Israel I	2
RELB 275	Prophets in Israel II	2
RELB 304	Studies in Daniel	2
RELB 305	Studies in Revelation	2
RELB 320	Life and Teachings of Jesus Advanced	3
RELB 350	Biblical Hermeneutics	2
RELB 434	Acts and Epistles I	2
RELB 435	Acts and Epistles II	2
RELH 180	History of the Adventist Church	2
RELT 480	History of the Christian Church in Africa	3
RELH 314	History of the Christian Church I	2
RELH 315	History of the Christian Church II	2
RELT 130	African Traditional Religions	2
RELT 218	Comparative Religions	2
RELT 318	New Religious Movements in Africa	2
RELT 329	Islamic Studies	2
RELT 333	Sociology of Religion	2
RELT 334	African Theological Thought	2
RELT 335	Issues in Ecumenism	2
RELT 360	Contemporary Themes in Christian Theology	2
RELT 380	Philosophy of Religion	2
RELT 389	Issues in Religion and Science	2
RELT 316	Introduction Research Methods in Religious Studies	2
RELT 416	Research Methods in Religious Studies	2
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2
RELT 426	Writings and Philosophy of Ellen G White	2
Total		61

COGNATE COURSES

8 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
LITE 453	Literature Studies of the English Bible	3
HIST 411	Selected Topics in Modern African History	3
Total		8

ELECTIVE COURSES

4 Credits

Code	Course Title	Credits
RELB 311	Introduction to Biblical Archaeology	2
RELT 331	Phenomenology of Religion	2
RELT 338	Religion and State in Africa	2

MINOR IN RELIGION

SUMMARY

Core	23
Elective	6
Total	29 Credits

Note: Religion minors take RELB 320 in place of RELB 220, RELT 423 and RELT 424 in place of RELT 207, and RELH 180 in place of RELH 155.

CORE COURSES 23 Credits

Code	Course Title	Credits
RELB 304	Studies in Daniel	2
RELB 305	Studies in Revelation	2
RELB 320	Life and Teachings of Jesus Advanced	3
RELH 180	History of the Adventist Church	2
RELT 130	African Traditional Religions	2
RELT 218	Comparative Religions	2
RELT 334	African Theological Thought	2
RELT 380	Philosophy of Religion	2
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2
RELT 426	Writings and Philosophy of Ellen G. White	2
Total		23

ELECTIVE COURSES 6 Credits

Code	Course Title	Credits
RELB 202	Law and Writings of the Old Testament	3
RELB 274	Prophets in Israel I	2
RELB 275	Prophets in Israel II	2
RELB 311	Introduction to Biblical Archeology	2
RELB 350	Biblical Hermeneutics	2
RELB 434	Acts and Epistles I	2
RELB 435	Acts and Epistles II	2

Bachelor of Arts in THEOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	MATH100	Fundamentals of Mathematics	3	0	3	HLED 110	Health Principles	1	0	1	
	PSYC 101	Introduction to Psychology	2	0	2	RELP 116	Church Worship and Music	2	0	2	
	RELH 180	History of Adventist Church	2	0	2	ENGL113	Speech Communication	1	0	1	
	RELB 110	Biblical Backgrounds	2	0	2	PHYS 100	Concepts of Physical Science	2	0	2	
	OFTE 120	Keyboarding	0	0	0	ACCT 110	Bookkeeping and Accounting	2	0	2	
	RELP 114	Biblical Spirituality	1	0	1		Vocational Skills	1	0	1	
	RELT 130	African Traditional Religions	2	0	2	RELT 218	Comparative Religions	2	0	2	
	RELP 140	Principles of Church Growth	2	0	2	RELP 275	Marriage and Family	2	0	2	
	RELT 468	Research Project	3	0	3	BIOL 105	Human Biology	2	0	2	
Total			20	0	20	Total			17	0	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELP 221	Homiletics I	2	0	2	RELP 222	Homiletics II	2	0	2	
	BIBL 201	Elementary Greek I	3	0	3	BIBL 202	Elementary Greek II	3	0	3	
	RELB 274	Prophets of Israel I	2	0	2	RELB 275	Prophets of Israel II	2	0	2	
	RELB 202	Law and Writings of The Old Testament	3	0	3	RELP 215	Literature Evangelism	1	0	1	
	ENVI 227	Environmental and Society	2	0	2		Elective	2	0	2	
	AGRI 105	Principles of Agricultural Technology	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	HIST 111	Concepts of World Civilization	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	MGMT 103	Basic Management and Entrepreneurship Skills	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	RELP 235	Foundations of Youth Ministry	1	0	1	
	RELT217	Introduction to Research Methods in Religious Studies	2	0	2	RELP 284	Stewardship and Self Reliance	2	0	2	
Total			21	0	21	Total			19	0	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELB 304	Studies in Daniel	2	0	2	RELB 305	Studies in Revelation	2	0	2	
	BIBL 301	Intermediate Greek I	2	0	2	BIBL 302	Intermediate Greek II	2	0	2	
	RELH 314	History of The Christian Church I	2	0	2	RELH 315	History of the Christian Church II	2	0	2	
	RELP 307	Personal and Public Evangelism	2	0	2	RELB 320	Life and Teaching of Jesus	3	0	3	
	RELB 350	Biblical Hermeneutics	2	0	2	RELP 310	Field School of Evangelism	1	0	1	
	RELT 329	Islamic Studies	2	0	2		Elective	2	0	2	
	RELP 335	Church Leadership and Administration	2	0	2	RELT 389	Issues in Religion and Science	2	0	2	
	RELP 385	Pastoral Counseling and Psychology	2	0	2	RELT 316	Introduction to Research Methods in Religious Studies	2	0	2	
	RELP 390	Special Needs Ministry	1	0	1	RELP 340	Introduction to Mission Studies	2	0	2	
	Total			17	0	17	Total			18	0
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELP 440	Introduction to Pastoral Ministry	3	0	3	RELB 435	Acts and Epistles II	2	0	2	
	RELB 434	Acts and Epistles I	2	0	2	RELT 426	Writings and Philosophy of E. G. White	2	0	2	
	RELT 423	Christian Doctrines I	2	0	2	RELP 462	Ministerial Practicum II	1	0	1	
	LITE 453	Literary Studies of The English Bible	3	0	3	HIST 411	Selected Topics of Modern Africa History	3	0	3	
	RELP 416	Ministerial Practicum I	1	0	1	RELP 450	Strategic Planning	2	0	2	
	BIBL 421	Hebrew I	2	0	2	RELT 424	Christian Doctrines II	2	0	2	
	RELT 460	Contemporary Social Issues	2	0	2	BIBL 422	Hebrew II	2	0	2	
	RELH 481	History of the Adventist Church in Kenya	2	0	2	RELP 402	Introduction to Chaplaincy	1	0	1	
						RELT 480	History of Christian Church in Africa	3	0	3	
Total			17	0	17	Total			18	0	18

Bachelor of Arts in RELIGION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2
	MATH 100/ COSC 111	Foundations of Mathematics/ Computational Mathematics I	3	0	3	HLED 110	Health Principles	1	0	1
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	ENGL 106	Speech Communication	1	0	1
	RELB 110	Biblical Backgrounds	2	0	2	PHYS 100	Concepts of Physical Science	2	0	2
	OFTE 120	Keyboarding	0	0	0	RELH 180	History of Adventist Church	2	0	2
	RELT 130	African Traditional Religions	2	0	2	RELT 218	Comparative Religions	2	0	2
	RELT 480	History of Christian Church in Africa	3	0	3	RELB 202	Law and Writings of Old Testament	3	0	3
	PEAC 107	Physical and Recreational Activities	1	0	1		Vocational Skills	1	0	1
	ACCT 110	Accounting and Bookkeeping	2	0	2		Minor	2	0	2
							Minor	2	0	2
	Total		18	0	18	Total		18	0	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELB 274	Prophets of Israel I	2	0	2	RELB 275	Prophets of Israel II	2	0	2
	ENVI 227/ CHEM 200/ TCED 231	Environmental and Society/ Environmental Science/ Safety Education	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	HIST 111	Concepts of World Civilization	2	0	2	BIOL 105	Human Biology	2	0	3
	AGRI 105	Principles of Agricultural Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2
	RELT 217	Introduction to Research Methods in Religious Studies	2	0	2		Minor	2	0	2
		Minor	2	0	2		Minor	2	0	2
		Minor	3	0	3		Elective	2	0	2
		Elective	2	0	2					
	Total		19	0	19	Total		16	0	16
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELB 304	Studies in Daniel	2	0	2	RELB 305	Studies in Revelation	2	0	2
	RELB 434	Acts and Epistles I	2	0	2	RELT 334	African Theological Thought	2	0	2
	RELB 350	Biblical Hermeneutics	2	0	2	RELB 435	Acts and Epistles II	2	0	2
	RELT 329	Islamic Studies	2	0	2	RELB 320	Life and Teaching of Jesus Advanced	3	0	3
	RELT 423	Christian Doctrines I	2	0	2	RELT 335	Issues in Ecumenism	2	0	2
	RELT 360	Contemporary Themes in Christian Theology	2	0	2	RELT 424	Christian Doctrines II	2	0	2
	RELT 333	Sociology of Religion	2	0	2	RELT 380	Philosophy of Religion	2	0	2
	RELH 314	History of The Christian Church I	2	0	2	RELH 315	History of The Christian Church II	2	0	2
		Minor	4	0	4	RELT 318	New Religious Movements in Africa	2	0	2
	Total		20	0	20	Total		19	0	19
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELT 468	Research Project	3	0	3		Minor	2	0	2
	RELT 426	Writings and Philosophy of E. G. White	2	0	2		Minor	3	0	3
	HIST 411	Selected Topics of Modern Africa History	3	0	3		Minor	3	0	3
	LITE 453	Literary Studies of The English Bible	3	0	3					
	RELT 389	Issues in Science and Religion	2	0	2					
		Minor	3	0	3					
		Minor	2	0	2					
	Total		17	0	17	Total		8	0	8

COURSE DESCRIPTION

BIBL 201 Elementary Greek I 3 Credits

This course, which is the first of a two-semester sequence, begins the emphasis on the mastery of the basic and elementary forms of New Testament Greek grammar, syntax, and vocabulary. It also introduces the student to the reading of some simple Greek texts.

BIBL 202 Elementary Greek II 3 Credits

The second of the two semester module continues the exploration and mastery of the basic forms of New Testament Greek grammar, syntax, and vocabulary. There is reading and translation of selected portions of the Greek New Testament. *Prerequisite: BIBL 201.*

BIBL 301 Intermediate Greek I 2 Credits

This course, the first of a two semester sequence is a study of New Testament Greek syntax at the intermediate level with an emphasis on the application of the primary text. The student is introduced to the reading and interpretation of passages from the New Testament Greek. *Prerequisite: BIBL 201.*

BIBL 302 Intermediate Greek II 2 Credits

This course, the second of a two semester sequence is a continuation of the exploration and mastery of the analysis of grammar forms, reading and exegesis of various passages in the New Testament. The student is required to submit an exegesis paper on a selected passage from the New Testament. *Prerequisite: BIBL 301.*

BIBL 421 Hebrew I 2 Credits

This course is a comprehensive introduction to the rudiments and theory of Biblical Hebrew phonology and morphology. In this section, the phonology of the Hebrew is to be mastered, and the students are introduced to the basic morphology of Hebrew substantives. Students begin to learn Hebrew vocabulary.

BIBL 422 Hebrew II 2 Credits

The course is a continuation of the study of Hebrew grammar and reinforces and expands on Biblical Hebrew phonology, morphology, syntax, use of lexicons, reading and translating of selected passages of the Hebrew Bible. Students are required to write an exegesis paper on selected prose portions of the Hebrew Bible. *Prerequisite: BIBL 421.*

RELB 110 Biblical Backgrounds 2 Credits

This course involves a consideration of the archaeological, cultural, geographical, and historical backgrounds of the Old and New Testaments. It traces the major elements of biblical history including the patriarchal period, the conquest and settlement of Palestine, the kingdoms of Israel and Judah, the Babylonian exile, the post-exilic period, and the New Testament era.

RELB 204 Old Testament Studies 3 Credits

This course involves a selected survey of the Old Testament themes such as creation, Abrahamic covenant, Exodus and the covenant at Sinai, the Israelite monarchy, prophecy in Israel and the restoration of Judah.

RELB 202 Law and Writings of the Old Testament 3 Credits

This course introduces the student to the Pentateuch and the "Writings" (historical books, Psalms, and Wisdom Literature) of

the Old Testament. It further leads the student to gain a deeper knowledge of events, key persons, themes, dates, locations, and related information about the Pentateuch and the Writings.

RELB 220 Life and Teachings of Jesus 2 Credits

This course is designed to help the student grasp the import of the ministry of Jesus Christ through a study of His life and teachings as recorded in the Gospels. RELB 220 is for general students but RELB 320 is for Theology and Religion majors.

RELB 274 Prophets of Israel I Credits

The course introduces the student to the phenomena of biblical prophets. It includes the role of the prophetic office in the Bible. The study includes the books of the writing prophets of the 8th and early 7th century B.C. Research paper may be required.

RELB 275 Prophets of Israel II Credits

The course is a second module on the study of the prophets and includes the books of the writing prophets of the late 7th century B.C. to the end of the prophetic canon. Research paper may be required. *Prerequisite: RELB 274.*

RELB 304 Studies in Daniel Credits

This course is designed to provide students with theological content, construction and interpretation of the imagery and symbols of the books of Daniel. Special attention is given to the books' apocalyptic nature. Research paper is required. *Prerequisite: ENGL 105.*

RELB 305 Studies in Revelation 2 Credits

This course is designed to provide students with theological content, construction and interpretation of the imagery and symbols of the books of Revelation. Special attention is given to the books' apocalyptic nature. Research paper is required. *Prerequisite: ENGL 105.*

RELB 311 Introduction to Biblical Archaeology 2 Credits

The course introduces the student to archaeological and ancient Near Eastern materials that have been discovered. It entails the study of history, geography, worship rituals, customs, cultural heritage, and the language of the people that shed light on Bible passages and lead to the proper and accurate interpretation of the Bible.

RELB 320 Life and Teachings of Jesus - Advanced 3 Credits

This course covers the life and teachings of Jesus and involves a survey of the socio-political and religious antecedents to the period of Jesus. It covers topics such as incarnation, baptism, temptation, call of the disciples, transfiguration, crucifixion, resurrection, ascension, miracles and parables. Research paper may be required. *Prerequisite: ENGL 105.*

RELB 331 New Testament Studies Credits

This course is a selected survey of the New Testament. It covers the Gospels of Luke and John specifically the incarnation, early life and the ministry of Jesus, His death and resurrection. It also involves a study of the books of Acts of the Apostles, Paul's First letter to the Corinthians, and First Timothy and the Epistle of James.

RELB 350 Biblical Hermeneutics Credits

The course involves a study of hermeneutical principles appropriate for the interpretation of Biblical texts. Issues arising

out of an Afrocentric reading of Scripture are also discussed. Research paper may be required.

RELB 434 Acts and Epistles I 2 Credits

This module is a survey of the books of Acts and the early Pauline Epistles; Galatians, I and II Thessalonians, I and II Corinthians and Romans. The course exposes the student to the beginnings of the Christian church. Research paper may be required.

RELB 435 Acts and Epistles II 2 Credits

This module provides for studies in the later Pauline Epistles, from the Prison and Pastoral Epistles followed by an introduction to Hebrews and the General Epistles. Research paper may be required. *Prerequisite: RELB 434.*

RELH 114 Introduction History of Christian Church History 3 Credits

The course is a survey of the history of the Christian church from its beginning, around A.D.1 to the rise of modern denominations. The study includes the apostolic origins, the era of the church father, medieval ages to the dawn of the Protestant Reformation. An attempt is made to emphasize the contribution made by the Protestant Reformation, and moves to the rise of modern denominations, the world-wide mission expansion.

RELH 155 Adventist Heritage 2 Credits

This course acquaints the student with the history of the Seventh-day Adventist Church from the Millerite Movement, in which it had its birth, to the present. This is a general requirement course designed for all students except for the Theology and Religion majors who take RELH 180 History of the Adventist Church instead.

RELH 180 History of the Adventist Church 2 Credits

This introductory course is a brief history of the Adventist Church. The missiological burden that propelled Adventism into every corner of the earth is discussed. This course is for Theology and Religion majors in place of RELH 155.

RELH 314 History of the Christian Church I 2 Credits

The course surveys the history of the Christian Church from its beginning, around A.D.1. The thrust of the course takes off from its apostolic origins to the dawn of the Protestant Reformation. An attempt is made to emphasize the contribution made by the early African church fathers.

RELH 315 History of the Christian Church II 2 Credits

The course is a continuation of History of the Christian Church I. It begins from the period of the Protestant Reformation, and moves to the rise of modern denominations, the world-wide mission expansion and the development of the ecumenical movement. *Prerequisite: RELH 314.*

RELH 114 Biblical Spirituality 1 Credit

A course is designed to develop understanding of and experience in the spiritual life. Biblical references to spiritual growth are examined with special reference to the responsibilities of ministry. Emphasis is on the development and maintenance of faith, habits of spiritual discipline, self-renewal, and personal devotion in the face of the pressures and problems of contemporary Christian service. The course explores spiritual growth programs, both for the minister and the local congregation.

RELH 116 Church Worship and Music 2 Credits

This course introduces students to the theological and practical elements of church worship and church music and assists the student to develop the skills and insights necessary to conduct and lead effective worship and music services in the local churches. The course also prepares students to be able to design and implement participatory Sabbath worship services, prayer meeting services and other services.

RELH 140 Principles of Church Growth 2 Credits

This course introduces students to the foundations and principles of Church growth. It deals with such specific topics as: meaning of Church growth, causes of Church growth, hindrances to Church growth, Planning for Church growth and contemporary issues in Church growth etc.

RELH 215 Literature Evangelism 1 Credit

This course involves the theory and practice of Literature Evangelism. The student engages in supervised practical literature evangelism for at least three months or 350 contact hours. The student is required to attend a minimum of 10 contact hours during the annual Literature Evangelism training conducted by the Adventist Church Publishing Departments in conjunction with UEAB Literature Evangelists Club. Grade is either Satisfactory (S) or Unsatisfactory (U).

RELH 221 Homiletics I 2 Credits

This course introduces the student to a study of the art of preaching and the preparation of a sermon. During the course the student is exposed to different types of preaching, and special emphasis is placed on Expository preaching.

RELH 222 Homiletics II 2 Credits

Emphasis is placed on mastering the art and craft of preaching, the recognition and delivery of the various forms that a sermon can take and the evaluation of sermons. In addition, classroom preaching and preaching for specific occasions is carried out. *Prerequisite: RELH 221.*

RELH 235 Foundations of Youth Ministry 1 Credit

The course involves selected studies in areas such as ministering to young people, youth leadership, and the possible effects or impact of the home, school, societal and church environments on the spiritual development of young people. Special attention is given to studying this subject from a multi-cultural perspective.

RELH 275 Marriage and the Family 1 Credit

This course explores the purpose for which God instituted marriage and seeks to help the student understand the fundamentals of marriage and the family, including the primary relationships. It also discusses the basics of family life, the cultural influences on the family, intimacy in marriage, conflict management in the family, and parent-child relationships, among other concepts. The course also introduces the student to gender issues. Areas to be explored are gender and sexuality; the cultural construction of gender; the psychology of sex roles; the ways gender shapes families, workplaces and other social institutions.

RELH 284 Stewardship and Self-Reliance 2 Credits

This course views stewardship and self-reliance as an integral part of living. It explores the contribution these concepts are able to make to an individual's lifestyle and exposes the Biblical principles that underpin them.

REL 307 Personal and Public Evangelism 2 Credits

This course exposes the student to the theory of personal and public evangelism and prepares the student to be conversant with various aspects of evangelism such as visitation, literature distribution, preaching and etc. A field component is offered off-campus in collaboration with regional church organizations. See RELP 310.

REL 310 Field School of Evangelism 1 Credit

The course exposes the student to the practical aspects of personal and public evangelism. Students are required to participate in a public evangelistic campaign as arranged by the Department and the host organization. Grade is either Satisfactory (S) or Unsatisfactory (U).

REL 335 Church Leadership and Administration 2 Credits

This course introduces the student to the various theories of leadership and planning. It acquaints and equips individuals with what is involved in regulating day to day church administration and the implementation of policy decisions.

REL 340 Introduction to Mission Studies 2 Credits

The course introduces students to the origin, purpose and practices of mission. It further equips them to be effective mission leaders. A term paper may be required.

REL 385 Pastoral Counselling and Psychology 2 Credits

This is a study of the pastor in the role of a counselor. Different types of current theories of counseling are surveyed, along with skills and practices carried out within the classroom in order to develop and sharpen the counseling techniques and skills needed for effective pastoral counseling within an African context.

REL 390 Special Needs Ministry 1 Credit

This course introduces the student to the special needs ministry of the Seventh-day Adventist Church. The course equips the student to identify and minister to people differently enabled with the intention of improving their quality of life.

REL 402 Introduction to Chaplaincy 1 Credit

The course is an introduction to pastoral ministry in special settings. Some of the institutions to be discussed include educational, prisons, armed forces, hospitals, rehabilitation centers, orphanages and work places. Legal aspects of the ministry are also considered. The student is prepared to serve in religious and secular settings and with clients of varied faiths.

REL 440 Introduction to Pastoral Ministry 3 Credits

The "call" to ministry is examined along with the response of the minister to expectations placed upon him/her by both the local church members and the church administrators. The minister as church administrator, a leader of worship, counselor, spiritual director and evangelist are also surveyed. Prerequisites: Junior standing or permission of the instructor.

REL 450 Strategic Planning 2 Credits

This course focuses on decision making and actions which determine whether an enterprise excels, survives or dies. The planning process seeks to make the best use of resources in a changing environment. It leads to the development of effective strategies to help achieve organizational objectives by focusing on preferred futures.

REL 461 Ministerial Practicum I 1 Credit

This course provides instruction in the principles of public prayer, Sabbath School teaching, the interpretative reading of Scripture, platform decorum, witnessing leadership, catering for children in divine worship, planning and conducting church meetings (e.g. youth, prayer, etc.). Evaluated practical pastoral duties in designated churches are included in the course requirements. Emphasis is placed on the SDA Church organization and the work of its officers. Effective leadership styles and qualities are introduced. *Prerequisites: RELP 221 and RELP 222 or permission of the instructor.*

REL 462 Ministerial Practicum II 1 Credit

This course is a continuation of Ministerial Practicum I. The student is introduced to the policies and constitutions of the Seventh-day Adventist Church, including the General Conference and its subsidiary entities. The student is expected to work in a practical pastoral setting, analyzing and synthesizing the various challenges and opportunities of ministry. *Prerequisite: RELP 461.*

REL 128 Adventist History and Philosophy 3 Credits

This course is designed to introduce the students to a brief history of the Adventist Church. The study includes the Millerite origins, major eras in the denominational growth up to modern times. It also involves an introductory study of the nature, history and teachings of the writings of Ellen G. White and principles that govern their interpretation. A position paper is required.

REL 130 African Traditional Religions 2 Credits

This course gives the student opportunity to understand the beliefs and practices that are found in the many African Traditional Religions. The course emphasizes the religious beliefs that encompass the totality of life in an African setting and community.

REL 131 African Traditional Religions 3 Credits

This course gives the student opportunity to understand the beliefs and practices that are found in the many African Traditional Religions. The course emphasizes the religious beliefs that encompass the totality of life in an African setting and community. A critical analysis of least a worldview in African Traditional Religions is explored and presented by the students.

REL 140 Introduction to Logic 3 Credits

This course is designed to introduce students to the basic principles of philosophical and logical reasoning. The general goal is to learn how to differentiate good from bad arguments. The approach is two-sided: (1) the analysis and classification of fallacies and (2) the analysis as well as the construction of valid arguments.

REL 207 Christian Beliefs 3 Credits

This course introduces the student to the fundamental beliefs of the Christian religion. Special emphasis is placed on the study of themes such as Revelation, Persons of the Godhead, Salvation, the Sabbath, the Sanctuary, the Spirit of Prophecy, and the Second Coming of Christ. Theology and Religion majors and minors do not take this course.

REL 216 Comparative Religions 3 Credits

The course is a study of the major religions of the world, namely Hinduism, Buddhism, Confucianism, Judaism, Christianity,

Islam, and African Traditional Religions. The course surveys distinctive beliefs and practices as they are taught and observed. Emphasis is on how these teachings, beliefs and practices are manifest in Africa and how they compare with Christianity.

RELT 218 Comparative Religions 2 Credits

The course is a study of the major religions of the world, namely Hinduism, Buddhism, Confucianism, Judaism, Christianity, Islam, and African Traditional Religions. The course surveys distinctive beliefs and practices as they are taught and observed. Emphasis is on how these teachings, beliefs and practices are manifest in Africa.

RELT 231 Phenomenology of Religion 3 Credits

The course emphasizes the experiential aspect and the things, which imply a relationship between a believer and the deity. Phenomenology of Religion is concerned with describing the religious phenomenon through the many phenomena in which religion is manifest. The course views religion as an activity, which comprises different components and traditions which all point to the same thing. A critical analysis by the students of at least two of the religious manifestations is required.

RELT 255 Introduction to Christian Ethics 2 Credits

The course covers the basic principles of a Christian ethic derived from the knowledge of God and their application to personal and sociopolitical problems, especially as they relate to the ongoing life and work of the Church in Africa.

RELT 280 Philosophy of Religion 3 Credits

The course is an introduction to the study of philosophy and religion. It is an investigation of the dynamics of faith and how it interfaces with human rationality. The course probes the implications of expressions such as *fides quaerens intellectum* (Faith seeking understanding) (Anselm) and *Credo ut intelligam* (I believe so that I may understand) (Augustine).

RELT 318 New Religious Movements in Africa 2 Credits

The course examines the root cause of religious proliferation in Africa. It surveys the underlying causes in African society and the African psyche that engender the need for new religious movements. The role of the so-called mission churches in this phenomenon is taken into consideration.

RELT 329 Islamic Studies 2 Credits

The course introduces the student to the background, history and the growth and development of Islam. The student is introduced to the life and works of Prophet Muhammad/ Mohamed. Emphasis is put on the beliefs and practices of Islam and teachings such as pillars of Islam, lifestyle and the general praxis of Islam in relation to society in a modern world.

RELT 321 Islamic Studies 3 Credits

The course introduces the student to the background, history and the growth and development of Islam. The student is introduced to the life and works of Prophet Muhammad/ Mohamed. Emphasis is put on the beliefs and practices of Islam and teachings such as pillars of Islam, lifestyle and the general praxis of Islam in relation to society in a modern world. A practical exposure should be undertaken by the class.

RELT 331 Phenomenology of Religion 2 Credits

The course emphasizes the experiential aspect and the things which imply a relationship between a believer and the deity.

Phenomenology of Religion is concerned with describing the religious phenomenon through the many phenomena in which religion is manifest. The course views religion as an activity which comprises different components and traditions which all point to the same thing.

RELT 333 Sociology of Religion 2 Credits

The thrust of the course proceeds from the argument that religion is an intimate activity found in all human societies. The student is given opportunity to examine the role, function, and position of religion in society. The role, function, and position of an individual believer in society is also presented.

RELT 334 African Theological Thought 2 Credits

This is a study of Christian theology in the African context. The course examines the background and environment that have shaped Christian theological thinking in Africa and surveys the contribution of African Christian theologians.

RELT 335 Issues in Ecumenism 2 Credits

The course examines the phenomenon of ecumenism in the light of modern religious pluralism. The course enables the student to understand the contributions of the ecumenical movement in the context of both the Roman Catholic Church and in particular the Protestant view. The Seventh-day Adventist view is duly considered.

RELT 336 African Theological Thought 3 Credits

This is a study of Christian theology in the African context. The course examines the background and environment that have shaped Christian theological thinking in Africa and surveys the contribution of African Christian theologians. A research paper on one African theologian is required.

RELT 330 Sociology of Religion 3 Credits

The thrust of the course proceeds from the argument that religion is an intimate activity found in all human societies. The student is given opportunity to examine the role, function, and position of religion in society. The role, function, and position of an individual believer in society is also presented. The student is required to undertake an analysis of the role of religion in the modern society.

RELT 338 Religion and the State in Africa 2 Credits

The course examines the interaction between religion and the state in Africa. Religion being an over-arching phenomenon is found among all state institutions and more often than not, stands ready to contribute in one way or another. The course seeks to identify the role of religion in this relationship.

RELT 360 Contemporary Themes in Christian Theology 2 Credits

The course offers a survey of some of the contemporary themes in Christian theology today. It deals with such issues as polygamy, divorce, women's ordination, gay marriage, justice and peace, etc.

RELT 380 Philosophy of Religion 2 Credits

The course is an investigation of the dynamics of faith and how it interfaces with human rationality. The course probes the implications of expressions such as *fides quaerens intellectum* (Faith seeking understanding) (Anselm) and *Credo ut intelligam* (I believe so that I may understand) (Augustine). The course also introduces the students to elements of critical thinking.

RELT 389 Issues in Religion and Science 2 Credits

This course is an introduction to some of the scientific issues on religion. The purpose is to allow the student to appreciate the relevance of science to religion. Emphasis is put on how science is to be understood within the context of religion.

RELT 217 Introduction to Research Methods in Religious Studies 2 Credits

This course is a study of the theories and methods of doing research in theological and religious fields. The course covers definition of research, research process, kinds of research, value of research, library and online resources, and referencing. It is a guided study into writing a major paper in theology. A major paper is required for this course. When necessary a deferred grade may be awarded. *Prerequisite: ENGL 105.*

RELT 418 New Religious Movements in Africa 3 Credits

The course examines the root cause of religious proliferation in Africa. It surveys the underlying causes in African society and the African psyche that engender the need for new religious movements. The role of the so-called mission churches in this phenomenon is taken into consideration. A term paper is required.

RELT 423 Christian Doctrines I 2 Credits

This course deals with systematic and orderly articulation of the major tenets of the Christian faith such as revelation and inspiration, God and the Trinity, the nature of Christ, the Holy Spirit, creation and the Sabbath. Emphasis is placed on the fundamental doctrines of the Seventh-day Adventist Church. A Research paper is required. *Prerequisite: ENGL 105.*

RELT 424 Christian Doctrines II 2 Credits

This course is a continuation of RELT 423 and deals with systematic and orderly articulation of the major tenets of the Christian teaching such as humanity, sin, salvation, church and last day events. A Research paper is required. *Prerequisite: RELT 423.*

RELT 426 Writings and Philosophy of Ellen G. White 2 Credits

The course involves the student in the study of the nature, history and teachings of the writings of Ellen G. White and principles that govern their interpretation. A research paper is required. *Prerequisite: ENGL 105.*

RELT 427 Christian Doctrines 3 Credits

This course is an overview of the major tenets of the Christian faith such as revelation and inspiration, God and the Trinity, the nature of Christ, the Holy Spirit, creation and the Sabbath, humanity, sin, salvation, church and last day events. Emphasis is placed on the fundamental doctrines of the Seventh-day Adventist Church. A Research paper is required.

RELT 435 Issues in Ecumenism 3 Credits

The course examines the phenomenon of ecumenism in the light of modern religious pluralism. The course enables the student to understand the contributions of the ecumenical movement in the context of both the Roman Catholic Church and in particular the Protestant view. The Seventh-day Adventist view is duly considered. A term on a current issues in ecumenism is required.

RELT 460 Contemporary Themes in Christian Theology 3 Credits

The course offers a survey of some of the contemporary themes in Christian theology today. It deals with such issues as polygamy, divorce, women's ordination, gay marriage, justice and peace, etc. An exploration by the student on at least two of the contemporary themes is required.

RELT 462 Science and Religion 3 Credits

This course provides an in-depth examination of the complex relationship between science and religion, exploring historical, philosophical, and contemporary perspectives. It aims to foster critical thinking and open dialogue about the intersections, conflicts, and potential harmony between these two influential domains of human understanding. The course is intended for students of sciences.

RELT 468 Research Project 3 Credits

This course requires a student to write a research project of not more than 30-50 pages' double spaced in the area of Biblical, Historical, Theological and Pastoral areas. The research will be supervised by an appointed lecturer and shall be defended before graduation. *Prerequisite: RELT217*

RELH 480 History of the Christian Church in Africa 3 Credits

This is a course on the survey of the development of Christianity on the African continent with emphasis on modern missions in Eastern Africa from the mid-19th century to the present. A study is done on the impact of the missionary movement on the modern Christian Church.

RELH 482 History of the Christian Church in Africa 2 Credits

This is a course on the survey of the development of Christianity on the African continent with emphasis on modern missions in Eastern Africa from the mid-19th century to the present. A study is done on the impact of the missionary movement on the modern Christian Church.



SCHOOL OF NURSING & HEALTH SCIENCES

DEPARTMENTS:

FOODS, NUTRITION AND DIETETICS | NURSING |
MEDICAL LABORATORY SCIENCES | PUBLIC HEALTH



School of Nursing & Health Sciences

DEAN- Villagomez, L., PhD.

Email:

PHILOSOPHY

Jesus is the healer of broken body, mind and spirit. He has commissioned us to continue in His healing ministry through education, service and research until He comes. The students in the school will be educated and trained to serve humanity as qualified health professionals in Medical Laboratory Science and Public Health with skills to identify diseases, promote good health, and prevent disease occurrence. They will also be proficient in providing spiritual comfort and hope and in teaching principles for better living within their communities.

MISSION

The mission of the school of health sciences is to prepare health professionals whose values are Christ-centered, and who are competent in the delivery of health care services, teaching and research.

VISION

The vision of the school of Health Sciences is to be a center of excellence in training health professionals who are committed to the diagnosis, prevention, restoration and promotion of health

OBJECTIVES

The graduates from the School of Health Sciences should be competent health care givers because they have received the best training service to God and humanity. They should be able to:

1. Apply a wholistic approach to their health practices in the diagnosis, prevention and control of disease and promotion of health.
2. Demonstrate professional responsibility towards their clients.
3. Utilize their knowledge in providing spiritual care as well as attending to the physical needs of their clients.
4. Conduct research that would improve the provision of health care services.
5. Assume leadership roles in healthcare.
6. Excel in training and educating healthcare givers, and equipping them with professional skills for safe and ethical practice.
7. Actively participate in the formulation, implementation and evaluation of health care policies.
8. Collaborate with other organizations and agencies in the delivery of health care.
9. Work effectively to fulfill the Sustainable Development Goal (SDGs).

DEGREES OFFERED BY THE SCHOOL

MASTERS

1. Master of Public Health (MPH)
2. Master of Science in Global Health
3. Master of Science in Nursing

BACHELORS

1. Bachelor of Science in Foods, Nutrition & Dietetics
2. Bachelor of Science in Fashion & Textile Design
3. Bachelor of Science in Medical Laboratory Sciences
4. Bachelor of Science in Nursing
5. Bachelor of Science in Public Health

MINOR

Minor in Public Health

FACULTY

Boor, F., MSc., PhD in progress, Head of Department
Ateka, E., BSc. MSc. in progress
Karoro, A., MSc. PhD
Lagat, E., BSc.
Maiyo, G., MSc., PhD in progress
Maweu, P., BSc.
Muchee, T., PhD.
Wanjala, N., MA.
Gitau, S., PhD.
Ndiku, H., DrPH
Wakoli, A., MPH.

Email: deansnhs@ueab.ac.ke

PHILOSOPHY

The Department of Foods, Nutrition and Dietetics operates on the UEAB worldview, which holds that God is the creator and sustainer of the universe and life and is the source of true knowledge. The entrance of sin caused man's alienation from God; therefore, the educative process in the Department of Foods, Nutrition and Dietetics seeks to restore man's relationship with God through the promotion of healthy lifestyle in terms of nutrition and fashion to promote human dignity as guided by three core Christian values of love, compassion and forgiveness. This approach leads learners into self-actualization and to discover and understand the truth through critical thinking and positive living.

MISSION

The mission of the Department of Foods, Nutrition and Dietetics is to provide and advance wholistic quality Christian education which develops men and women to be earnest seekers of truth and equip them with appropriate theoretical, technical, practical and scientific knowledge and skills for service to God and humanity.

VISION

The Department of Foods, Nutrition and Dietetics envisions being a center of excellence in higher education and research producing world class nutritionists/dietitians, nutrition/dietician technologists, nutrition/dietician technicians, fashion and textile designers and hotel managers equipped with moral values towards global competitiveness.

DEGREE OFFERED BY THE DEPARTMENT

1. Bachelor of Science in Foods, Nutrition and Dietetics
2. Bachelor of Science in Fashion and Textile Design
3. Bachelor of Science in Hotel and Hospitality Management
4. Minor in Foods, Nutrition and Dietetics
5. Minor in Fashion and Textile Design
6. Minor in Hotel and Hospitality Management

EXPECTED LEARNING OUTCOMES FOR FOODS, NUTRITION AND DIETETICS

At the end of the degree program in Nutrition and Dietetics, the student should be able to

1. Apply the knowledge, skills and attitudes commensurate with the practices of quality nutrition and dietetics in a range of settings including disaster and emergency situations.

2. Practice independent learning and reflective thinking in applying professional and technical skills to allow capacity for self-evaluation and management.
3. Demonstrate skills to practice in an ethical and professional manner in a changing work environment.
4. Demonstrate the ability to apply interdisciplinary approaches to the prevention, promotion of well-being and management of nutritional problems.
5. Demonstrate commitment to the nutrition and dietetic discipline including individual and collective professional development.
6. Provide leadership in solving problems related to nutrition and dietetics.
7. Serve as nutritionist/dietician, counselors, educators and researchers at county and national levels.
8. Apply relevant Biblical principles in dealing with clients and administering nutritional services.
9. Plan, implement, monitor, evaluate and report interventions in nutritional deficiencies, disaster and emergencies.
10. Pursue higher degrees in nutrition/dietetics profession.

EXPECTED LEARNING OUTCOMES FOR FASHION AND TEXTILE DESIGN

At the end of the degree program in Fashion and Textile Design, the student should be able to:

1. Explain the historical and philosophical foundations of clothing industry, design and merchandising in meeting human needs.
2. Demonstrate technical skills including quilting, weaving, crocheting, tailoring, apparel construction and fashion craft in designing costume and clothing for human consumption.
3. Illustrate fashion designs, forecasting, apparel sizing and fitting for social, spiritual, ceremonial and traditional functions.
4. Display the interior and upholstery designs in planning and organizing a place of meeting for private and public functions.
5. Compare and contrast the cultural aspects of clothing and modern ways of dressing.
6. Develop philosophical concepts and technical skills in designing, restoring, or recycling clothing and textile items.
7. Analyze and evaluate textile yarns and fibers for fabric construction for costing and marketing.
8. Observe professional ethics in manufacturing, construction, designing and distribution of fabrics and clothing.
9. Examine, create, and evaluate a variety of textile design applications suitable for clothing, fashion and textile items.
10. Apply relevant Biblical principles in manufacturing, construction, designing and distribution of fabrics and clothing.

EXPECTED LEARNING OUTCOMES FOR HOTEL AND HOSPITALITY MANAGEMENT

At the end of the degree program in Hotel and Hospitality Management, the student should be able to:

1. Manage hotel operations effectively.
2. Explain trends affecting the growth of hotel and hospitality industry.
3. Demonstrate the ability to prepare and serve wholesome quality food to meet various customer needs in the tourism industry for local and international communities.

4. Successfully lead out in organizing meetings, events, conventions and other hospitality related services.
5. Market hospitality products and services.
6. Apply professional ethics in discharging managerial and supervisory roles in the hotel and hospitality industry.
7. Apply internationally accepted legal principles in managing hospitality industry.
8. Plan and establish business related to hotel and hospitality industry.
9. Apply biblical principles in the overall management of the hospitality industry
10. Carry out appropriate research to promote, assess and innovate hotel and hospitality sector.
11. Pursue higher degrees in hotel and hospitality management and/or related fields.

ENTRANCE REQUIREMENTS

DIRECT ENTRY

Bachelor of science in Foods, Nutrition and Dietetics Program

In addition to meeting the minimum university requirements of an overall grade of C+ in the Kenya Certificate of Secondary Education (KCSE) or its equivalent, students seeking admission into Foods, Nutrition and Dietetics shall meet the following requirements:

The candidate must have passed with a minimum of grade C in the following subject cluster: Chemistry/physical sciences and English/Kiswahili, and C plain in Biology/Biological sciences and Mathematics/Physics.

Bachelor of Science in Fashion and Textile Design

In addition to meeting the minimum university requirements of an overall grade of C+ in the Kenya Certificate of Secondary Education (KCSE) or its equivalent, students seeking admission into Fashion and Textile Design shall meet the following requirements:

1. The candidate should also have a KCSE grade (or its equivalent) of C+ or better in any two of the following subjects: Chemistry, Biology, Home Science, Business, Agriculture, Mathematics, Computer Science and Geography.
2. A candidate holding a diploma in Fashion and Textile Design or Clothing and Textile from recognized institutions. In addition, a candidate must have a minimum of KCSE aggregate grade of C (plain)
3. A candidate holding a certificate and a diploma in Fashion and Textile Design or Clothing and Textile from recognized institutions.
4. Equivalent qualification from alternative systems of education and grading shall be authenticated by KNEC, TVET, CUE and other competent authorities.

Bachelor of science in Hotel Management

In addition to meeting the minimum university requirements of an overall grade of C+ in the Kenya Certificate of Secondary Education (KCSE) or its equivalent, students seeking admission into Hotel Management shall meet the following requirements:

1. The candidate should also have passed with a minimum grade of C+ in any two of the following subjects: English/Kiswahili, Chemistry, Biology, Home science, CRE, Physics, Business, Agriculture, Mathematics, Computer science and Geography.
2. A candidate holding a diploma in Hotel and Hospitality Management or related areas. In addition, a candidate must have a minimum of KCSE aggregate grade of C (plain).
3. Equivalent qualification from alternative systems of

education and grading shall be authenticated by KNEC, TVET, CUE and other competent authorities.

Interdepartmental Transfer

A student who wishes to transfer to a major in the department must have met the minimum entry requirements for admission into the program.

UPGRADING STUDENTS

This program is tailored to meet the needs of health professionals who hold diploma qualifications in related areas and who wish to upgrade to degree level, in Foods, Nutrition and Dietetics, Fashion and Textile Design and Hotel Management. Applicants must hold a diploma in related areas of study from recognized institutions. They must also be holders of valid licenses where applicable.

Credit Exemption

A student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton should submit an application for same to the department chairperson. The application must be accompanied by a CV, transcripts showing all the courses, grades from previous training, and course syllabi/outlines to facilitate the exemption. A minimum of 17 and a maximum of 45 credits may be exempted. The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking exemption.

REQUIREMENTS FOR GRADUATION

Bachelor of Science in Foods, Nutrition and Dietetics

1. A student must complete a minimum of 144 credits with a GPA of 2.25 and above
2. A GPA of 2.33 and above for the core requirements with no grade below C+.
3. A GPA of 2.33 and above for the cognates and no grade below C+

Bachelor of Science in Fashion and Textile Design

1. A student must complete a minimum of 143 credits with a GPA of 2.25 and above
2. A GPA of 2.25 and above for the core requirements and with no grade below C.
3. A GPA of 2.25 and above for the cognates and no grade below C

Bachelor of Science in Hotel and Hospitality Management

1. A student must complete a minimum of 133 credits with a GPA of 2.00 and above
2. A GPA of 2.25 and above for the core requirements with no grade below C.
3. A GPA of 2.00 and above for the cognates and no grade below C

Minor in Foods, Nutrition and Dietetics:

A student must complete 30 credits with a GPA of 2.33 and above with no grade below C+

Minor in Fashion and Textile Design:

A student must complete 35 credits with a GPA of 2.25 and above with no grade below C.

Minor in Hotel Management:

A student must complete 30 credits with a GPA of 2.25 and above and with no grade below C

COURSE REQUIREMENTS

BACHELOR OF SCIENCE IN FOODS, NUTRITION AND DIETETICS

SUMMARY

General Education Requirements	26
Core	86
Cognates	32
Total	144 Credits

Students taking Foods, Nutrition and Dietetics are exempted from the following General Education Requirement courses

Code	Course Title	Credits
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
HIST111/	Concepts of World Civilization/	2
HIST 119	Issues in Development studies	
AGRI 105	Principles of Agricultural Technology	2
LITE151/	Introduction to Literary Appreciation/	2
MUGR 100	Music Appreciation	
MGMT 103	Basic Management and Entrepreneurial Skills	2

GENERAL EDUCATION REQUIREMENT COURSES

26 Credits

Code	Course Title	Credits
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	2
RELT 255	Introduction to Christian Ethics	3
RELB 220	Life and Teachings of Jesus	2
EDUC 215	Introduction to Philosophy of Christian Education	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 108	Information Technology for Health Professionals	2
PSYC 101	Introduction to Psychology	2
COSC 111	Computational Mathematics I	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
Total		26

CORE COURSES

86 Credits

Code	Course Title	Credits
DTCS 100	Introduction to Nutrition and Dietetics	3
DTCS 340	Dietetics	3
DTCS 334	Nutrition Care Process	3

DTCS 336	Therapeutic Dietetics	3
DTCS 338	Nutrition in Disease Management	3
DTCS 360	Nutrition Education and Counseling	3
DTCS 366	Exercise Physiology and Sports Nutrition	2
DTCS 344	Leadership in Nutrition and Dietetics	3
DTCS 444	Quantity Foods, Purchasing and Production	3
DTCS 470	Clinical Attachment	5
DTCS 475	Community Practicum	5
FDNT 135	Food Hygiene and Safety	3
FDNT 140	Food Preparation Laboratory	1
FDNT 200	Food Biotechnology	3
FDNT 217	Food Preservation and Processing	3
FDNT 300	Meal Planning, Management and Service	3
NUTR 130	Life Skills	2
NUTR 110	First Aid	1
NUTR 234	Human Nutrition	3
NUTR 255	Nutrition in the Life Cycle	2
NUTR 290	Nutrition in Emergency	2
NUTR 303	Research Methods I	3
NUTR 304	Research Methods II (senior project)	2
NUTR 322	Primary Health care	3
NUTR 342	Nutrition in HIV and AIDS	2
NUTR 365	Nutrition Assessment and Surveillance	3
NUTR 369	Nutrition Anthropology	2
NUTR 403	Macronutrients	3
NUTR 404	Micronutrients	3
NUTR 417	Nutrition and Behavior	3
NUTR 461	Nutrition Epidemiology	3
Total		86

COGNATES

32 Credits

Code	Course Title	Credits
BIOM 113	Human Anatomy	4
BIOM 114	Human Physiology	4
BIOL 247	Medical Microbiology	4
CHEM 111	Introductory General Chemistry	4
CHEM 113	Principles of Organic and Biochemistry	4
CLSC 105	Medical Terminology	1
CLSC 252	Food, Microbiology and Parasitology	3
PHNL 202	Biostatistics in Public Health	3
PHEP 100	Principles of Epidemiology	2
CLSC 235	Introduction to Pharmacology and Pharmacognosy	3
Total		32

Note: A one-year internship shall be a requirement upon successfully completing the BSc. Degree program prior to registration by the Kenya Nutritionists and Dieticians Institute (KNDI)

BACHELOR OF SCIENCE IN FOODS, NUTRITION AND DIETETICS FOR UPGRADERS

SUMMARY

General Education Requirements	26
Core	67
Cognates	30
Total	123 Credits

Students upgrading from Diploma are exempted from the following Core Courses

Code	Course Title	Credits
DTCS 100	Introduction to Nutrition and Dietetics	2
FDNT 135	Food Hygiene and Safety	3
FDNT 140	Food Preparation Laboratory	1
NUTR 130	Life Skills	2
NUTR 110	First Aid	1
FDNT 217	Food Preservation and Processing	3
NUTR 290	Nutrition in Emergency	2
DTCS 475	Community Practicum	5
MGMT 103	Basic Management Entrepreneurial Skills	2
OFTE 120	Introduction to Keyboarding	0

Recommended Core Courses for challenge exam for students upgrading from Diploma

Code	Course Title	Credits
NUTR 255	Nutrition in the Life Cycle	2
PHNL 202	Biostatistics in Public Health	3
PHEP 100	Principles of Epidemiology	2

GENERAL EDUCATION REQUIREMENT COURSES

26 Credits

Code	Course Title	Credits
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	2
RELT 255	Introduction to Christian Ethics	3
RELB 220	Life and Teachings of Jesus	2
EDUC 215	Introduction to Philosophy of Christian Education	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
INSY 108	Information Technology for Health Professionals	2
COSC 111	Computational Mathematics I	3
SOCI 121	Introduction to Sociology	2
PYSC 101	Introduction to Psychology	2
Total		26

CORE COURSES

67 Credits

Code	Course Title	Credits
DTCS 340	Dietetics	3
DTCS 334	Nutrition Care Process	3
DTCS 336	Therapeutic Dietetics	3

DTCS 338	Nutrition in Disease Management	3
DTCS 360	Nutrition Education and Counseling	3
DTCS 366	Exercise Physiology and Sports Nutrition	2
DTCS 344	Leadership in Nutrition and Dietetics	3
DTCS 444	Quantity Foods, Purchasing and Production	3
DTCS 470	Clinical Attachment	5
FDNT 200	Food Biotechnology	3
FDNT 217	Food Preservation and Processing	3
FDNT 300	Meal Planning, Management and Service	3
NUTR 234	Human Nutrition	3
NUTR 303	Research Methods I	3
NUTR 304	Research Methods II (senior project)	2
NUTR 322	Primary Health care	3
NUTR 342	Nutrition in HIV and AIDS	2
NUTR 365	Nutrition Assessment and Surveillance	3
NUTR 369	Nutrition Anthropology	2
NUTR 403	Macronutrients	3
NUTR 404	Micronutrients	3
NUTR 417	Nutrition and Behavior	3
NUTR 461	Nutrition Epidemiology	3
Total		67

COGNATES

30 Credits

Code	Course Title	Credits
BIOL 113	Human Anatomy	4
BIOL 114	Human Physiology	4
BIOL 247	Basic Medical Microbiology	4
CHEM 111	Introductory General Chemistry	4
CHEM 113	Principles of Organic and Biochemistry	4
CLSC 105	Medical Terminology	1
CLSC 252	Food, Microbiology and Parasitology	3
PHNL 202	Biostatistics in Public Health	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	3
Total		30

BACHELOR OF SCIENCE IN FASHION AND TEXTILE DESIGN

SUMMARY

General Education Requirements	28
Core	94
Cognates	22
Total	143 Credits

Students taking Fashion and Textile Design are exempted from the following General Education Requirements

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3
BIOL 105	Human Biology	2
MGMT 103	Basic Management Entrepreneurial Skills	2
AGRI 105	Principles of Agricultural Technology	2
TCED 231	Safety Education	2
PHYS 100	Concepts of Physical Sciences	2

GENERAL EDUCATION REQUIREMENT COURSES**28 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	1
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
	Vocational Skills	1
Total		28

CORE COURSES**94 Credits**

Code	Course Title	Credits
FTXD 111	Fashion and Textile Design Career	2
FTXD 112	Fiber Yarn and Fabric Construction	3
FTXD 130	Creative Fashion Crafts Laboratory	3
FTXD140	Fabric Construction	2
FTXD 150	Fundamentals of Apparel Construction	3
FTXD 152	Principles of Apparel Construction	1
FTXD 200	History of Costume	3
FTXD 201	Fashion Illustration	3
FTXD 207	Quilting	1
FTXD 208	Costume Design	3
FTXD 212	Care and Maintenance of Textile	2
FTXD 214	History of Textiles	3
FTXD 230	Principles of Flat pattern Design	3
FTXD 235	Socio-Cultural Aspects of Clothing	2
FTXD 303	Research Methods	3
FTXD 304	Research Report	2
FTXD 315	Clothing Recycling	3
FTXD 316	Textile Analysis	3
FTXD 317	Interior Design	3
FTXD 318	Upholstery Design	3
FTXD 320	Principles of Fashion Design	3
FTXD 321	Apparel for Children and teenagers	3
FTXD 325	Principle of Apparel Techniques	3
FTXD 330	Flat Pattern Design	3
FTXD 360	Mass Apparel Manufacturing	2
FTXD 370	Creative Fashion Design	3
FTXD 375	Textile Color Applications	3
FTXD 380	Apparel Sizing and Fit	1
FTXD 390	Fashion Forecasting and Presentation	2

FTXD 409	Fashion Industry	3
FTXD 412	Computer Aided Design	3
FTXD 413	African Costumes	3
FTXD 418	Wardrobe Selection Management	2
FTXD 420	Seminar in Fashion and Textiles	1
FTXD 425	Tailoring, Techniques	3
FTXD 460	Fashion Marketing and Merchandising	3
FTXD 470	Fashion and Textile Design attachment	2
Total		94

COGNATES**22 Credits**

Code	Course Title	Credits
CHEM 111	Introductory General Chemistry	4
CHEM 114	Textile Chemistry	4
ECON 210	Principles of Microeconomics	3
MATH 113	Business Mathematics I	3
MGMT 130	Fundamentals of Management	3
STAT 285	Fundamentals of Biostatistics	3
PHEH 370	Occupational Health Safety	2
Total		22

BACHELOR OF SCIENCE IN FASHION AND TEXTILE DESIGN FOR UPGRADERS

This program is adapted to meet the needs of fashion and design professionals who hold diploma qualifications in Fashion, Design and Craft, Clothing and Textiles, Clothing and Technology, Fashion and Textiles, and who wish to upgrade to degree level while continuing in employment.

Recommended core courses for exemptions for students upgrading in Fashion and Textile Design Degree

Code	Course Title	Credits
MATH 113	Business Mathematics I	3
FTXD 130	Creative Fashion Crafts	3
FTXD 150	Fundamentals of Apparel Construction	3
FTXD 140	Fabric Construction	2
FTXD 207	Quilting	1
FTXD 235	Cultural Aspects of Clothing	2
OFTE 120	Keyboarding	0
INSY 107	Information Technology Today	2
Total		16

Recommended courses for challenge exam for students Fashion and Textile Design degree

A total of up to 9 credits can be taken by Challenge Exam

Code	Course Title	Credits
FTXD 200	History of Costume	3
FTXD 208	Costume Design	3
FTXD212	Care and Maintenance of Textile	2
FTXD 112	Fiber Yarn and Fabric Construction	3
FTXD 152	Principles of Apparel Construction	1
FTXD 230	Principles of Flat pattern Design	3

Note: Upgrading students in Fashion and Textile Design should follow the degree requirements as listed above.

BACHELOR OF SCIENCE IN HOTEL AND HOSPITALITY MANAGEMENT

SUMMARY

General Education Requirements	29
Core	65
Cognates	37
Total	131 Credits

Students taking Hotel and Hospitality Management are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
HLED 110	Health Principles	1
COSC 111	Computational Mathematics I	3
MGMT 103	Basic Management Entrepreneurial Skills	2
TCED 231	Safety Education	2

Students taking Hotel and Hospitality Management take the following course as a Cognate Course

Code	Course Title	Credits
FREN 103	Beginning French II	2

GENERAL EDUCATION REQUIREMENT COURSES

29 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100	Music Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107	Information Technology Today	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOC1 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1

FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		29

CORE COURSES

65 Credits

Code	Course Title	Credits
HTMG 101	Introduction to hotel and hospitality operations and management	3
HTMG 143	Introduction to Hotel Economics	3
HTMG 232	Food and Beverage Production	4
HTMG 233	Food and Beverage Service	4
HTMG 252	Front Office Operations Management	4
HTMG 253	House-keeping Operations and Management	4
HTMG 300	Industrial Attachment I	4
HTMG 301	Hospitality Service and Operations Management	3
HTMG 303	Research Methods I	3
HTMG 304	Research Methods II (Senior Project)	2
HTMG 311	Consumer Behavior and Service Marketing	3
HTMG 322	Facility and Property Management	3
HTMG 332	Marketing Hotels and Catering Services	3
HTMG 343	International Cuisines	2
HTMG 353	Human Resource Management for Tourism and Hospitality Industry	3
HTMG 360	Events and Conventions Management	3
HTMG 400	Industrial Attachment II	4
HTMG 422	Tourism Operations	3
HTMG 440	Health and Safety Regulations in Hospitality Industry	2
HTMG 450	Hospitality Law	3
HTMG 451	Seminars and contemporary issues in Hospitality industry	2
Total		65

COGNATES

37 Credits

Code	Course Title	Credits
CNST 140	Home Maintenance	2
FDNT 135	Food Hygiene and Safety	3
FDNT 140	Food Preparation Laboratory	1
NUTR 234	Human Nutrition	3
FTXD 317	Interior and Upholstery Design	3
FREN 104	Introduction to French Language	3
MATH 113	Business Mathematics I	3
STAT 200	Fundamentals of Biostatistics	3
MGMT 130	Fundamentals of Management	3
MKTG 115	Principles of Marketing	3
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
FREN 103	Beginning French II	2
Total		37

BACHELOR OF SCIENCE IN HOTEL AND HOSPITALITY MANAGEMENT FOR UPGRADERS

SUMMARY

General Education Requirements	25
Core	55
Cognates	31
Total	111 Credits

This program is intended to meet the needs of hospitality professionals who hold diploma qualifications in Foods and Nutrition, Tourism and Management, Hotel and Tourism Management, Catering, Housekeeping, Food and Beverage Production and any other hospitality related diploma recognized by relevant ministries of education who wish to upgrade to degree level while continuing in employment

Upgrading students are exempted from the following General Requirement Courses

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
HIST 111	Concepts of World Civilization	2
OFTE 120	Introduction to Keyboarding	0
PEAC 107	Physical and Recreational Activities	1
PSYC 101	Introduction to Psychology	2
	Vocational Skills	1

Upgrading Students take the following course as a Cognate Course

Code	Course Title	Credits
FREN 103	Beginning French II	2

Upgrading students are exempted from the following Core Courses

Code	Course Title	Credits
HTMG 101	Introduction to hotel and hospitality operations and management	3
HTMG 143	Introduction to Hotel Economics	3
HTMG 232	Food and Beverage Production	4
HTMG 233	Food and Beverage Service	4
HTMG 300	Industrial Attachment I	4

Upgrading students are exempted from the following Cognate Courses

Code	Course Title	Credits
FDNT 135	Food Hygiene and Safety	3
HTMG 252	Front Office Management	3
HTMG 253	House Keeping Operations and Management	4

Recommended courses for challenge exam for upgrading students in Hotel and Hospitality Management for a maximum of 10 Credits

Code	Course Title	Credits
NUTR 234	Human Nutrition	3
HTMG 301	Hospitality Service and Operations Management	3

HTMG 322	Facility and Property Management	3
HTMG 332	Marketing Hotels and Catering Services	3

GENERAL EDUCATION REQUIREMENT COURSES

25 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
EDUC 215	Introduction to Philosophy of Christian Education	2
BIOL 105	Human Biology	2
INSY 107	Information Technology Today	2
PHYS 100	Concepts of Physical Sciences	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
MUGR 100	Music Appreciation	2
AGRI 105	Principles of Agricultural Technology	2
Total		25

CORE COURSES

55 Credits

Code	Course Title	Credits
HTMG 232	Food and Beverage Production	4
HTMG 233	Food and Beverage Service	4
HTMG 252	Front Office Operations Management	4
HTMG 253	House-keeping Operations and Management	4
HTMG 301	Hospitality Service and Operations Management	3
HTMG 303	Research Methods I	3
HTMG 304	Research Methods II (Senior Project)	2
HTMG 311	Consumer Behavior and Service Marketing	3
HTMG 322	Facility and Property Management	3
HTMG 332	Marketing Hotels and Catering Services	3
HTMG 343	International Cuisines	2
HTMG 353	Human Resource Management for Tourism and Hospitality Industry	3
HTMG 360	Events and Conventions Management	3
HTMG 400	Industrial Attachment II	4
HTMG 422	Tourism Operations	3
HTMG 440	Health and Safety Regulations in Hospitality Industry	2
HTMG 450	Hospitality Law	3
HTMG 451	Seminars and Contemporary Issues in Hospitality Industry	2
Total		55

COGNATES

31 Credits

Code	Course Title	Credits
CNST 140	Home Maintenance	2
FDNT 135	Food Hygiene and Safety	3
FDNT 140	Food Preparation Laboratory	1
NUTR 234	Human Nutrition	3
FTXD 317	Interior and Upholstery Design	3
FREN 103	Beginning French II	2
FREN 104	Introduction to French Language	3
MATH 113	Business Mathematics I	3

STAT 200	Fundamentals of Biostatistics	3
ACCT 111	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
Total		31

MINOR IN FASHION AND TEXTILE DESIGN

SUMMARY

Core	34
Total	34 Credits

CORE COURSES 34 Credits

Code	Course Title	Credits
FTXD 111	Fashion and Textile Design Career	3
FTXD 150	Fundamentals of Apparel Construction and Fashion	1
FTXD 151	Fundamentals of Apparel Construction and Fashion Lab	3
FTXD 200	History of Costume	3
FTXD 201	Fashion Illustrator with Lab	3
FTXD 230	Principles of Flat Pattern Design	3
FTXD 260	Principles of Fashion Design	3
FTXD 317	Interior Design	3
FTXD 318	Upholstery Design	2
FTXD 330	Flat Pattern Design	3
FTXD 370	Creative Fashion Design	3
FTXD375	Textile Color Applications	1
FTXD 418	Wardrobe Selection	3
Total		34

MINOR IN FASHION AND TEXTILE DESIGN

SUMMARY

Core	30
Total	30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
FTXD 150	Fundamentals of Apparel Construction	3
FTXD 152	Principles of Apparel Construction	1
FTXD 200	History of Costume	3
FTXD 201	Fashion Illustration	3
FTXD 111	Fashion and Textile Design Career	3
FTXD 317	Interior Design	3
FTXD 418	Wardrobe Selection Management	2
FTXD 230	Principles of Flat pattern Design	3
FTXD 320	Principles of Fashion Design	3
FTXD 330	Flat Pattern Design	3
FTXD 370	Creative Fashion Design	3
Total		30

MINOR IN FOODS, NUTRITION AND DIETETICS

SUMMARY

Core	25
Cognates	8
Total	33 Credits

CORE COURSES 25 Credits

Code	Course Title	Credits
DTCS 100	Introduction to Nutrition and Dietetics	3
FDNT 135	Food Hygiene and Safety	3
DTCS 334	Dietetics	3
DTCS 336	Nutrition Care Process	3
DTCS 338	Therapeutic Dietetics	3
DTCS 340	Nutrition in Disease Management	3
FDNT 140	Food Preparation Laboratory	1
NUTR 365	Nutrition Assessment and Surveillance	3
NUTR 234	Human Nutrition	3
Total		25

COGNATE COURSES 8 Credits

Code	Course Title	Credits
BIOL 113	Human Anatomy	4
BIOL 114	Human Physiology	4
Total		8

MINOR IN HOTEL AND HOSPITALITY MANAGEMENT

SUMMARY

Core	22
Cognates	8
Total	30 Credits

CORE COURSES 22 Credits

Code	Course Title	Credits
HTMG 101	Introduction to hotel and hospitality operations and management	3
HTMG 232	Food and Beverage Production	4
HTMG 233	Food and Beverage Service	4
HTMG 252	Front Office Operations Management	4
HTMG 253	House-keeping Operations and Management	4
HTMG 322	Facility and Property Management	3
Total		22

COGNATE COURSES 8 Credits

Code	Course Title	Credits
CNST 140	Home Maintenance	2
FDNT 135	Food Hygiene and Safety	3
FTXD 317	Interior and Upholstery Design	3
Total		8

Bachelor of Science in FOODS, NUTRITION, AND DIETETICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOM 113	Human Anatomy	3	1	4	BIOM 114	Human Physiology	3	1	4
	CLSC 105	Medical Terminology	1	0	1	ENGL 106	Speech Communication	1	0	1
	DTCS 100	Introduction to Nutrition and Dietetics	3	0	3	FDNT 135	Food Hygiene and Safety	2	1	3
	COSC 111	Computational Mathematics I	3	0	3	INSY 108	Information Technology for Health Professionals	2	0	2
	ENGL 105	Writing Skills	3	0	3	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2
	FDNT 140	Food Preparation Laboratory	0	1	1	NUTR 110	First Aid	1	0	1
	PSYC 101	Introduction to Psychology	2	0	2	NUTR 130	Life Skills	1	1	2
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3
	SOCI 121	Introduction to Sociology	2	0	2	PHEP100	Principles of Epidemiology	2	0	2
	OFTE 120	Keyboarding	0	0	0					
	Total		19	2	21	Total		17	3	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOL 247	Basic Medical Microbiology	3	1	4	CHEM 113	Principles of Organic and Biochemistry	3	1	4
	CHEM 111	Introductory General Chemistry	3	1	4	CLSC 252	Food, Microbiology and Parasitology	3	0	3
	FDNT 200	Food Biotechnology	3	0	3	FDNT 217	Food Preservation and Processing	3	0	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	NUTR 234	Human Nutrition	3	0	3	NUTR 255	Nutrition in the Life Cycle	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	NUTR 290	Nutrition in Emergency	2	0	2
	NRSG 213	Pharmacology	3	0	3	PHDT 202	Biostatistics in Public Health	3	0	3
						RELT 255	Introduction to Christian Ethics	2	0	2
	Total		19	2	21	Total		20	1	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	DTCS 334	Nutrition Care Process	2	1	3	DTCS 338	Nutrition in Disease Management	2	1	3
	DTCS 336	Therapeutic Dietetics	2	1	3	DTCS 340	Dietetics	2	1	3
	FDNT 300	Meal Planning, Management, and Service	2	1	3	DTCS 360	Nutrition Education and Counseling	2	1	3
	NUTR 303	Research Methods I	3	0	3	DTCS 366	Exercise Physiology and Sports Nutrition	2	0	2
	NUTR 365	Nutrition Assessment and Surveillance	2	1	3	NUTR 322	Primary Health Care	2	1	3
	NUTR 403	Macronutrients	3	0	3	NUTR 304	Research Methods II	2	0	2
	DTCS 344	Leadership in Nutrition and Dietetics	3	0	3	NUTR 342	Nutrition in HIV and AIDS	2	0	2
						NUTR 404	Micronutrients	3	0	3
	Total		17	4	21	Total		17	4	21
INTER-SEMESTER						DTCS 470	Clinical Practicum	5	0	5
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	DTCS 444	Quantity Foods, Purchasing and Production	2	1	3	DTCS 475	Community Practicum	5	0	5
	NUTR 369	Nutrition Anthropology	1	1	2					
	NUTR 417	Nutrition and Behavior	3	0	3					
	NUTR 461	Nutrition Epidemiology	3	0	3					
	Total		9	2	11	Total		5	0	5

Bachelor of Science in FASHION AND TEXTILE DESIGN

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER						
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	ENGL105	Writing Skills	3	0	3	FTXD 112	Fiber Yarn and Fabric Construction	3	0	3		
	FTXD 111	Fashion and Textile Design Career	2	0	2	FTXD 130	Creative Fashion Crafts	2	1	3		
	FTXD 140	Fabric Construction	1	1	2	ENGL 106	Speech Communication	1	0	1		
	FTXD 150	Fundamentals of Apparel Construction	2	1	3	RELT 207	Christian Beliefs	3	0	3		
	FTXD 152	Principles of Apparel Construction	0	1	1	MGMT 130	Fundamentals of Management	3	0	3		
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2		
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2		
	RELH 155	Adventist Heritage	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2		
	OFTE 120	Keyboarding	0	0	0	HLED 110	Health Principles	1	0	1		
	PEAC 107	Physical and Recreational Activities	1	0	1							
	MATH 113	Business Mathematics I	3	0	3							
	Total			18	3	21	Total			19	1	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	CHEM 111	Introduction to General Chemistry	3	1	4	CHEM 114	Textile Chemistry	3	1	4		
	FTXD 200	History of Costume	2	1	3	FTXD212	Care and Maintenance of Textile	1	1	2		
	FTXD 201	Fashion Illustration	2	1	3	FTXD214	History of Textiles	3	0	3		
	FTXD 207	Quilting	0	1	1	FTXD 230	Principles of Flat Pattern Design	3	0	3		
	FTXD 208	Costume Design	2	1	3	FTXD 235	Socio-Cultural Aspects of Clothing	2	0	2		
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	STAT 285	Biostatistics	3	0	3		
	RELB 220	Life and Teachings of Jesus	2	0	2	ECON 210	Principles of Microeconomics	3	0	3		
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2							
	PHEH 370/ TCED 230	Occupational Health and Safety/ Industrial Safety	1	1	2							
	Total			16	6	22	Total			18	2	20
	3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
FTXD 303		Research Methods	2	1	3	FTXD 304	Research Report	1	1	2		
FTXD 315		Clothing Recycling	2	1	3	FTXD 325	Principles of Apparel Techniques	2	1	3		
FTXD 316		Textile Analysis	2	1	3	FTXD 330	Flat Pattern Design	2	1	3		
FTXD 317		Interior Design	2	1	3	FTXD 360	Mass Apparel Manufacturing	2	0	2		
FTXD 318		Upholstery Design	2	1	3	FTXD 370	Creative Fashion Design	2	1	3		
FTXD 320		Principles of Fashion Design	3	0	3	FTXD375	Textile Color Application	2	1	3		
FTXD 321		Apparel for Children and Youth	2	1	3	FTXD 380	Apparel Sizing and Fit	0	1	1		
						FTXD 390	Fashion Forecasting and Presentation	2	0	2		
Total			15	6	22	Total			13	6	19	
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	FTXD 409	Fashion Industry	3	0	3	FTXD 470	Fashion and Textile Design Attachment	2	0	2		
	FTXD 412	Computer Aided Design	3	0	3							
	FTXD 413	African Costumes	2	1	3							
	FTXD 418	Wardrobe Selection Management	1	1	2							
	FTXD420	Seminar in Fashion and Textiles	1	0	1							
	FTXD425	Tailoring Techniques	2	1	3							
	FTXD460	Fashion Marketing & Merchandising	3	0	3							
Total			15	3	18	Total			2	0	2	

Bachelor of Science in HOTEL AND HOSPITALITY MANAGEMENT

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HTMG 101	Introduction to Hotel and Hospitality Operations and Management	3	0	3	HTMG 143	Introduction to Hotel Economics	3	0	3	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	FDNT 135	Food Hygiene and Safety	3	0	3	
	MKTG 115	Principles of Marketing	3	0	3	ENGL 106	Speech Communication	1	0	1	
	ENGL 105	Writing Skills	3	0	3	RELT 207	Christian Beliefs	3	0	3	
	RELH 155	Adventist Heritage	2	0	2	INSY 107	Information Technology Today	2	0	2	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2			Vocational Skills	1	0	1
	OFT 120	Keyboarding	0	0	0	CNST 140	Home Maintenance	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1						
	FDNT 140	Food Preparation Laboratory	1	0	1						
	MATH 113	Business Mathematics I	3	0	3						
	Total			20	0	20	Total			15	0
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HTMG 232	Food and Beverage Production	4	0	4	HTMG 233	Food and Beverage Service	4	0	4	
	HTMG 252	Front Office Operations Management	4	0	4	HTMG 253	Housekeeping Operations and Management	4	0	4	
	ACCT 111	Fundamentals of Accounting I	4	0	4	ACCT 112	Fundamentals of Accounting II	4	0	4	
	AGRI 105	Principles of Agriculture Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	FREN 103	Beginning French II	2	0	2	FREN 104	Introduction to French Language	3	0	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 105	Human Biology	2	0	2	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
Total			20	0	20	Total			21	0	21
INTER-SEMESTER					HTMG 300	Industrial Attachment	4	0	4		
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HTMG 301	Hotel Operations and Management	3	0	3	HTMG 332	Marketing Hotels and Catering Services	3	0	3	
	HTMG 311	Consumer Behavior and Service Marketing	3	0	3	HTMG 353	Human Resource Management for Tourism and Hospitality Industry	3	0	3	
	NUTR 234	Human Nutrition	3	0	3	HTMG 343	International Cuisine	2	0	2	
	MGMT 130	Fundamentals of Management	3	0	3	HTMG 322	Facility and Property Management	3	0	3	
	STAT 200	Fundamentals of Biostatistics	3	0	3	FTXD 317	Interior and Upholstery Design	3	0	3	
	CLSC 254	Principles of Microbiology and Parasitology	3	0	3	HTMG 303	Research Methods	3	0	3	
	Total			18	0	18	Total			17	0
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HTMG 304	Senior Project	2	0	2	HTMG 400	Industrial Attachment II	4	0	4	
	HTMG 422	Tourism Operations	3	0	3						
	HTMG 450	Hospitality Law	3	0	3						
	HTMG 451	Seminars and Contemporary Issues in Hospitality Industry	2	0	2						
	HTMG 440	Health and Safety Regulations in Hospitality Industry	2	0	2						
	Total			12	0	12	Total			4	0

COURSE DESCRIPTIONS

DTCS 100 Introduction to Nutrition and Dietetics 3 Credits

An introduction to dietetics as a profession: educational requirements and career opportunities; orientation to the field of dietetics; role, responsibilities and relationships within the professions; and interrelations with other health professionals; standards and ethics of professional conduct among dietitians; the history of dietetics; modern dietetic practice; skills and competencies in modern dietetics; opportunities for interaction with dietetics practitioners will be offered.

DTCS 334 Nutrition Care Processes 3 Credits

Introduction to nutrition therapy; role of dietitians and other health professionals in the therapeutic process; application of the principles of dietetics: the nutrition care algorithm, critical thinking, steps in the nutrition care process: nutrition assessment, nutrition diagnosis, nutrition intervention, nutrition monitoring and evaluation. Design and implementation of nutrition care strategies; evaluation of client response and progress. Must go for 8-week practicum in a county referral hospital. The practicum is 1 credit hour, equivalent to six-hour practicum. *Prerequisite: DTCS 334.*

DTCS 336 Therapeutic Dietetics 3 Credits

Examining the interrelationships of physiology, biochemistry, and nutrition as related to medical nutrition therapy (MNT). Emphasizes general nutritional status assessment and the role of nutrition in preventing and treating diseases/disorders: malnutrition, obesity, disordered eating, anemia, cardiovascular disease, chemical dependency, psychiatric disorders, drug-nutrient interactions. Role of nutrition in preventing and treating disease/disorder: diabetes mellitus, hypoglycemia, renal, liver, biliary, neurological and dysphagia. Addresses cancer, upper and lower gastrointestinal (GI) disorders, exocrine pancreas, pulmonary disease, metabolic stress, acquired immune deficiency syndrome (AIDS), rheumatic disorders, transplantation, parenteral and enteral nutrition. Explores the relationship between MNT and immunity and genetics. Must go for 8-week practicum in a county referral hospital. The practicum is 1 credit hour, equivalent to six-hour practicum. *Prerequisite: DTCS 336.*

DTCS 338 Nutrition in Disease Management 3 Credits

Nutrition support for various disease conditions: diabetes mellitus; disease of the heart and blood vessels; renal diseases; cancer; HIV and AIDS, and other infectious diseases; medical stress due to infections, surgery and burns; nutrition assessment in specific disease states: planning and preparing appropriate diets for specific disease states; regulatory approaches to non-communicable diseases: legal and policy frameworks; case studies. Must go for 8-week practicum in a county referral hospital. The practicum is 1 credit hour, equivalent to six-hour practicum. *Prerequisite: DTCS 338.*

DTCS 340 Dietetics 3 Credits

Basic terminologies, enteral and parenteral nutrition addressed; supervised experience in patient care areas of designated health care facilities; assigned experiences are designed to complement and reinforce the knowledge gained in advance nutritional care; emphasis on staff performance with students functioning as staff members in patient care and nutrition education corresponding with community nutrition; role of nutrition education in patient care; methodologies and approaches in nutrition education; communication in education;

development of educational tools and materials; behaviors change concept; application of behavioral theories in behavior communication; discussions on the care process challenging cases using practical examples. Must go for 8-week practicum in a county referral hospital. The practicum is 1 credit hour, equivalent to six-hour practicum. *Prerequisites: NUTR 234, CLSC 105 and NRS 213.*

DTCS 360 Nutrition Education and Counseling 3 Credits

Theories, skills and methods in nutrition and health education; identification of objectives for individual and group nutrition interventions for different age levels; selection of techniques, tools and resources. Translation of scientific nutrition literature for the lay public; verbal and written communication skills are emphasized; principles of counseling; counseling process; nutrition counseling techniques; designs and implementation of nutrition counseling. Approaches used in nutrition education messages role of a nutrition educator; the problems and potential of nutrition education planning implementation, management of nutrition education programs. Channels of communicating nutrition education messages. The role of other stakeholders in nutrition education. Nutrition advocacy. Case studies of successful nutrition education programs. Nutrition health education and community mobilization sensitization. Must go for 8-week practicum in a county referral hospital. The practicum is 1 credit hour, equivalent to six-hour practicum. *Prerequisite: DTCS 338.*

DTCS 366 Exercise Physiology and Sports Nutrition 2 Credits

This course provides a basic preparation for students' leadership in exercise programs. It is hinged on the growing evidence on the role physical activity and nutrition may play in the prevention and management of chronic diseases. *Prerequisite: NUTR 234.*

DTCS 344 Leadership in Nutrition and Dietetics 3 Credits

Leadership skills and styles and types leadership; philosophy and ethics related to leadership and professional practice; leadership traits; effective leadership: competencies and qualities of effective leaders; functions of a leader; behavioral and situational approaches to leadership; management and leadership; alternative leadership styles; action-centered leadership; vision and work life of leaders; leaders and decision making. Professional competencies needed for career entry and advancement in nutrition and dietetics; an overview of appropriate means of delivery of professional services for a variety of needs; professional behavior: ethics, academic integrity and principles of professional practice, successful professionals, qualities and characteristics. *Prerequisite: DTCS 334.*

DTCS 444 Quantity Foods, Purchasing and Production 3 Credits

This course explores techniques and tools of food production and management as practiced in large food systems. It teaches skills on work distribution on how to manage various components in a food service facility such as kitchen department, the front of the house department, the back of the house department, the banquet department, and the advertising and marketing department. The course goes further in showing how to enhance profits, train employees, conduct interviews, analyze financial statements, clarify marketing strategies, acquire equipment, and handling of staff meetings. Students are exposed to real life experiences of management of various components. A field trip to relevant food service facilities to have a hands-on experience. *Prerequisite: DTCS 344.*

DTCS 470 Clinical Attachment**5 Credits**

Supervised experience in a clinical facility employing nutritionists and dieticians (e.g. hospital); students will be placed for 12 weeks (three months) in various institutions with clinical nutrition component in the country; students will be assigned specific tasks or duties by the host institution; students maintain a diary of their daily activities; final reports compiled based on attachment experience; students report their experience through seminar. One credit hour is equivalent to 480 hours which translate to 12 weeks in host institution. *Prerequisites: DTCS 340, DTCS 360, FDNT 322 and NUTR 255.*

DTCS 475 Community Practicum**5 Credits**

Students will be involved in professional practice in the community at nutritional settings. The community affiliation includes projects, presentation to the community, research, screening events, associated with clinical instructors, community nutrition events for a period of 12 weeks (three months). While at the field, students will be evaluated by the immediate supervisor using guidelines supplied by the department. The instructor will visit the student while at the field. After the field work, the student will write a report on all activities engaged in with the necessary analyzes and do oral presentation to departmental faculty, senior students and invited guests. One credit hour is equivalent to 480 hours which translate to 12 weeks. *Prerequisites: DTCS 470, NUTR 290, NUTR 365 and NUTR 461.*

FDNT 115 Cooking**1 Credit**

This course is designed to meet the needs of students in other disciplines other than Foods and Nutrition. It offers the basic skills in food preparation, stresses the observation of sanitation in the kitchen environment and acquaints students with the equipment and terminologies used in food preparation. It also furnishes students with entrepreneurial skills appropriate for home-based business (This is a three-hour laboratory).

FDNT 120 Basic Cake Preparation and Cake Decoration**1 Credits**

This course is designed to meet the needs of students in Family and Consumer Sciences and also from other disciplines. The purpose of this course is to offer basic skills in cake preparation and decoration for different occasions. The students are equipped with the major essentials of cake decoration, which includes: icing consistency, correct bag position, and pressure control. Various decorating tips and techniques are learned such as: making shapes, figure piping, and flower making. In addition, the course also consists of entrepreneurial skills appropriate for home-based business (This is a three-hour laboratory).

FDNT 135 Food Hygiene and Safety**3 Credits**

Covers principles of industrial food production, types of food hazards and potential hazards along the food supply chain, hazard analysis (HACCP, SSOP), international and national food standards (FDA, CODEX alimentariums, EUREPGAP and ISO 9000 series, ISO 22000; ISO 8000 (OHSAS) and ISO 14000), public health, legislation in relation to the consumer and food industries, emphasis on food hygiene at institutional level and Public Health Act, foods, drugs and chemical substances act. (This course consists of a 1 credit hour laboratory, equivalent to 3-hour laboratory practical.

FDNT 140 Food Preparation Laboratory**1 Credit**

This practical course is designed to equip students with the knowledge and skills required in the selection and preparation

of different foods so as to ensure nutrient retention and quality. It offers basic skills in food preparation, measuring techniques, cutting techniques, cooking techniques cooking terminologies and garnishing techniques. Students will also be introduced to abbreviations that are used in cooking and how to read and interpret different styles of recipes. Emphasis is on appropriate ways of safe food handling practices during preparation and storage. This is a three-hour laboratory.

FDNT 200 Food Biotechnology**3 Credits**

Definitions; biotechnology and traditional fermented foods, contribution of modern biotechnology to the improvement on traditional fermented foods; enzymes in food processing and new products development, impact of biotechnology on food flavor and color industry; plant biotechnology and genetically modified foods; meat quality improvement through biotechnology applications; biotechnology and food safety; public perception of genetically modified foods. This course consists of a three-hour laboratory. *Prerequisite: NUTR 234.*

FDNT 217 Food Preservation and Processing**3 Credits**

Diversity and quality of food materials; quality of raw food materials; deterioration of food materials: cases, effects, and control. Processing and preservation techniques: energy input (heat, irradiation, microwaves, pressure), temperature reduction (chilling, freezing), water removal (concentration, evaporative drying, freeze drying), biological methods (acid and alcohol fermentation, malting), chemical methods (additives, smoking). Nutrient loss and process optimization; packaging and storage. This course consists of a three-hour laboratory. *Prerequisites: FDNT 136 and CLSC 252 (A field trip is required).*

FDNT 300 Meal Planning, Management and Service**3 Credits**

This course explores techniques and tools of meal planning, production and management for the family as well as large food systems, considering goals, values and resources. The course emphasizes food service: table appointments, table setting, styles of food service, table etiquette, food costing and food buying practices as well as time management. It teaches management processes, as well as managing various components in a food service facility. The course goes further in showing how to enhance profit, train employees, conduct interviews, analyze financial statements, clarify marketing strategies, acquire equipment's and handing of staff meetings. This course consists of a three-hour laboratory. *Prerequisites: FDNT 135, FDNT 140 and BIOL 245. (A field trip is required).*

FTXD 111 Fashions and Textile Design Career**2 Credits**

This course is an overview of career opportunities within the fashion industry, with specific guidelines to assist students who are looking for ways to direct their interests and talents. There is emphasis on the growth and development of Fashion and Textile Design as a profession. Students are exposed to professionalism, accountability, and the responsibility for lifelong learning. Field trip is required.

FTXD 112 Fiber, Yarn and Fabric Construction**3 Credits**

This course is intended to expose students to the composition and chemical properties of natural and man-made textile fibers; relations to certain structure and physical characteristics; microscopy and analysis of fibers. Analysis of the relationship between the fiber structure; composition properties and performance characteristics of fibers, yarns and fabrics. Principles of fiber yarn and fabric construction, color and duration and finishes.

FTXD 130 Creative Fashion Crafts Laboratory 3 Credit

This course exposes students to basic creative skills in Clothing and Textiles. These include knitting, crocheting, macrame, and beadwork as pertaining to ancient and modern methods of textile construction.

FTXD140 Fabric Construction 2 Credits

The purpose of the unit is to impart students with the attitude, knowledge and skills necessary to construct fabrics using diverse techniques such as weaving, knitting, bonding, tufting, crocheting and braiding among others.

FTXD 150 Fundamentals of Apparel Construction 3 Credits

The purpose of this course is to equip the learner with the knowledge, attitude and necessary skills for garment construction. The students will focus on: Introduction to fundamentals of apparel construction. Sewing equipment; measuring equipment, cutting equipment, marking equipment. Pressing techniques and their equipment: pressing boards, iron, and press cloth. Sewing machines, parts and functions, faults & remedies. Principles and techniques of fabric preparation. Hand and machine stitches. Seams and seam edge finishes. Control of fullness.

FTXD 152 Principles of Apparel Construction 1 Credit

The purpose of this course is to equip the learner with the knowledge, attitude and necessary skills for garment construction. The students will focus on: Sleeves: sleeve less finish, set in sleeve with, a) gathers, b) standard, raglan sleeve, kimono sleeve. Finishes for sleeves: self-hemmed edge, cuffed sleeve, casing sleeve, Neckline with facings. Collars. Openings and fastenings buttons, zips, press buttons, collars: flat collars, standing collars, roll collars, waistbands: shaped waistband, faced waistband, Pockets. Hems. Support fabrics. Sample garment from a muslin shell.

FTXD 200 History of Costume 3 Credits

This course is a chronological study of costumes in selected societies including technology aesthetics, social organizations, ritual stability and change. Emphasis is on technological and cultural factors affecting dress and conservation of textiles. In the laboratory the emphasis will be to make an attire like what people used to wear in the past. Any additional creativity is encouraged due to new technology as a way to improve the appearance of a garment made.

FTXD 201 Fashion Illustration 3 Credits

The purpose of this course is to equip the learner with the knowledge, attitude and necessary skills for garment construction. This course focuses on: Design brief. Elements and principles of design. Proportion and foreshortening Tonal and textural drawing techniques. Analyzing the figure, Figure proportions, and creating figure templates. Drawing the eyes, nose, ear, mouth, head, faces and hairstyles. Drawing the hands and feet. Drawing different poses. Drawing garments, collar, sleeves, and skirts. Bodice and blouses, hats, belts, scarfs, bags, and shoes. Use of different media in illustration silhouette; color pencils, water colors, pantone and copic markers, collage of different prints, lace, chiffon, sheer fabrics. Drawing different garments on the figures. Development and presentation of portfolio, inspiration board and garment.

FTXD 207 Quilting 1 Credit

This course is a vocational skill designed for students majoring in Fashion and Textile Design as well as students majoring in

other areas. It is mainly a practicum course designed to expose students to methods of selecting and fitting fabric pieces in different colors and designs to produce an appealing quilt. Students learn the skills of hand stitch as well as machine stitch to be able to produce a desirable quilt. The course furnishes students with entrepreneurial skills appropriate for business. *Prerequisite: FTXD 111.*

FTXD 208 Costume Design 3 Credits

This course is designed to equip the students with knowledge on developing self-confidence and skills through thought, imagination, translation and accuracy in the process of costume design. Learners are inspired to develop their creativity, and use various media to showcase various designs. It will cover concepts such as elements and principles of design; construction of the basic blocks; pattern adaptations and manipulations; fashion drawing; fabric layout; design costing.

FTXD 212 Care and Maintenance of Textiles 2 Credits

This course will equip the students with skills and knowledge on care and maintenance of textile products. The students will learn; classification of textiles for laundry work, natural and man-made fabric's properties, soiling matter on fabrics, cleaning materials used on laundry work, water soap and other detergents. Laundry work agents and equipment, laundry work processes, stain removal; International care labeling home and commercial dry cleaning

FTXD 214 History of Textiles 3 Credits

To give insight to the learner on the evolutionary process of producing and using textiles across the world, how and why they are used, as well as their influence on past and contemporary fashion trends

FTXD 230 Principles of Flat Pattern Design 3 Credits

The purpose of this course is to introduce the learner to the principles and techniques of producing garment patterns using flat pattern methodology. Introduction on flat pattern designs; History of flat pattern design, Comparative methods of pattern designs; Draping, drafting and flat pattern. Taking individual body measurements using tape measure. Pattern Instructions; The importance of pattern instructions and notching theory, Pattern making rules; principles of pattern making, cutting, development and formula. Drafting equipment. Pattern Drafting and Development in quarter and full scale; basic, working and final pattern blocks. Tailored Skirt Block; Bodice Block, Sleeve Block, Dress Block and Trouser Block. Dart principles and perfecting patterns; Single dart, combined dart, Perfecting and completing patterns, Seam allowances and seam lines. Dart manipulation: pivot and slash methods. Drafting and garment making of a Muslin Shell using individual measurements.

FTXD 235 Socio-Cultural Aspects of Clothing 2 Credits

This course is designed to equip the students with a broad view in the field of socio-cultural aspects of clothing. Considerations will be given to: characteristics of culture and social groups, clothing as an aspect of culture and adornment in non-verbal communication, the role of clothing in group organizational behavior and influence of political, economic, social and technological factors (PESTEL) on dress.

FTXD 303 Research Methods 3 Credits

This course introduces students to the principles, methods and tools of research in the area of Fashion and Textile Design. The emphasis is placed on practical applications of basic research techniques such as formulation of research problem and objectives, development of theoretical and conceptual

framework, identification of appropriate methods to be used in data collection and analysis, making judgement on hypothesis and coming up with conclusions and recommendations. Students are required to develop a research proposal and data collection instrument at the end of the section. *Prerequisites: ENGL 105 and BIOL 285.*

FTXD 304 Research Report 2 Credits

This course provides students with an opportunity to put into practice what was learned in Research Methods by actively engaging in scientific research. Each student is required to design a research project and perform the research independently, while under the guidance of a supervisor. The student is expected to report the findings and make an oral presentation to departmental faculty, senior students and any other invited guests. *Prerequisite: FTXD 303.*

FTXD 315 Clothing Recycling 3 Credits

This course helps students to learn the different techniques way of renovating or repairing their clothes. This will include the use of patches, darning and accessories to repair socks, sweaters, collars, skirts, dresses, pants, and / or alteration of any of the above clothing items, to something new and different for adults and children's clothes. In the laboratory, students will make use of remnant fabrics into usable items such quilts, table coverings and use of applique. Emphasis is placed on clothing conservation and creative needlework skills. *Prerequisite FTXD 151.*

FTXD 316 Textile Analysis 3 Credits

This course is an analysis of natural and man-made fibers, yarns and fabric construction; and characteristics that determine use, performance and care of different fabrics. The emphasis is on innovations in the textile field, dyes, printing processes and fabric tests. Field trip is required. In the laboratory, students will examine different fibers, fabric their behavior and characteristics as they respond to different detergents, dyes or pressures.

FTXD 317 Interior Design 3 Credits

This course intends to equip students with creative and technical knowledge and skills in interior design and accompanying textile furnishings spread in diverse interior spaces. It will cover: Introduction to Design Factors: Elements of design, Principles of design, Functional design. Color Functions: Color spectrum, Color quality, Color harmonies, Color effects. Floor Plan Design: Room Planning, designing floor plans, Steps in drawing floor plans. Living Area: Living room, function, location, light, and ventilation: Dining room, Recreation room, Porches, Patio / Lanais. Service areas in the home, The Kitchen Function, Location, Light and Ventilation, The Laundry, The Garage, Storage Centers, and Utility room. Sleeping Areas: Bedroom; Function, location, Light, and Ventilation, Bathroom, Dressing area, Nurseries. Floor coverings: Hard – surface floor coverings, Carpeting, Furniture arrangements. Walls and ceilings: Wall coverings, Flat Ceiling. Landscaping.

FTXD 318 Upholstery Design 3 Credits

This course intends to equip students with technical knowledge and skills for designing creative textile furnishings for diverse interior spaces. Flower arrangements. Choosing fabrics, equipment and supplies. Taking measurements for yardage. Fitting and cutting, special shaping techniques. Bed spreads – throw styles, fitted spread with flounce, fitted with tailored sides, quilted spread, patchwork, trapunto, appliqué. Lining a bedspread, curtains and draperies, table clothes, mats and napkins, lampshades, wall hangings, floor rags, toilet seat covers, closet accessories, cushions, pillows, cushions.

FTXD 320 Principles of Fashion Design 3 Credits

Basic design principles are examined in this class as they apply to clothing for men, women and children. Emphasis includes design modifications as required by fabric and figure characteristics. It relates design problems to current aesthetic trends and use of garments.

FTXD 321 Apparel for Children and Teenagers 3 Credits

The focus of this unit is to impart students with creative and technical knowledge and skills to enable them create various apparel styles for babies, children and teenagers. It includes: Types of babies', children's and teenagers' apparel. Size charts for boys and girls. Body measurements. Draft basic block patterns for various apparel types: trousers, dungarees, rompers, jersey. Pattern adaptation of various styles using ¼ scale slopers. Design apparel to include casual, special occasion, uniforms, and/or sleepwear. Construct a sample Childs' garment using Toile and developing it into a final garment. *Prerequisite: FTXD150,151, 230.*

FTXD 325 Principles of Apparel Techniques 3 Credits

The purpose of this course is to equip learners with specialized skills needed to design and create tailored and structured garments using traditional hand methods and industry shortcuts. It will cover: Introduction to tailoring; Aspects of tailored garments. Sewing and pressing equipment. Support fabrics. Components of tailored garments. Support fabrics. Preparing the fabric: pre- shrinking hair canvas, pre- shrinking the stay tape, and pre- shrinking. Applying fusible interfacing. Tailoring pockets. Tailoring sleeves. Tailoring skirts and trousers. Making a toile garment. Two lecture hours and one three-hour laboratory.

FTXD 330 Flat Pattern Design 3 Credit

This course introduces students to the basic principles of pattern production and development to achieve good fit and shaping of different garment designs. It includes: Drafting and draping equipment. Taking measurements for different types of garments, drafting developing in quarter and full-scale: skirts, bodices and princess/vertical foundations, sleeves, collars and trousers. Advanced dart manipulation: pivot and slash methods, substitution and pattern alterations and adaptations. Pivot & slash methods. Simple pattern adaptation from Basic patterns, Working and Final patterns. Transformation of a design into its constituent flat pattern pieces. Garment Making. *Prerequisite: FTXD 230.*

FTXD 360 Mass Apparel Manufacturing 2 Credits

This class introduces the student to mass apparel production. It teaches the students on the importance of event sequencing and coordination of different stages. It also introduces the students to the equipment necessary for smooth running of the event sequences so as to produce a complete item. Field trip is required.

FTXD 370 Creative Fashion Design 3 Credits

The students who take this class learn embroidery, cross stitches and other creative needle work skills. They also learn special sewing techniques for garments made from knitted fabrics such as T-shirts, active wear and swimwear. Students construct garments while learning how to work with knit fabric including ribbed finishes, elastic ending and special seam types. Two lecture hours and one laboratory hour.

FTXD 375 Textile Color Application 3 Credit

This course intends to equip students with technical knowledge and skills for applying textile surface designs using various

techniques. It covers: Ancient and modern textile decoration techniques. Preparation of fabrics: preparation of cotton fabrics -Singeing, desizing, bleaching, mercerization; preparation of woollen fabrics-cropping, scouring, carbonizing, wool bleaching, felting and milling; preparation of man-made fiber- desizing and scouring, setting process, fluorescent brightening agents. Printing: Equipment and materials, styles of printing-direct printing, discharge printing, resist printing. Dyeing; tie and die, batik, spraying, painting. *Prerequisite: FTXD 112.*

FTXD 380 Apparel Sizing and Fit 1 Credit

This course is designed to equip the students with knowledge on anatomy of the figure and a detailed survey of its irregularities. Figure types for all sexes. Fitting techniques; individual's measurements, standard measurements. Anthropometric data, survey, testing for fit and future expectations. Development of sizing systems, basic pattern alterations; increasing or decreasing length, raising and lowering darts, altering different parts of a pattern. Figure faults/problems and how to correct them; dowager, sloping shoulders, squared shoulders, stooping upright figures, sway backs etc. Fitting and pattern alterations.

FTXD 390 Fashion Forecasting and Presentation 2 Credits

This course explores fashion forecasting at all industry levels focusing on trend, identification, analysis and synthesis. Students are exposed to fashion terminologies, fashion timing and prediction, inspiration, cat- walks and research tools and techniques.

FTXD 409 Fashion Industry 3 Credits

Fashion industry course is an overview of the fashion industry that prepares students to be on the cutting edge of what is happening in the industry. Emphasis is on economic, political, sociological, technological and psychological environment that affects changes in fashion. Field trip is required.

FTXD 412 Computer Aided Design 3 Credits

This course aims at helping the learner understand and apply the fundamentals and principles of CAD. It also equips the learners with skills on computers applications in the fashion industry. Application of computer aided design (CAD) programs in fashion design: Adobe Photoshop, Adobe Illustrator. Benefits of CAD and Computers in the Fashion Industry. Introduction to CAD Software for Fashion Designers; creating, developing and editing texts, colors, geometry, images, weaves, knits, patterns and designs, managing and using libraries, annotation, documentation and using layers. Utilization of the CAD function in the design process: mood boards/theme boards, pattern making, pattern grading rendering, draping on fashion figure, apparel measuring specifications, print design and fashion illustration. 2D and 3D visualization of apparel. Practical projects in development of 2D and 3D digital computer design of apparel and textiles.

FTXD 413 African Costumes 3 Credits

This course is aimed at helping the design student to appreciate the cultural, social, economic and political factors that have shaped the dress of various African peoples, and how these dress forms continue to impact contemporary fashion. This understanding will enable the design student to incorporate African costumes in designing contemporary fashion items. The course will cover dress from various regions of Africa; South, West, Central, Eastern; Dress of various Kenyan communities and their religious, economic, political and social significance; and; Interrelationships between African costumes and costumes from other parts of the world.

FTXD 418 Wardrobe Selection Management 2 Credits

The purpose of this course will be to explore the aesthetic, economic and psychological aspects of clothing design and wardrobe selection for men and women. Introduction on language of dress, proper grooming for men and women. Clothing personality. Color analysis; Psychology of color, Color capsules and Color co-ordination, skin tones, undertones. Figure analysis, Visual illusions through line. Wardrobe Planning; Basic versatile wardrobe for students, Quality selection for look, fabric and workmanship. Using indispensables or accessories; Scarves, shoes, stockings, jewelry, hats, belts and gloves appropriately. Dressing a man; Shirts, Suits, ties, coats, socks shoes, jewelry, and briefcase. Career Dressing; How to be a successful shopper. Avoiding mistakes in wardrobe selection; analysis face shape analysis, Do's and Don'ts of dressing figures. Managing travelling wardrobe. What to wear, when and where. Dressing a woman / man after the age of 40 years. Presentations to community on how to dress properly. Two lecture hours and one three-hour laboratory.

FTXD 420 Seminars in Fashion and Textiles 1 Credit

This course intends to equip the learner with the skills to prepare, present and defend seminar papers in topical issues in the areas of Fashion and Textiles. It will cover Identification and analysis of topical issues in the Fashion and Textile industry, Methods of presenting seminar papers, Use of audio-visual aids in presentation, Forms of writing seminar papers and Seminar paper presentation techniques.

FTXD 425 Tailoring Techniques 3 Credits

The purpose of this course is to let students utilize knowledge and skills earned in FTXD 325: Principles of Apparel Techniques, to design and create a tailored suit. Designing, Taking measurements, Pattern Drafting and development. Cutting and sewing of the jacket. Construct toile jacket/coat sample, Fitting and adjustments. Making actual garment; Selecting lining, making a back stay, and shaping the shoulder seam. Shaping the front and back of the jacket, tailoring a notched collar, and preparing collar and facing, tailoring pockets: sewing a lined and unlined patch pockets, and sewing single or double welt pockets. Tailoring sleeves: sewing set in sleeve with easy stitching, attaching shoulder pads, and Tailoring hems. Tailoring skirts or trousers: drafting and adaptation, Cutting and sewing a skirt or trouser, and applying fusible interfacing and zip. Applying the finishing techniques. Two lecture hours and one three-hour laboratory. *Prerequisite FTXD 151, FTXD325.*

FTXD 460 Fashion Marketing and Merchandising 3 Credits

This course is a general survey of the major marketing institutions, fashions, strategies and practices examined from the view point of their effects on the exchange process involved in moving goods from producer to ultimate consumer. The role of manufacturers, designers and retailers in the fashion business is also explored along with the elements of fashion marketing and fashion merchandising.

FTXD 470 Fashion and Textile Design Attachment 4 Credits

The Fashion and Textile Design attachment is a carefully planned program, and supervised experience providing professional training and practice in textile industry. This is designed to expose students to managerial roles related to the textile industry. The Experience period is two weeks

HOSC 120 Introduction to Food Preparation 3 Credits

A study of chemical and physical properties of food. Students are introduced to fundamentals of the practical preparation of foods. Emphasis is placed upon handling, preparation, preservation, and sanitation of food. Two lecture hours and one 3-hour laboratory per week.

HOSC 116 Creative Needle Work 1 Credit

The students will be introduced to specific skills like quilting, weaving, knitting, crocheting and other creative needle work skills. The course furnishes students with entrepreneurial skills appropriate for business. One 3-hour laboratory per week.

HOSC 150 Clothing Construction I 3 Credits

The student will learn the theory behind the basic principles of clothing construction, fitting methods and fabric selection. The discussion will also cover basic sewing equipment and students will be required to make clothing samples and garments-apron and child's garment. Two lecture hours and one 3-hour laboratory per week.

HOSC 170 Resource Management in the Family 3 Credits

This course teaches principles of management as they relate to family ecosystems. Emphasis is placed on efficiency and effectiveness in the expenditure of time, money, energy and human resource.

HOSC 216 Clothing Construction II 1 Credit

Students will advance the skills learned in HOSC 150. They will be able to construct full adult garments. Emphasis is on skills and techniques, pattern making, selection of fabrics and construction processes. One 3-hour laboratory per week.

HOSC 230 Nutrition and Health 3 Credits

The course aims to equip the students with basic principles of human nutrition. The course covers the major nutrients including carbohydrates, proteins, fats, vitamins and minerals; their digestion, absorption and roles in the human body. Students will also learn the relationship between diet and health.

HOSC 235 Pattern Drafting 3 Credits

This course examines basic design principles as they apply to clothing for men, women and children. Emphasis includes design modifications as required by fabric and figure characteristics. It relates design problems to current aesthetic trends and use of garments.

HOSC 250 Child Development and Growth 3 Credits

A study of the factors that affect the total development of the child from conception to school age. Emphasis is placed on understanding children's basic needs and parental responsibilities.

HOSC 300 Family Living 2 Credits

This is designed to teach the student to examine and clarify their own goals, attitudes and values in reference to the contemporary family and study the factors that lead to stable marriages, healthy family relationships and the growth of those relationships. Students will also be introduced to marriage dynamics and growth.

HOSC 318 Personal Hygiene and Good Grooming 3 Credits

This course exposes students to aesthetic, economic and psychological aspects of clothing design and wardrobe selection

for men and women. Emphasis is placed on the successful use of matching of colors, the selection of the most pleasing styles, the choice of dressing according to the occasion, proper care of attires and modesty in dressing. Students are expected to coordinate and participate in a wardrobe selection seminar and workshop.

HOSC 319 Design for Living 3 Credits

This course is planned to develop an understanding of the guidelines for an aesthetic appreciation of everyday life. Emphasis is on the home environment and office environment both inside and outside. The course includes the study of the facility and environmental atmosphere for churches, offices, homes, hotels and schools. The students are able to read and understand patterns and directions.

HOSC 330 Meal Preparation and Management 3 Credits

This course is designed to teach students to be meal managers who can integrate the concepts of food, nutrition, economics, purchasing, art, and to prepare quality meals. Emphasis is on all food establishments. Two lecture hours and one 3-hour laboratory per week

HOSC 400 Public Health and Community Nutrition 3 Credits

This course covers nutritional aspects that have public health implications. It includes, but not limited to, an overview of public health nutrition; assessment of nutritional status of individuals and populations; public health aspects of under nutrition and over nutrition; public health strategies for intervention at the individual level; iron, iodine and vitamin A deficiency; adverse outcome of pregnancy; the role of foliate and related B vitamins; diabetes mellitus; cancer and diet and nutrition in emergency.

HOSC 415 Tailoring 3 Credits

The students who will take this course will learn specialized skills needed to design and create tailored and structured garments using traditional hand method and industry shortcuts. This course includes elements of a well-designed tailored garment, choosing appropriate materials as well as creating shape with tailoring techniques. Two lecture hours and one 3-hour laboratory per week.

HOSC 450 Food Demonstration Skills 2 Credits

This course is designed to teach students demonstration techniques appropriate for the classroom and for groups. The purpose is promotional and educational on food quality and preparation principles

HOSC 455 Quantity Food Management and Production 3 Credits

Class experiences structured to teach students techniques and tools of food service management as practiced in large food system. Laboratory experiences structured to teach students with techniques and tools of food service management as practiced in large food systems.

HTMG 101 Introduction to Hotel and Hospitality Operations and Management 3 Credits

This course explores the vast boundaries of various management techniques in running hotels. It mainly concentrates on: covering every facet of the hotel industry, from the breaking of the ground, to the opening, to the marketing, to the operating of all departments no matter how large or small, and, finally to the building of a proper framework for a professional management team.

HTMG 122 Introduction to Tourism Operations and Management 3 Credits

The course exposes students to the concepts, aspects and practices of the tourism industry, such as; The Tourism System: components and organization, Historical Dimensions of Tourism Travel in ancient time, middle age, renaissance, industrial age and modern mass tourism, Economic, social, cultural, environmental and political dimensions of tourism, International dimensions defining international tourism, the importance of international tourism, travel flows, and the international tourist-behavior, Impacts of tourism, perception, environments as an attraction, and the greening of tourism

HTMG 143 Introduction to Hotel Economics 3 Credits

The course is an introduction to the principles of economic analysis and decision making from the viewpoint of individuals' consumer, workers and firm in general. The course will explore various economic aspects within the industry such as; Industry, service economy in hotel and catering industry, Demand and supply for hotel and catering, Introduction to the concept of elasticity, Market structure, Size of firm's market concentration, Conduct and performance: monopoly, oligopoly, perfect competition, costs, output in the hospitality sector, economies of scale in the hospitality industry.

HTMG 232 Food and Beverage Production 3 Credits

The course aims at developing basic awareness of the technical skills required in the production department. The course exposes students to: Food production systems, Elements of food preparation and production, Menu planning: types of menus, structure of menus, application of nutritional principles in menu planning, Chemical and Biological Properties of major Foods, Food microbiology and hygiene, Food production methods, Methods of preparing foods, Cooking techniques and respective suitable foods, Wines and drinks, weights and measures, compiling wine and drinks lists, as well as Mixing and serving drinks. The laboratory offers practical experiences for the purpose of acquiring techniques and tools of food and beverage production in small and large food production systems

HTMG 233 Food and Beverage Service 3 Credits

The course equips students with the basics of food and beverage service. The course offers the application of management principles to the service of food in small and large food service systems. Emphases are placed on; Customer service vs. resource productivity, managing service sequence, managing volume, Types of food service: waiter/waitress, cafeteria, hatch and counter, snack- bar, buffet, takeaway, auto vending, Service styles: family service, silver service, counter service, carousel system, Echelon counter, vending, the carver etc. preparing the service area, types of place setting, serving skills, serving and clearing food and drink, Performance appraisal. The laboratory offers practical experiences for the purpose of acquiring skills in food and beverage service in small and large food production systems

HTMG 252 Front Office Operations and Management 3 Credits

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and account settlement. The student is equipped with the necessary knowledge, skills and attitudes to enable them carry out procedural tasks throughout the guest cycle in a hotel front office. Students will be exposed to; Importance of Front Office operations, front office responsibilities, communication,

telephone etiquette, complaint handling, guest services, guest relations, equipment and supplies of the front office, guest cycle, reservation, registration, accounting, internal control, checkout and settlement, departure procedure, night audit process, management functions of the front office, establishing room rates, forecasting room availability and room revenue, estimation expenses, budget plans, evaluating front office operations, hotel income statement, budget reports, yield management. The laboratory offers students practical experience in front office management.

HTMG 253 Housekeeping Operations and Management 4 Credits

The course presents a systematic approach to managing housekeeping operations and provides a thorough overview from the big picture of maintaining quality staff, planning and organizing, to the technical details of cleaning each area. The course emphasizes on accommodation services within the hospitality industry which includes the importance of housekeeping in the hospitality industry, functions and responsibilities of housekeeping, types of surfaces, properties of surfaces and their maintenance, cleaning methods and materials, care of drainage and waste disposal systems, methods and procedures in laundering housekeeping articles, guest laundry services, care of household plants, heating, ventilation and illumination in hospitality establishment, Principles of water supplies, waste disposal and food plant sanitation. The laboratory offers practical experiences for the purpose of acquiring the necessary skills in housekeeping operations.

HTMG 300 Industrial Attachment I 4 Credits

Students are required to undertake a three (3) months (480 hours) Industrial attachment in various hospitality establishments (such as hotels, restaurants and airlines). Area of emphasis is on food production and service, front office and housekeeping operations. This course is intended to give students a hands-on experience in the hospitality industry. Students are also required to write a report after the industrial attachment on a specific aspect of the hospitality industry. During the attachment period, the university lecturers visit the students for assessment. The report written should be between 4000-5000 words.

HTMG 301 Hospitality Service and Operations Management 3 Credits

The course equips students with supervisory and managerial skills of managing hospitality operations. The course exposes students to; The scope of operations management, operations management in the organization context, technology and operations management, planning and control, organizing and staffing for operations, quality and operations improvement, Hospitality products and markets; Hotel facilities and services as products, Hotel and accommodation markets, Product style and concepts; Product growth and development; Conception and development; The hotel as a total market concept; the hospitality cycle; The control cycle; The operations cycle; Productivity management; Forecasting and managing demand; Work coordination and control.

HTMG 303 Research Method in Tourism and Hospitality Industry 3 Credits

This course introduces students to principles, methods and tools of research. Emphasis is placed on practical applications of basic research techniques such as formulation of research problem and objectives, development of theoretical and

conceptual framework, identification of appropriate methods to be used in data collection and analysis, making judgments on hypothesis, and coming up with conclusions and recommendations. Students are required to develop a research proposal and data collection instruments at the end of this section.

HTMG 304 Senior Project 3 Credits

This course provides students with an opportunity to put into practice what was learned in research 1 by actively engaging in scientific research. Each student is required to design a research project and perform the research independently. The student shall be under guidance of an advisor. The student is expected to report the finding and make an oral presentation to departmental faculty, senior students and any other invited guests.

HTMG 311 Consumer Behavior and Service Marketing 3 Credits

This course will equip students with skills, attitudes and knowledge to enable them create customer satisfaction by building value-based relationships with customers, enabling them to gain market leadership by understanding consumer needs and finding solutions of superior value, quality, and service. Students will be exposed to such aspects such as; Determinants of consumer behavior, Identification of psychological, social cultural, and environmental factors influencing the purchasing behavior, Consumer behavior as a process in regard to decision making, information processing, production or service adoption, Consumer needs, consumer preference models, personality and consumer behavior, Changing values and lifestyles. Emphasis is also placed on stages of the decision-making process, Consumer attitudes, attitude of tourists and local people, identifying and meeting consumer needs in catering and lodging facilities, role of public relations in hospitality Enhancing communication, and appreciation, importance's of customer care to an organization, techniques and tools used in customer care. Uniqueness of marketing services, intangibility, inseparability, variability and perish ability strategies of marketing services, Differentiation, service quality and productivity in relation to marketing, types of marketing in service industries, internal marketing, external marketing, interactive marketing, managing differentiation, managing service quality, marketing research and application in service provision.

HTMG 322 Facility and Property Management 3 Credits

The course will impart students with knowledge and skills for good management responsibilities with regard to facility management and to utilize hospitality premises for maximum benefit without compromising on their care and maintenance. The course will expose students to; concepts and scope of facilities management, Factors that influence facilities management and customer perceptions, physical assets, planning, design and construction. Principles of interior design and décor; traditional and western as they apply to maintenance, Social functions and technical aspects of interior design and decor furnishing material choice, properties, and maintenance Identification of factors that influence design choices for hospitality facilities. Development of interior layouts of both guestrooms, public and dining rooms with emphasis to color, materials, furniture selection, functional and space requirements, circulation, proximity, and variety. Development of renovations' plans, integrating specific design with operational.

HTMG 332 Marketing Hotels and Catering Services 3 Credits

This course will enable the students identify customer needs and wants, determines which target markets the origination can serve best, and designs appropriate products, services, and programs to serve these markets. Students will acquire knowledge on; The marketing cycle; the catering cycle; cuisine, entertainment and events marketing, concept trends, software programs in hospitality marketing, managing marketing accounts, automatic vending and marketing, Role of media, Merchandising, administration, timing, quality and standards harmonization and Customer care and relationship marketing.

HTMG 343 International Foods laboratory 3 Credits

This course exposes students to various food preparations, cooking techniques, cooking equipment and recipes based upon cultural and geographic differences and acceptance. Students are supposed to acquire skills on preparations of various recipes which are based upon cultural and geographical differences and preferences so as to understand and appreciate other cultural feeding styles. The course requires students to visit different types of hotels. Two lecture hours and one 3-hour laboratory per week

HTMG 353 Human Resource Management for Tourism and Hospitality Industry 3 Credits

This course will equip students with skills and knowledge of management of people within service industries, such as hospitality and recognizes the critical role that managing people has in the effectiveness and efficiency of an organization. The course will touch on the various aspects of human resource management such as; Philosophy of human resource management and application of sound human resource management practices in the hospitality industry, Current issues affecting human resource management. Employment laws, Employee selection and recruitment; inter relating the various elements of job analysis, job description, job specifications, selection and testing. Human resource development and training, compensation, benefits, pay systems, incentives schemes, employee security and safety techniques various aspects of employee performance, Performance appraisal and interview techniques, professional ethics, Global trends.

HTMG 360 Events and Conventions Management 3 Credits

The meetings and events management major encompasses conferences, conventions, tradeshow, special events, and entertainment. It is a specialized curriculum that includes everything from site selection and marketing to budgets and logistics. Our Meeting, Incentive, Convention and Exhibition (MICE) concentration is for students who want to manage large-scale meetings. We provide a project management focus to the discipline of meeting management. Relevant topics include aligning goals and objectives, evaluation, event design, food and beverage arrangements, technology and other logistics. You will learn how to manage and design events such as meetings, trade shows, conventions, congresses, and incentive events for organizations, large and small.

HTMG 400 Industrial Attachment II 4 Credits

Students are required to undertake a three (3) months (480 hours) industrial attachment in various hospitality establishments (such as hotels, restaurants and airlines). The area of emphasis is on management. This course is intended to

give students a hands-on experience in the hospitality industry. Students are also required to write a report giving a critical analysis of a specific aspect of the hospitality industry and give recommendations and a critique. During the attachment period, the university lecturers visit the students for assessment. The written report should be between 6000-7500 words.

HTMG 422 Tourism Operations 3 Credits

This course exposes students to the concepts, aspects and practices of the tourism industry, such as; The Tourism System: components and organization, Historical Dimensions of Tourism Travel in ancient time, middle age, renaissance, industrial age and modern mass tourism, Economic, social, cultural, environmental and political dimensions of tourism, International dimensions defining international tourism, the importance of international tourism, travel flows, and the international tourist-behavior, Impacts of tourism, perception, environments as an attraction, and the greening of tourism.

HTMG 440 Health and Safety Regulations in Hospitality Industry 2 Credits

This course exposes students to basic principles of health in food handling and also in the overall health concepts of the hotel. Emphasis is placed on the national policy regarding health expectations of hotels and the operation of a hotel in a healthy and conducive environment. It involves the development of an economic plan for the long-term health of a hotel.

HTMG 450 Hospitality Law 3 Credits

The course equips students with detailed account of legal aspect of hospitality industry. They include judicial system in Kenya, the booking contract and the contract for sale of goods and drink, duty to care, crime in the industry among others, commercial contracts, licensing law and the working environment. Students will be exposed to; familiarize students with current issues affecting the hospitality and tourism industry and to enable the students to manage the change process required to take advantage of the opportunities they create. Legal framework of hospitality services, Regulation and quality, Food Law, Accommodations law, Guests and the law, licensing law, Ethics in hospitality services; ethics and the front office, ethical concerns in food and beverage management, ethics and housekeeping, hotel engineering and security, ethics in information technology and in relationship with the community, student will also be exposed to various legal frameworks that govern hospitality industry the various regulatory agencies that implement laws and regulations in the industry. Risks and endurances

HTMG 451 Seminars and Contemporary Issues in Hospitality Industry 2 Credits

The course exposes students to contemporary issues in the hospitality industry. The issues covered include but not limited to technological advancements and impacts on the hospitality industry; security, insecurity and terrorism; natural calamities; diseases; legal aspects in the hospitality industry; new developments in food service and production systems; social cultural diversity; challenges in providing recreation, leisure and hospitality services and other current issues in the hospitality industry. Emphasis is placed on seminar design, preparation and presentation at professional for a (seminars and conferences). Attendance to at least one seminar/conference on hospitality or related field is required.

NUTR 130 Life Skills 2 Credits

This course is designed to increase students' knowledge of and ability in using the skills necessary for everyday living. Life Skills emphasizes defining personal values, goal-setting and planning, and solving problems. Instructional material focuses on dealing with media and peer pressure, communication and relationships, working with others, avoiding and/or resolving conflict, decision making, wellness and personal safety, aspects of good citizenship, environmental awareness, and how students can contribute to their own community. This course consists a three-hour laboratory.

NUTR 110 First Aid 1 Credit

The scope of first aid; the first aider; definition and duty; assessing first aid situations; diagnosis and treatment in first aid situations. First aid in: shock, loss of consciousness, drowning, difficulty in breathing, cuts, infected wounds, burns, broken bones, dislocations, strains and sprains, poisoning, bites, and stings, constipation, stomach problems, emergency problems of the gut, appendicitis, peritonitis. Care of the sick: home based nutritional support and psychological factors in patients' care; link between hospital and home. *Prerequisites: DTCS 100.*

NRSNG 213 Pharmacology (NRSNG 220) 3 Credits

Nutrient-drug interactions: effect of nutrients on drugs, effect of drugs on nutrients; cardiovascular pharmacology, antihypertensive, diuretics and antiaging agents, endocrine pharmacology, gastrointestinal and pulmonary pharmacology including anti-asthmatic agents; antimicrobial chemotherapy, resistance, development and mechanisms for antimicrobial resistance; drugs for treatment of tuberculosis anti-parasitic agents, including antiprotozoal and anti-helminthic, antiviral agents including anti-retroviral, cancer chemotherapy.

NUTR 234 Human Nutrition 3 Credits

Nutrients in foods: composition and variation, the basics of interaction of nutrients and their metabolism; introduction to nutrient digestion, absorption, sources of nutrients and intake regulation; natural and human-made factors influencing nutrient utilization; balanced diets and disorders related to under-and over nutrition, dietary guidelines, non-nutritive components of food; energy metabolism, weight control and contemporary nutrition issues. *Prerequisites: BIOM 113 and BIOM 114A.*

NUTR 255 Nutrition in the Life Cycle 2 Credits

Concepts of growth and development; nutrient requirements in the human life cycle; infancy, childhood, adolescent, adulthood, old age; factors affecting food choice in the human life cycle; nutrient requirement in special physiological states e.g. pregnancy and lactation; nutrition related issues affecting each age group in Kenya and worldwide; WHO guidelines on infant feeding, breastfeeding code; nutrition during special needs (vegetarians, allergies, resource poor setting, alcohol abuse, food intolerance). *Prerequisite: NUTR 234.*

NUTR 369 Nutrition Anthropology 2 Credits

Nutritional anthropology: social-cultural factors influencing nutrition; indigenous foods: types and resources; indigenous knowledge in food, nutrition and development; international knowledge network; adaptive strategies and sustainable livelihoods; African knowledge and ideas about indigenous foods; community-based natural resource; indigenous knowledge and intellectual property; projects. *Prerequisite: NUTR 234.*

NUTR 290 Nutrition in Emergency 2 Credits

Types of emergency situation; assessment of nutrition status in emergencies; LQAS and SMART methodology in conducting nutrition surveys. Nutrition interventions, CTC program planning, implementation, monitoring and evaluation, human rights approaches to emergencies, cultural dynamics: gender issues in emergency: SPHERE standards: vulnerable groups: disaster preparedness plan: challenges in management of a crisis situation; current developments in nutrition in emergencies. A field trip to an emergency prone area to obtain a first-hand experience on emergency issues. *Prerequisite: NUTR 234.*

NUTR 303 Research Method I 3 Credits

This course introduces students to principles, methods and tools of research. Emphasis is placed on practical applications of basic research techniques such as formulation of research problem and objectives, development of theoretical and conceptual framework, identification of appropriate methods to be used in data collection and analysis, making judgments on hypothesis, and coming up with conclusions and recommendations. Students are required to develop a research proposal and data collection instruments at the end of this section. *Prerequisites: ENGL 105, PHEP 100 and PHNL 202.*

NUTR 304 Research Method II 2 Credits

This course provides students with an opportunity to put into practice what was learned in research I by actively engaging in scientific research. Each student is required to design a research project and perform the research independently. The student shall be under guidance of an advisor. The student is expected to report the findings and make an oral presentation to departmental faculty, senior students and any other invited guests. The class will be spread throughout one academic year. *Prerequisite: NUTR 303.*

NUTR 322 Primary Health Care 3 Credits

The aim of the course is to enable students gain knowledge and skills that are essential to effectively execute community health activities and assess the health of communities. The course develops an understanding of the components of community diagnosis; introduces community entry techniques and sources of community health data that may be used in community diagnosis and reports. The roles of community health providers are also discussed. The community is considered as the primary client in determining the health status of communities. This course consists a three-hour laboratory including field practical. *Prerequisites: BIOM 113 and BIOM 114.*

NUTR 342 Nutrition in HIV and AIDS 2 Credits

The course is designed to provide knowledge and skills regarding HIV and AIDS prevention, counseling and homecare. All modes of HIV transmission are explored for the sake of protecting oneself as well as protecting others not infected. Students are furnished with counseling techniques for the purpose of supporting and caring for both infected and the affected. In addition, students are expected to utilize knowledge in nutrition to provide nutrition care to the infected. *Prerequisites: NUTR 234, NUTR 255 and NUTR 290.*

NUTR 365 Nutrition Assessment and Surveillance 3 Credits

Studies the principles of nutritional assessment; nutritional assessment techniques; anthropometry, biochemical techniques; clinical methods and dietary history; procedures

used in identifying individuals and groups at risk; and the planning, implementation, monitoring and evaluation of activities required to institute a successful nutritional intervention program. Presents quality assurance requirements and program implementation. Theoretical frameworks of the methods, their history, standards of reference and limitations of the methods. Criteria for selection of method and determination of method appropriateness for different assessment needs. Principles of nutrition surveillance; anthropometric assessment methods, their analysis and interpretation; biochemical, dietary, demographic and anthropologic assessment methods, their analysis interpretation, values and limitations; methods of monitoring household food security; development of early warning systems; theory and methodology of program and system planning. *Prerequisite: NUTR 234.*

NUTR 403 Macronutrients 3 Credit

The macronutrients: carbohydrates, proteins and fats; classification, dietary requirements, function and deficiencies; digestion and absorption; disorders of nutrient imbalances; cases studies; visits to rehabilitation centers. This course consists of a three-hour laboratory. *Prerequisites: NUTR 234 and CHEM 113.*

NUTR 404 Micronutrients 3 Credits

Vitamins: classification, structure, dietary requirements, vitamin deficiencies and avitaminosis; Minerals: classification, dietary requirements, function and deficiencies; absorption; micronutrient supplements; current micronutrient research; new discoveries; micronutrients and malnutrition; case studies of micronutrient deficiencies; hospital visits. This course consists of a three-hour laboratory. *Prerequisite: NUTR 401.*

NUTR 417 Nutrition and Behavior 3 Credits

Introduction to nutrition behavior; concepts and models in nutrition and behavior; research methods and analytic strategies; direct effects of nutrition and behavior: brain-behavior connections; short-term effects of nutrition and behavior: neurotransmitters; effects of chronic and acute forms of under nutrition; B vitamins, the central nervous system and behavior; minerals, central nervous system and behavior; dietary supplement, mental performance and behavior; bio-behavioral and psychosocial influence on nutrition; dietary sugar and behavior; caffeine, the methylxanthins and behavior; alcohol, brain-functioning and behavior; eating disorder syndromes: anorexia and bulimia nervosa; behavioral aspects of overweight and obesity. *Prerequisites: NUTR 234 and NUTR 342.*

NUTR 461 Nutrition Epidemiology 3 Credits

Types of studies and study designs appropriate for specific surveys; nutritional related disorders and their distribution and determinants; measuring exposure outcomes, measuring diet-disease (exposure outcome) associations; interpretation of associations nutritional surveillance; screening tests; collection of data for program evaluation and decision-making; management of nutritional related disorders; research methodology. Principles of research methods; ethical considerations in human and animal research; the research process: data sources, research designs, sampling procedures and guide to referencing. Importance of research in nutrition and dietetics; evaluation of nutrition and dietetic research; purposes of scientific research; basic terminologies; types of nutrition research; proposal development, primary health care. *Prerequisite: NUTR 303.*

DEPARTMENT OF MEDICAL LABORATORY SCIENCES

FACULTY

Njagi, E., MSc. Head of Department

Kittur, A., MSc.

Lelei, W., MSc.

Ogot, A., MSc.

Magundu, R., MSc

Jeptoo, J., BSc

Obaga, J

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PHILOSOPHY

The Department of Medical Laboratory Sciences operates on the UEAB worldview, which holds that God is the Creator and Sustainer of the universe, and life and is the Source of true knowledge. The entrance of sin caused man's alienation from God; therefore, the educative and training process of Medical Laboratory Sciences seeks to restore man's relationship with God through the promotion of a healthy lifestyle by providing theoretical and technical skills necessary to provide quality health care.

MISSION

The mission of Department of Medical Laboratory Sciences is to provide and advance holistic, quality Christian principles which seeks to develop men and women to be earnest seekers of truth and equip them with theoretical and technical skills necessary for innovation, diagnosis and provision of timely and accurate scientific results for service to God through serving humanity.

VISION

The Department of Medical Laboratory Sciences envisions being a leading center of excellence in higher education and research, producing world class medical laboratory scientists equipped with knowledge, competences, skills, and technology integrated with moral values.

DEGREE/S OFFERED BY THE DEPARTMENT

BSc. Medical Laboratory Sciences

EXPECTED LEARNING OUTCOMES

A graduate from the Department of Medical Laboratory Sciences, should be able to:

1. Describe the human anatomy, physiology, and related disorders.
2. Collect, transport and analyze specimens from patients for diagnosis and treatment;
3. Set up and manage a medical laboratory with manual, electric and electronic equipment;
4. Recognize abnormal pathological laboratory results and their causes;
5. Detect laboratory results which may be unreasonable or in error;
6. Identify, select, use and maintain clinical laboratory equipment;
7. Set up safety and quality control measures in a clinical laboratory;
8. Demonstrate laboratory procedures, supervisory and managerial skills relevant to running a clinical unit;
9. Apply Christian ethical norms and professional ethics in relation to physicians, colleagues, and patients;

10. Carry out a scientific research project to solve a clinical problem;
11. Continue with graduate studies in specialized areas of laboratory science.

CAREER OPPORTUNITIES

There is a vast market with a wide variety of options including:

1. Hospitals (private or government)
2. Research Institutions - NGO's, Governmental, university, pharmaceutical, industrial
3. Privately Owned Laboratory Business
4. Privately Owned Medical Laboratory School
5. Teaching/Lecturing
6. Government Public Health Departments, Environmental laboratories
7. In vitro fertilization labs
8. Blood Banks, Red Cross
9. Crime labs, forensics
10. Inspectors – accreditation agencies
11. Infection control officer, epidemiology
12. Quality assurance director
13. Advance to Medicine/Pre-Med Degree
14. Master's Degree in Immunochemistry, Medical Education, Blood Transfusion, Immunology, Parasitology, Hematology, Clinical Microbiology, Laboratory Administration, Clinical Chemistry, Virology, Cytology/Histology, etc.

ENTRANCE REQUIREMENTS

Direct Entry

1. A minimum grade of C+ or better in Kenya Certificate of Secondary Education (KCSE), with a grade of C+ or better in Biology, C+ or better in Chemistry, C+ or better in English or Kiswahili, and C+ or better in Mathematics or Physics
2. Candidates holding baccalaureate degrees in the sciences must show evidence of having relevant transferable credits or evidence of having completed all pre-clinical courses including cognates and general education requirements. The science courses must have been completed within the past eight years (or updated to the satisfaction of relevant department instructors).
3. The prospective entrants into the MLS program should be able to hear safety alarms, timers, instrument alarms and beepers, and telephone/intercom communications, and possess visual acuity and ability to discriminate color distinctively.

Upgrading Students

Candidates holding a Medical Laboratory Technology diploma will be accepted into the program, if they:

- a. Have a diploma in Medical Laboratory Technology from a recognized institution.
- b. Have a current registration with KMLTTB or any other recognized registering body.
- c. Present a transcript, diploma, and registration certificate from KMLTTB or another recognized registering body.
- d. Present course syllabi from previous training.
- e. Present an updated CV.
- f. Provide evidence of at least two years' work experience.

CONDITIONS FOR ADVANCEMENT TO CLINICAL YEAR

1. The student should have successfully completed all general education requirements.
2. The student should have successfully completed all science cognates and pre-clinical courses, with a minimum grade of C+.
3. The student should have clearance from the Clinical Year Admissions Committee.
4. The student should have attained an overall GPA of 2.5 or above.

Provisional Admission to Clinical Year

An individual with a grade-point average of less than 2.50 but greater than 2.35, or a student with another deficiency may be admitted to senior year if there are extenuating circumstances and it is the professional judgement of the program of Medical Laboratory Sciences Admissions Committee that the student exhibits reasonable prospects for successful completion of the program. No more than 10% of the admitted class will be comprised of these special-case admissions.

REPEAT POLICY

1. The student will be advised to change his/ her major from MLS if he/she needs to:
 - a. Repeat cognate or main area course more than four times
 - b. Repeat more than four cognate or main area courses.
2. No student will be allowed to take subsequent courses in series if he/she fails the prerequisite course with a C- (minus), D or F, and have to repeat the course. A student will be allowed to continue to the next course with a C (Plain).

GRADUATION REQUIREMENTS

In addition to the requirements for graduation printed in the relevant UEAB Bulletin the following will also be applicable for prospective graduands in the MLS program:

1. An overall cumulative GPA of 2.50 at completion of prescribed courses in the curriculum.
2. A minimum grade of C+ in all science cognates, including each class in a series.
3. A minimum grade of C+ in all MLS courses, pre-clinical and clinical.
4. A minimum GPA of 2.33 in cognates, and 2.50 in all major courses

LICENSING AND REGISTRATION

Each student will be registered with a specified fee by the Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB) upon entry into the Medical Laboratory Sciences program. The board is also responsible for licensing students after completing the degree program and passing the Board exams.

COURSE REQUIREMENTS

BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

SUMMARY

General Education Requirements	19
Core Courses	67
Cognates	44
Clinical Practicum	14
Total	144 Credits

Students in the Medical Laboratory Science program are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
	Vocational Skills	1
MUGR 100	Music Appreciation	2
PSYC 101	Introduction to Psychology	2

GENERAL EDUCATION REQUIREMENT COURSES

19 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		19

CORE COURSES

67 Credits

Code	Course Title	Credits
CLSC 100	Introduction to Clinical Laboratory Science	2
CLSC 105	Medical Terminology	1
CLSC 150	Fundamentals of Clinical Microbiology	3

CLSC 170	Principles of Immunology	3
CLSC 205	Principles of Nuclear Medicine	2
CLSC 206	Principles of Forensic Medicine	2
CLSC 221	Fundamentals of Clinical Chemistry	3
CLSC 231	Fundamentals of Haematology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
CLSC 252	Principles of Food and Water Microbiology	3
CLSC 260	Histologic Techniques	2
CLSC 308	Systemic Pathology	2
CLSC 352	Clinical Virology and Vaccines	3
CLSC 358	Clinical Mycology	3
CLSC 361	Medical Parasitology I	3
CLSC 362	Medical Parasitology II	2
CLSC 390	Introduction to Research Methodology	2
CLSC 393	Laboratory Management	2
CLSC 395	Seminar	1
CLSC 412	Specimen Procurement and Body Fluid Analysis	3
CLSC 421	Clinical Chemistry I	3
CLSC 422	Clinical Chemistry II	3
CLSC 441	Haematology	3
CLSC 442	Haemostasis	2
CLSC 451	Clinical Microbiology	3
CLSC 471	Clinical Immunology	2
CLSC 484	Immunohematology and Transfusion Medicine	4
Total		67

COGNATES

44 Credits

Code	Course Title	Credits
BIOL 111	Human Anatomy and Physiology I	4
BIOL 112	Human Anatomy and Physiology II	4
BIOL 155	Foundations of Biology I	4
BIOL 292	Fundamental of Cell and Molecular Biology	3
BIOL 299	Genetics	3
CHEM 111	Introductory General Chemistry	4
CHEM 113	Principles of Organic and Biochemistry	4
COSC 111	Computational Mathematics I	3
NUTR 234	Nutrition	3
PHHC 290	Community Health and Diagnosis	3
PHNL 202	Statistics in the Health Sciences	3
PHYS 200	Applied Physics and Bioinstrumentation	3
ZOOL 365	Histology	3
Total		44

CLINICAL PRACTICUM

14 Credits

Code	Course Title	Credits
CLSC 476	Specimen Procurement, Handling and Processing	1
CLSC 423	Clinical Chemistry Practicum	2
CLSC 443	Clinical Haematology and Haemostasis Practicum	2
CLSC 455	Clinical Microbiology and Mycology Practicum	2
CLSC 456	Clinical Parasitology Practicum	2

CLSC 463	Histopathology/Cytopathology Practicum	1
CLSC 476	Clinical Immunology and Virology Practicum	1
CLSC 483	Clinical Immunohematology Practicum	2
CLSC 493	Laboratory Management Practicum	1
Total		14

BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES FOR UPGRADERS

SUMMARY

General Education Requirements	19
Core Courses	40
Cognates	38
Clinical Practicum	7
Total	104 Credits

General education requirements exempted for upgraders

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
LITE 151	Introduction to Literary Appreciation	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills	1
Total		22

Core courses exempted for upgraders

Code	Course Title	Credits
CLSC 100	Introductions to Clinical Laboratory Science	2
CLSC 105	Medical Terminology	1
CLSC 230	Fundamental of Haematology	3
CLSC 150	Fundamentals of Clinical Microbiology	3
CLSC 221	Fundamentals of Clinical Chemistry	3
CLSC 260	Histologic Techniques	2
CLSC 170	Principles of Immunology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
CLSC 252	Principles of Food and Water Microbiology	3
CLSC 358	Mycology	3
CLSC 362	Parasitology II	2
Total		27

GENERAL EDUCATION REQUIREMENT COURSES**19 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		19

CORE COURSES**40 Credits**

Code	Course Title	Credits
CLSC 205	Principles of Nuclear Medicine	2
CLSC 206	Principles of Forensic Medicine	2
CLSC 308	Systemic Pathology	2
CLSC 352	Clinical Virology and Vaccines	3
CLSC 361	Medical Parasitology I	3
CLSC 390	Introduction to Research Methodology	2
CLSC 393	Laboratory Management	2
CLSC 395	Seminar	1
CLSC 412	Specimen Procurement and Body Fluid Analysis	3
CLSC 421	Clinical Chemistry I	3
CLSC 422	Clinical Chemistry II	3
CLSC 441	Haematology	3
CLSC 442	Haemostasis	2
CLSC 451	Clinical Microbiology	3
CLSC 471	Clinical Immunology	2
CLSC 484	Immunohematology and Transfusion Medicine	4
Total		40

COGNATE COURSES**38 Credits**

Code	Course Title	Credits
BIOL 111	Human Anatomy and Physiology I	4
BIOL 112	Human Anatomy and Physiology II	4
BIOL 155	Foundations of Biology	4
BIOL 292	Fundamental of Cell and Molecular Biology	3
BIOL 299	Genetics	3
CHEM 111	Introduction to Gen Chemistry	4
CHEM 113	Principles of Organic and Biochemistry	4
COSC 111	Computational Mathematics I	3
PHNL 202	Statistics in the Health Sciences	3
PHYS 200	Applied Physics and Bioinstrumentation	3
ZOOL 365	Histology	3
Total		38

PRACTICUM COURSES**7 Credits**

Code	Course Title	Credits
CLSC 476	Specimen Procurement, Handling and Processing Practicum	1
CLSC 424	Clinical Chemistry Practicum	1
CLSC 444	Clinical Haematology and Haemostasis Practicum	1
CLSC 458	Clinical Microbiology and Mycology Practicum	1
CLSC 485	Clinical Immunohematology Practicum	2
CLSC 493	Laboratory Management Practicum	1
Total		7

Bachelor of Science in MEDICAL LABORATORY SCIENCES

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER						
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	RELH155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1		
	BIOM 113	Human Anatomy	3	1	4	RELT 207	Christian Beliefs	3	0	3		
	CLSC 100	Introduction to Clinical Laboratory Sciences	2	0	2	BIOM 114	Human Physiology	3	1	4		
	ENGL105	Writing Skills	3	0	3	INSY 108	Information Technology for Health Professions	2	0	2		
	MATH101	Computational Mathematics I	3	0	3	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2		
	OFTE120	Keyboarding	0	0	0	CLSC 150	Fundamentals of Clinical Microbiology	2	1	3		
	CLSC 105	Medical Terminology	1	0	1	CLSC 170	Principles of Immunology	2	1	3		
	BIOL 155	Foundations of Biology I	3	1	4	Total						
Total					17	2	19	Total				
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	NUTR 234	Nutrition	3	0	3	RELT255	Introduction to Christian Ethics	2	0	2		
	RELB220	Life and Teachings of Jesus	2	0	2	PHYS 200	Applied Physics and Bioinstrumentation	2	1	3		
	CHEM 111	Introduction to General Chemistry	3	1	4	CLSC 205	Nuclear Medicine	2	0	2		
	CLSC 206	Forensic Medicine	2	0	2	CHEM 113	Principles of Organic and Biochemistry	3	1	4		
	EDUC215	Introduction to Philosophy of Christian Education	2	0	2	CLSC 221	Fundamentals of Clinical Chemistry	2	1	3		
	CLSC 252	Principles of Food and Water Microbiology	2	1	3	CLSC 235	Introduction to Pharmacology and Pharmacognosy	2	0	2		
	CLSC 230	Fundamentals of Hematology	2	1	3	PHNL 202	Statistics in the Health Sciences	3	0	3		
	Total					Total						
16					3	19	16					
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	BIOL 290	Fundamentals of Cell and Molecular Biology	3	0	3	BIOL 499	Genetics	3	0	3		
	PHHC 290	Community Health and Diagnosis	3	0	3	CLSC 352	Clinical Virology and Vaccines	3	0	3		
	ZOOL 365	Histology	2	1	3	CLSC 362	Medical Parasitology II	1	1	2		
	CLSC 393	Laboratory Management	2	0	2	CLSC 390	Research Methodology	2	0	2		
	CLSC 358	Mycology	2	1	3	CLSC 308	Systemic Pathology	2	0	2		
	CLSC 361	Medical Parasitology I	2	1	3	CLSC 421	Clinical Chemistry I	2	1	3		
	CLSC 260	Histologic Techniques	2	0	2	CLSC 441	Hematology	2	1	3		
	Total					Total						
16					3	19	15					
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC		
	CLSC 395	Seminar	1	0	1	CLSC 476	Specimen Procurement, Handling and Processing Practicum	1	0	1		
	CLSC 412	Specimen Procurement and Body Fluid Analysis	2	1	3	CLSC 423	Clinical Chemistry Practicum	2	0	2		
	CLSC 422	Clinical Chemistry II	2	1	3	CLSC 443	Clinical Hematology and Hemostasis Practicum	2	0	2		
	CLSC 442	Hemostasis	1	1	2	CLSC 455	Clinical Microbiology and Mycology Practicum	2	0	2		
	CLSC 451	Clinical Microbiology	2	1	3	CLSC 456	Clinical Parasitology Practicum	2	0	2		
	CLSC 471	Clinical Immunology	1	1	2	CLSC 463	Histopathology/Cytopathology Practicum	1	0	1		
	CLSC 484	Immunohematology & Transfusion Medicine	3	1	4	CLSC 476	Clinical Immunology and Virology Practicum	1	0	1		
						CLSC 483	Clinical Immunohematology Practicum	2	0	2		
					CLSC 493	Laboratory management Practicum	1	0	1			
Total					Total							
12					6	18	14					

COURSE DESCRIPTIONS

CLSC 100 Introduction to the Clinical Laboratory 2 Credits

This is an introduction to the major Clinical Laboratory Science disciplines. A general introduction to laboratory rules and regulations. First aid and cardiopulmonary resuscitation (CPR) principles and applications are also covered clinical conditions/ states requiring first aid such as breathing emergencies, injuries to soft tissue, muscles, bones, joints and sudden illness.

CLSC 105 Medical Terminology 1 Credit

This course provides a detailed study of medical terms and abbreviations that relate to human body parts, human diseases, drugs, and disorders; also covers different health disciplines and the medical terms involved in the respective disciplines. There will be one lecture a week.

CLSC 141 Principles of Hematology and Transfusion Medicine 3 Credits

This course is designed for students taking health-related majors. It introduces the production, maturation and function of normal blood cells and; covers the morphology of the red blood cells, white blood cells and platelets, both for mature and immature cells. Anemia and leukemia are also covered. Normal Hemostasis is introduced. This course also introduces blood group antigen systems and some basic blood bank testing. It covers donor selection, donor unit testing, and possible transfusion reactions. Routine laboratory testing, in hematology, Hemostasis and blood bank are also dealt with. *Prerequisites: BIOM113 and BIOM114*

CLSC 150 Fundamentals of Clinical Microbiology 3 Credits

This course provides an introduction to selection, collection and transport of patient specimen. Cultural characteristics, media, growth requirements, growth curve are studied. Classification, taxonomy, Host-parasite relationship, normal flora, immunity, pathogenicity, antimicrobial agents, resistance; susceptibility testing, disinfection procedures. Common staining procedures. Morphological features, microscopy, cultivation, isolation, staining, metabolic Biochemical, serological and DNA identification methods. *Prerequisite: BIOL 155.*

CLSC 170 Principles of Immunology 3 Credits

Introduces students to the principles and procedures of techniques used today in modern immunology lab. Other topics will cover innate and acquired immunity in humans, immunoglobulin production, structure, function, diversity; antigen characteristic, variety and specific red cell groups; tolerance and memory; complement structure and function; cell-mediated immunity function and regulation; autoimmune disorders; transplantation and tumor immunology; immunodeficiency disorders. There will be two classes and one -three-hour laboratory period a week. *Prerequisite: BIOL 155.*

CLSC 171 Basic Clinical Immunology 3 Credits

This course is designed for students taking health-related majors. The course deals with introductions to immunology: history, definition and terminologies, lymphatic and immune system, cells, tissues, organs, molecular. Resistance and immunity; non-specific and specific immunity. Complement system; proteins activation and biological properties, phagocytes, NK cells, T and B lymphocytes. Immunoglobulins:

structure, production, properties and function; receptors. Antigen-antibody interactions. Genetic basis of immune function: major histocompatibility complex, Antigens; Antigen processing and presentation. Cytokines. Immunity to infections. Immune evasion mechanisms. Immune disorders; auto immunity, immune deficiencies, transplantation and rejection. *Prerequisites: BIOM113 and BIOM114.*

CLSC 205 Principles of Nuclear Medicine 2 Credits

Introduction to radioactive decay mechanisms. Includes radiation spectra, detectors, gas filled solid-state scintillations and detectors. Bone marrow and intestinal studies of iron metabolism, thyroid uptake of radioactive iodine and other radioisotope tests of renal function, vitamin B12 absorption, fat scintigraphy, auto radiographic theory and decay will be studied. The effect of radiation on the cell and mammalian tissues will be studied. Exposure to Geiger Muller counter, radiation dosimeters, film badges, ionization chamber, safe laboratory practice and care of radioisotope patients. There will be two lectures a week. *Prerequisites: Sophomore Standing.*

CLSC 206 Principles of Forensic Medicine 2 Credits

Application of laboratory tests to the legal system. Collection and Processing of blood, hair, semen, saliva, sweat, vomitus, nail clipping, bone teeth and other specimens for forensic diagnostic DNA tests in different cases like identifying paternity, detection of sexual offenses, illegal abortion. Other tests will assist in establishing injuries caused by foreign inanimate objects, like guns. There will be two lectures a week. *Prerequisites: Sophomore Standing.*

CLSC 220 Basic Clinical Chemistry 3 Credits

This course is designed for students taking health-related majors. The course covers biochemical reference values and factors affecting them: principles of sample collection, preservation and storage, precaution to be taken and possible hazards involved. Acid-base balance; water and electrolyte balance, physiology and chemical pathology of renal functions. Clinical chemistry of normal liver function, alterations seen in disease states. Function tests; pulmonary cardiac, hematologic, hepatic, biliary, pancreatic, splenic endocrine, renal and urinary tract. Drugs and their clinical and laboratory effects on biochemical values will be covered. *Prerequisites: CHEM111.*

CLSC 221 Fundamentals of Clinical Chemistry 3 Credits

An introduction to clinical laboratory techniques and procedures, lab safety and application of statistical procedures in quality control. Covers the analytic techniques and instrumentation of the clinical lab – including spectrophotometry, chromatography, electrophoresis, electrochemistry, immunoassays, and nucleic acid probe techniques. Also introduces the assessment of organ system functions like renal, cardiac and liver function. Topics also include an introduction to carbohydrates, lipids, electrolytes and amino acids and proteins. There will be two lectures and one laboratory period a week. *Prerequisites: CHEM 111.*

CLSC 230 Fundamentals of Haematology 3 Credits

Introduces the production, maturation and function of normal blood cells, the abnormal blood cells and the conditions/ disorders caused by them; and hemostasis is introduced – normal hemostasis, coagulation and fibrinolytic factors. The course also introduces blood grouping, and typing, blood group antigens systems, antibody identification and compatibility testing. There will be two lectures and one laboratory period

a week. *Prerequisites:* BIOL 155, BIOM 113, BIOM 114 and CLSC 170.

CLSC 235 Introduction to Pharmacology and Pharmacognosy **3 Credits**

The course will cover an introduction to pharmacology and pharmacognosy. A brief study of pharmacological procedures and principles of drug administration is covered. The importance and role of medicinal plants and natural products in the health care sector is covered. The presence and identification of active ingredients like flavonoids, saponins, anthraquinones, hormones and vitamins present in various medicinal plants is discussed. There will be one lecture and one laboratory period a week. *Prerequisites:* CHEM 111 and CHEM 113.

CLSC 252 Principles of Food and Water Microbiology **2 Credits**

Topics to be covered will include surface counts and total counts in enumeration of bacteria; food examination for pathogens; Analysis of milk by Methylene Blue test turbidity test, phosphatase test. Coliform and colony count tests. Examination for tubercle bacilli, water analysis indicator organisms. Fecal Coliforms and other pathogenic organisms found in water. *Prerequisite:* CLSC 150.

CLSC 253 Basic Clinical Parasitology **3 Credits**

This course is designed for students taking health-related majors. It will cover the pathogenesis and control of mostly parasites of clinical and public health importance. Special emphasis will be placed on serology, symptomatic and microscopic diagnosis of parasitic infections in the routine laboratory and in the community. Data collection and analysis for research in Parasitology both in the clinical setting and community will be covered.

CLSC 260 Histologic techniques **2 Credits**

Introduces student to histologic preparatory techniques including: Microtomy, tissue sectioning and cutting using microtomes and knives, mounting, staining techniques. Staining used for cytopathological techniques. Preparation and decalcification of bone sections. Staining methods for bone, cartilage, connective tissue, elastic fibers, fibrin amyloid, central nervous system, mast and plasma cells, glycogen, mucin, mucopolysaccharides, iron, calcium salts, enzymes and various pigments. Student gains insight into the complex technologies involved in producing the results which today's pathologists are required to interpret. If possible, the course should be taken concurrently with histology. There will be two lectures and one laboratory Period a week.

CLSC 308 Systemic Pathology **2 Credits**

Definition of the subject and methods used in pathology. Disturbances in metabolism of the proteins, lipids, carbohydrates and minerals with development of different degenerative changes. Causes and morphological types of necrosis. Disturbances of circulation and disorders of the body fluid (edema, dehydration). General characteristics of the etiology and mechanism of the development of inflammation, morphological types of inflammation. Definition of the neoplasia. Origin of the tumours. Benign and malignant neoplasms. Types of the growth and spreads of the tumours. The tumour staging and tumour grading. Host reaction of tumours. Classification of the neoplasms. Varieties of the neoplasms. Varieties of the tumours of epithelial and mesenchymal origin. Tumours of

the central nervous system. Lymphomas and Teratomas. The etiology, pathogenesis, morphology, complications and results of various diseases of cardiovascular, respiratory, Digestive, Genitourinary, central nervous, Endocrine and Locomotor systems. *Prerequisite:* Junior Standing.

CLSC 352 Clinical Virology and Vaccines **4 Credits**

Lectures will cover pathogenesis and identification of major viruses. Viral Structure, taxonomy and methods in diagnostic virology will be covered. Organisms covered will be: Respiratory Viruses, Exanthemas, Immunodeficiency Viruses, Central Nervous System viruses, Viral Agents of gastrointestinal Infections, Arboviruses, Arenaviridae, Hantavirus, Filoviridae, Rabies, Human Papilloma Viruses, Hepatitis Viruses and Herpesviruses. A brief study of antiviral therapy will be covered. There will be two lectures and one laboratory period each week. Vaccination: types, factors and techniques of immunization. Adverse reactions, risk-benefit ratio, immunization with multiple antigen, for foreign travel and special populations. Antigenic variation, hepatitis B, Cholera, pertussis, poliomyelitis. Other topics include vaccines for special population, travel to foreign countries, age at immunization and simultaneous immunization with multiple antigens will be covered. Special emphasis is placed on solving case histories and unknowns. There will be three lectures every week. *Prerequisite:* CLSC170.

CLSC 358 Clinical Mycology **3 Credits**

This course covers the general characteristics, taxonomy, clinical sites of infection, specimen collection, handling and transport of fungi. Methods of identification of fungi, direct microscopic examination and culture will be covered. Safety issues will also be emphasized. Agents studied will include superficial mycoses, subcutaneous mycoses, dermatophytes, systemic mycoses and opportunistic fungal infections. *Prerequisite:* CLSC 150.

CLSC 361 Medical Parasitology I **3 Credits**

This includes the study of the medically important parasites like intestinal protozoa such as amoeba, sporozoa, haemo and intestinal flagellates; helminthes; nematodes, cestodes; classification, morphology, life cycle, pathogenesis, epidemiology, diagnosis and control of parasites and their vectors for the purpose of diagnosis. Clinical specimen analysis by direct smear stool microscopy, sedimentation techniques, stool dilution techniques, zinc sulphate centrifugal floatation, Visser pitchford method. Haemoparasites identification by thin and thick smears, Quantitative Blood Count (QBC), Buffy coat layer technique and Diamond's axenic culture method, Novy-Nicolle-MacNeal (NNN) medium, charcoal culture, Schneider's medium. Conventional serological and immunological and DNA techniques. There will be three lectures and one laboratory period a week. *Prerequisite:* Junior Standing.

CLSC 362 Medical Parasitology II **2 Credits**

This course covers the study of vectors of parasitic protozoa, and helminthes. Ectoparasites of medical importance will also be covered. Vectors of medical importance: mosquitoes, Simulium sp., Phlebotomus sp., Lutzomyia sp., Myiasis, fleas, lice bedbugs, triatomine, cockroaches, ticks, mites, mollusks. Their classification, morphology, identification, life cycle, epidemiology, infestation and control will be covered. Clinical laboratory procedures including staining, mounting, and preservation of vectors of medical importance will be done. *Prerequisite:* CLSC 361.

CLSC 390 Introduction to Research Methodology**2 Credits**

Covers special research methods in the area of medical research. Study designs in medical research like observational studies, experimental studies and Intervention studies will be carried out. Case control, cross sectional studies and case series studies will be described. Different types of cohort studies. Steps in proposal development, problem formation, sources of information, questionnaire Methodology. Definition and examples of sample, population, statistic, variables, data. Experimental designs: Completely randomized, randomized block, Latin squares. Introduction to ANOVA. A brief introduction to experimental animal science. All above listed topics will be covered only as they apply to medical and clinical research. There will be two lectures and one problem solving laboratory a week. *Prerequisites: Junior Standing and PHNL 202.*

CLSC 393 Laboratory Management and Administration**2 Credits**

In this course, considerations of basic principles of administration and personnel management, supply sources and inventory control, preparing and monitoring budgets, issues and trends in laboratory medicine, evaluation and selection of new techniques and instruments, and problem solving are dealt with. Includes information systems and professional ethics as applicable to the clinical laboratory. There will be two lectures a week.

CLSC 395 Seminar**1 Credit**

The student will be introduced to different presentation skills and the use of various tools and visual aids when making a scientific seminar. A cooperative research into topics of current interest in the literature will be carried out and presented. Student will make both written and oral presentations on the topic based on current reading. Faculty and guest lectures will contribute to student performance during the seminar. These courses will run for two semesters. The class will meet for one hour each week. *Prerequisite: CLSC 390*

CLSC 412 Specimen Procurement, and Body Fluid Analysis**3 Credits**

The course trains students in venipuncture, skin puncture and collection of other specimens for use in clinical laboratory testing. It covers point of care testing, laboratory safety, specimen collection techniques, hazards/complications, quality assurance methods and medical-legal issues in phlebotomy. There will be one lecture and one laboratory period a week.

CLSC 421 Clinical Chemistry I**3 Credits**

Biochemical constituents of the human body such as lipids, proteins, carbohydrates, electrolytes, enzymes, acid / base substances, heme derivatives, hormones will be studied and analysed, to determine their characteristics, concentrations and their parameters compared to normal physiology and abnormal or pathological cases. Assessment of organ system functions such as liver, cardiac, renal, gastrointestinal, and pancreatic function will be done. There will be three lectures and one laboratory period a week. *Prerequisite: CLSC 221*

CLSC 422 Clinical Chemistry II**3 Credits**

The course will teach the specialty areas of clinical chemistry: therapeutic drug monitoring, toxicology, and tumor markers, geriatric and pediatric clinical chemistry are covered. Macronutrient, vitamin, and trace element nutritional

assessments are done. There will be 2 lectures and one laboratory period a week. *Prerequisite: CLSC 421*

CLSC 441 Haematology**3 Credits**

A study of normal and abnormal blood cells will be carried out, including the morphologies of the cells. Complete blood counts of blood components such as red cells, white cells, and platelets will be done. The different kinds of white cells in a patient's blood will be identified. Anaemia, white blood cell disorders – leukaemias, lymphomas, myelodysplastic syndrome, will be studied. Bone marrow smears will be studied, as necessary to determine the kinds of cells being produced or suppressed in the blood making sites. There will be two lectures and one laboratory period a week. *Prerequisite: CLSC 230*

CLSC 442 Haemostasis**2 Credits**

Haemostasis systems, their function, interaction and monitoring are covered. Topics will cover thrombosis risk testing, qualitative and quantitative vascular and platelet disorders, defects of plasma clotting factors, haemorrhagic coagulation disorders. Interaction of the fibrinolytic, coagulation, and Kinin systems and related pathology will be studied. Evaluation of haemostasis – PT, apt, thrombin clotting time, fibrinolysis tests, reptilase time, single factor assays, will be covered. There will be two lectures and one laboratory period a week. *Prerequisite: CLSC 230*

CLSC 451 Clinical Microbiology**3 Credits**

The course will cover medically important bacteria. The identification of routine and non-routine bacteria: Staphylococcus, Streptococcus, Enterococcus, Neisseria, Moraxella, Corynebacterium, Actinomycetes, Gardnerella, Bordetella, Listeria, Erysipelothrix, Bacillus, Mycobacterium, Fusobacterium, Borellia, Leptospira, Spirillum, Haemophilus, Gardnerella, Bortella, Brucella, Yersinia, Enterobacteriaceae, Campylobacter, Pseudomonas, Pasturella, Vibrio, Francisella, Legionella, Chlamydia, Mycoplasma pneumoniae, Coxiella and Treponema. Automation and quality assurance. Emphasis will be placed on isolation, identification and antimicrobial susceptibility testing of pathogenic bacteria. Epidemiology and mechanisms of pathogenesis of infectious diseases will also be studied. Culture characteristics, clinical manifestations and microscopic morphology will be presented. Lectures, student laboratory instruction and clinical experience will be given. There will be three lectures and one laboratory period a week. *Prerequisite: CLSC 150*

CLSC 471 Clinical Immunology**2 Credits**

Lectures will present the theoretical aspects of basic tests for demonstration of antigen/antibody reactions in relation to disease. Serological testing will include precipitation, agglutination, hemolysin reactions, nephelometry, and immunofluorescence. Pregnancy testing and fractionation of proteins, lipids, and isoenzymes by electrophoresis will also be taught. Lectures, student laboratory instruction and clinical experience will be given. There will be two lectures a week and some specially arranged laboratory sessions if the instructor finds it necessary. *Prerequisite: CLSC 170*

CLSC 484 Immunohematology and Transfusion Medicine**4 Credits**

This course covers blood grouping and typing, blood group system antigens, compatibility testing, antibody detection and identification, grouping and compatibility problem solving, and quality control in the blood bank. Patient clinical state and

correlations are also done. It will also include the organization of blood transfusion service, blood donor recruitment, selection, and phlebotomy. Blood and blood component (fresh frozen plasma, cryoprecipitate, platelet) processing, distribution and therapy are studied. Blood screening for transmissible diseases is also covered. Investigation of transfusion reactions is also included. There will be one lecture and one laboratory period a week. *Prerequisite: CLSC230.*

CLSC 476 Specimen Procurement, Handling and Processing Practicum 1 Credit

Practical applications and rules to follow in specimen collection and processing. Emphasis on the application of professional ethics as patient privacy and rights are taken into consideration. There will be one lecture and one laboratory a week.

CLSC 423 Clinical Chemistry Practicum 2 Credits

A hospital- based experience. Student will be exposed to the detection of various proteins, lipids carbohydrates in various body fluids. The student will be exposed to both manual and automated machines used in diagnosis of these substances in Pathological conditions.

CLSC 443 Clinical Haematology and Haemostasis Practicum 2 Credits

This is a hospital-based practical experience that involves professional health-care experience. Emphasis is placed in the application of haematology and haemostasis procedures to patient-care.

CLSC 455 Clinical Microbiology and Mycology Practicum 2 Credits

Using methods in bacteriology, mycology, parasitology and virology to diagnose disease appropriately. Application of special procedures in patient-care when collecting specimen.

CLSC 456 Clinical Parasitology Practicum 2 Credits

Direct smear stool microscopy, modified Kato technique, modified Bell method, Visser and Pitchford method, modified formol -ether sedimentation techniques, modified formal -ether method for cryptosporidium oocysts, zinc sulphate, Acridine orange, Eosin/saline solution, fields stain, modified field stain, Giemsa stain, Trichome stain, Modified Ziehl-Neelsen method phenol-auramien method, Aceto-alum carmine technique, iron haematoxylin stain, supra-vital stains techniques. Grocotts

modified Gomori stains.ELISA methods, dot blot probe, PCR, Dichotomus keys. Thin and thick blood smears, millipore filter technique, QBC, parasight, Buffy coat layer technique and miniature anion exchange column. 4-10% formalin solution, Bayer solution, Merthiolate iodine formalin (MIF), Polyvinyl alcohol, scaudinn's fixative, Glycerol jelly method., Charcoal culture, Diamond's axenic culture method, Novy-Nicolle-macNeal medium (NNN), Schneider's medium technique.

CLSC 463 Histopathology/Cytopathology Practicum 1 Credits

This is a practical experience to expose students to the basic practice of sectioning, preparing and staining tissues of various specimens for examination by the pathologist.

CLSC 476 Clinical Immunology Virology Practicum 1 Credit

Diagnosis techniques - equipment, specimens, specimen transportation and prevention, media and cells, specimen processing, serology, isolation, detection methods, interpretation of results. Serology: Plasma fixation, neutralization, haemagglutination, inhibition, passive haemagglutination, radial immune haemolysis, ELISA immunofluorescence, radioimmunoassay. Isolation: tissue culturing, culture media, cell lines, culture requirements, virus identification, animal inoculations, chick embryo inoculation, recovery of viruses from animals, harvest of viruses from chick embryo. Detection: recovery of viral and nucleic acids, virions components, nucleotide sequencing, intact nucleic acid isolation, viral proteins isolation.

CLSC 483 Clinical Immunoematology Practicum 2 Credits

A professional health-care laboratory practicum that exposes students to applications of the principles of compatibility testing, antigen/antibody identification and quality control in blood banking procedures. It emphasizes professional health care in the laboratory and patient-care in the haematology laboratory.

CLSC 493 Laboratory Management and Administration Practicum 1 Credit

This practical experience is an exposure to lab administration and personnel management. Students are expected to observe what the lab manager, supervisors do, and how the lab operates in its different aspects and apply the theory.

DEPARTMENT OF NURSING

FACULTY

Korir, I., MScN., PhD in Progress, Head of Department
Poornima, R., PHD.
Villagomez, L., PHD
Nyakundi, N., MScN., PhD in Progress
Susan, L., MScN., PhD in Progress
Akuru, E., MScN.
Kivuva, B., MScN., PhD in Progress
Lagatt, S., MScN.
Nyakundi, N., MScN., PhD in Progress
Kariuki R., MScN.
Korir, A., MScN.
Rono, E., MScN.

Clinical Instructors

Arito, B., BScN., MScN in Progress
Tanui, J. BScN., MScN in Progress
Kivinda, O., BScN.
Lumumba, E., BScN., MScN in Progress
Bilham, T., BScN., MScN in Progress
Jepchirchir, G., BScN.
Mocha, E., BScN.
Patricia, C., BScN.
Ndiema, F., BScN., MScN in Progress
Aliviza, N., BScN.
Korir, J., BScN.
Vuzigwa, R., BScN., MScN in Progress
Kibet, C., BScN.
Mogut, W., BScN., MScN in Progress
Too, B., BScN., MScN in Progress
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PHILOSOPHY

The philosophy and conceptual framework of the bachelor's degree in Nursing at the University of Eastern Africa, Baraton are in accordance with the basic beliefs of the Seventh-day Adventist Church concerning education and health. The concepts identified in this philosophy are God, Man, Society, Health, Nursing, Christian Witnessing, teaching/Learning and Professional Nursing roles. God, the Supreme Being, created man to be a reflection of His being, including His character. Health, or high-level wellness, is "wholeness" as an outcome of following the physical, mental, social and spiritual laws of the universe. Nursing is an art and science that assists man in his attempt to obtain and maintain health at an optimal level.

As nurse educators, we value the importance of a nurse being proficient in knowledge, attitudes and skills.

Students are considered responsible adult learners, with knowledge based on previous life experiences. They are viewed as equal partners in the learning process and, as such will be encouraged to take responsibility for their own personal and professional development.

By virtue of the theory and practical experience in education and research available to students, they are prepared to instruct others on nursing knowledge, attitudes and skills which they have developed. They graduate as both health team members and leaders within the health care systems of their regions.

MISSION

The mission of the Department of Nursing is to enable students to acquire professional nursing and leadership skills in order to provide holistic nursing care to alleviate human suffering and to give Christian witness in diverse health care settings.

VISION

The vision of the Department of Nursing is to be the leading center of excellence in providing quality nursing education, practice, leadership and research.

EXPECTED LEARNING OUTCOMES

At the end of the Nursing program, the student should be able to:

1. Describe historical background of nursing as a profession;
2. Discuss nursing, health care and the value of human life from the physical, psychological, social, spiritual and philosophical dimensions;
3. Integrate human anatomy, physiology and chemistry knowledge into nursing theory and practice;
4. Explain determinants of safe drug administration.
5. Conduct research in Nursing and health care and utilize evidence-based practice in nursing care;
6. Discuss theories and practice of nursing care in maternal and child health.
7. Apply the nursing process in provision of community health services;
8. Demonstrate the utilization of relevant technology for appropriate delivery of health care.
9. Provide care for traumatized patients due to, family abuse, incest, family violence, rape, accidents etc.
10. Practice professional ethics in nursing;
11. Design nursing academic programs;
12. Demonstrate skills in planning and instruction in nursing practice;

PROGRAMS OFFERED BY THE DEPARTMENT

1. Master of Science in Community Health Nursing.
2. Bachelor of Science in Nursing (BScN)

CAREER OPPORTUNITY FOR BScN GRADUATES

1. Clinical Nurse Practitioner
 - a. Midwifery
 - b. Community Health
 - c. Medical Surgical Nursing
 - d. Pediatric Nursing
 - e. Anesthetic Nursing
 - f. Mental Health and Psychiatric Nursing
 - g. Critical care Nursing
 - h. Oncology nursing
 - i. Forensic nursing
 - j. Geriatric nursing
 - k. Trauma and emergency nursing
 - l. Nephrology nursing Etc.
2. Nurse Educator
3. Nurse Researcher
4. Nurse Manager

ADMISSION REQUIREMENTS

The minimum requirements for admission to the University of Eastern Africa, Baraton must be met.

1. There will be an exam for the nursing applicants and interview before admission letters are issued.
2. A mean grade of C+(plus) or better in KCSE, division II or better, or its equivalent, is required for all pre-service students.
3. A grade of C+ or credit in cluster subjects; Mathematics/Physics, Chemistry, (or Physical science), Biology, and English/Kiswahili.
4. Foreign students from non-English speaking countries must have their High School certificates/diplomas translated into English with accompanying statement showing how their system equates to the Kenyan System. Foreign trained nurses must assume responsibility to have their certificates or diplomas translated to English and equated. It is strongly advised that they should apply for registration with the Nursing Council of Kenya before admission to the university.
5. Foreign 'O' level certificates are sent to the Kenya National Examination Council (KNEC) for equation to the Kenyan system. This is done before admission.
6. For Registered Nurses, a mean grade of C plain, or Division II, diploma certificate and a current practice license from the Nursing council of Kenya, and 2 years' experience are required.
7. For enrolled nurses, a mean grade of C+ or better in KCSE or Division II in KCE, including a C+ or Credit pass in the following: Biology, Chemistry, Mathematics/Physics and English; OR according to provisions that may be made by the Nursing Council of Kenya.
8. School of Nursing Checklist.

Students who are admitted to UEAB with the necessary admission requirements for a BScN degree program are considered as pre-clinical nursing students. Upon attainment of required grades in nursing cognate subjects, students proceed to (clinical) professional nursing courses.

INTERDEPARTMENTAL TRANSFER

A student wishing to change to Nursing should refer to the section "Interdepartmental Transfer" in the Bulletin. Transfer to Nursing must be completed during the First trimester before beginning nursing. The student must have a 'O' level mean grade of C+ and C+ in each of the cluster subjects.

Students admitted as pre-major are NOT eligible for inter-departmental transfer.

PROGRESSION FROM PRE-CLINICAL

1. The Department of Nursing will conduct an interview identify evidence of personal integrity, intellectual rigor, good physical, mental, and social health, self-discipline, and self-direction, when registering students for clinical nursing courses.
2. Pre-clinical course requirements include:
 - a. A grade of B- (minus) or better in each cognate.
 - b. Completion of ALL cognates with a minimum of 38 credits. No appeals will be considered.
3. Nursing intakes are in January and September and the Student is indexed within 60 days of admission at the University by the Nursing Council of Kenya at that time

CLINICAL COURSES

All clinical experiences of nursing courses are offered in various clinical sites country wide. The students are expected to report

to their assigned sites as per rotation. There may be some occasions when the theory will also be offered in the clinical sites. The nursing faculty will assist the students in locating accommodation. While in clinical sites, students are expected to conduct themselves according to UEAB main campus policies.

PROGRESSION FOR ALL NURSING STUDENTS

1. All students must earn a grade of B- in cognates and B- in clinical nursing courses before progressing to the next course. For most nursing courses there is a practicum and theory component. A grade for these courses consists of theory and practicum marks. Theory comprises 60% and Practicum 40%. A student who fails to achieve a passing grade in the clinical component of a course, despite passing the theory component, will be required to repeat the entire course. Conversely, a student who fails the theory component but successfully completes the clinical component will be eligible to sit for a supplementary examination. The highest grade a student can attain in a supplementary examination is a B- (minus).
2. **No more than three (3) nursing courses (cognates and core) should be repeated. A course may be repeated once only. A student who fails to meet either of the two requirements will be discontinued from the Nursing program.**
3. Marriages are discouraged while students are admitted to nursing programs. Pregnancies are discouraged during nursing studies due to the nature of the program. In case of childbirth, the student will have to defer for two trimesters.
4. Alcohol and other substances abuse is prohibited and once found it will lead to dismissal from the nursing program
5. Nursing courses taken more than 4 years previously will not be accepted for continuing in the program. Students must ensure continuity of study.

UPGRADING STUDENTS TO BSCN FROM REGISTERED NURSE (RN) REGISTERED NURSE MIDWIFE (RN/M), REGISTERED COMMUNITY HEALTH NURSE (RCHN)

Progression from diploma to degree (Bachelor of Science in Nursing (BScN) /Bachelor of Science in Midwifery (BScM) must possess;

- (i) Either Kenya Registered Community Health Nursing (KRCHN), Kenya Registered Nursing (KRN), Kenya Registered Nurse/Midwife (KRN/M), Kenya Registered Nursing/Mental Health and Psychiatry (KRN/MHP) or Kenya Registered Midwifery (KRM) certificate issued by the Nursing Council of Kenya.
- (ii) Achieved mandatory 2 years work experience
- (iii) A valid practice license
- (iv) Nurses/Midwives trained outside Kenya & licensed by the Council must seek clearance before progression

REQUIREMENTS FOR CREDIT TRANSFER

1. Students on BScN program who want to transfer credits from other Universities must submit official transcripts, nursing council of Kenya index number and release letter from their previous institutions. Course descriptions of syllabi will be required to determine the details of a course in order to determine the content covered. See Bulletin on the section of credit transfer for more information.
2. An updated C.V. (for upgraders only).
3. An official transcript showing marks and grades that were attained in the professional education.

4. Applicants who have been trained in other health related areas other than Nursing are not eligible to request for transfer of credits in the School of Nursing. They must take all the Nursing courses.

REQUIREMENTS FOR GRADUATION

A candidate for the **Generic Bachelor of Science Nursing Degree (direct entry students)** should complete a minimum of 155 credits of which:

1. A total of **35** credits in Cognate courses with an overall GPA of at least 2.67. In sequence courses, a grade of B- or above is required for each course.
2. A total of **96** credits in Core courses with a minimum grade of B- (G.P.A of 2.67) in each Nursing Course is required.
3. A total of **24** credits of General Education Requirement (GR) courses should be covered. A minimum of D plain (G.P.A of 1.00).

COURSE REQUIREMENTS

Students on the RN-BScN track should complete a minimum of 128 credits of which:

75 credits are of Nursing Core courses,
31 credits of cognates
22 credits of general requirements.

Students on the RN/RM track should complete a minimum of 121 Credits of which:

68 credits of Nursing Core courses
31 credits of Cognates
22 credits of general requirements

Students on the RCHN track complete a minimum of 116 credits of which:

63 credits of Nursing Core Courses
31 credits of Cognates
22 credits of general education requirements

COURSE REQUIREMENTS

BACHELOR OF SCIENCE IN NURSING

SUMMARY

General Education Requirements	24
Core	96
Cognates	35
Total	155 Credits

Please note: Direct entry international students, except those from Tanzania, are required to take KISW 114 Language Skills In Kiswahili as a general requirement course.

Nursing students are exempted from the following courses:

Code	Course Title	Credits
LITE 151	Introduction to Literary Appreciation	2
KISW 114	Language Skills In Kiswahili	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2

BIOL 105	Human Biology	2
NRSG 100	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2

Nursing students take the following General Education Requirements as cognates

Code	Course Title	Credits
PSYC 101	Introduction to Psychology	2
SOCI 121	Sociology	2

GENERAL EDUCATION REQUIREMENT COURSES

24 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		24

CORE COURSES

96 Credits

Code	Course Title	Credits
NRSG 101	Professionalism in Nursing	2
NRSG 212	Health Assessment	3
NRSG 216	Foundations of Nursing	6
NRSG 220	Pharmacology in Nursing I	3
NRSG 221	Pharmacology in Nursing II	3
NRSG 226	Medical Surgical Nursing I	5
NRSG 227	Medical -Surgical Nursing II	5
NRSG 245	Gerontology and Palliative Care Nursing	2
NRSG 239	Midwifery I	5
NRSG 240	Human Pathology	2

NRSG 248	Community Health Nursing I	5
NRSG 318	Mental Health and Psychiatry Nursing	5
NRSG 323	Pathophysiology	3
NRSG 328	Pediatrics and Child Health Nursing	6
NRSG 339	Midwifery II	5
NRSG 346	Trauma, Emergency and Forensic Nursing	5
NRSG 348	Critical Care Nursing	5
NRSG 413	Curriculum and Instruction in Nursing	5
NRSG 410	Gynecology and Reproductive Health Issues	5
NRSG 422	Nursing Management and Leadership Nursing	6
NRSG 423	Nursing Research I	3
NRSG 431	Nursing Research Project	2
NRSG 439	Community Health Nursing II	5
Total		96

COGNATE COURSES

35 Credits

Code	Course Title	Credits
BIOM 113	Human Anatomy	4
BIOM 114	Human Physiology	4
BIOL 245	Medical Microbiology	4
CHEM 115	Basic Medical Biochemistry I	4
CHEM 116	Basic Medical Biochemistry II	3
CLSC 171	Basic Clinical Immunology	3
CLSC 253	Basic Clinical Parasitology	3
NUTR 234	Nutrition	3
PSYC 101	Introduction to Psychology	2
SOCI 121	Introduction to Sociology	2
STAT 200	Fundamentals of Biostatistics	3
Total		35

Note: No minor is required for Nursing Majors.

For Upgrading Nurses on the RN to BScN completion track, the requirements will be as follows depending on their type of Diploma

BACHELOR OF SCIENCE IN NURSING FOR UPGRADERS

SUMMARY

General Education Requirements	22
Core	75
Cognates	31
Total	128 Credits

Nursing students upgrading from RN General to BScN are exempt from the following General Education Requirements

Code	Course Title	Credits
ENVI 227	Environment and society	2
	Vocational skills	1
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0

LITE 151	Introduction to Literary appreciation	2
AGRI 105	Principles of Agricultural Technology	2
KISW 114	Language Skills In Kiswahili	2
MGMT 103	Basic Management and Entrepreneurial skills	2
BIOL 105	Human Biology	2
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2

Nursing students upgrading from RN General to BScN are exempted from the following cognate courses

Code	Course Title	Credits
PSYC 101	Introduction to Psychology	2
SOCI 121	Sociology	2

Nursing students upgrading from RN (General) to BScN will be exempted from the following core courses

Code	Course Title	Credits
NRSG 216	Nursing Foundation	6
NRSG 226	Medical-Surgical Nursing. I	5
NRSG 227	Medical -Surgical Nursing II	5
NRSG 101	Professionalism in Nursing	2

GENERAL EDUCATION REQUIREMENT COURSES

22 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111 / MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
Total		22

CORE COURSES

75 Credits

Code	Course Title	Credits
NRSG 212	Health Assessment	3
NRSG 220	Pharmacology in Nursing I	3
NRSG 221	Pharmacology in Nursing II	3
NRSG 239	Midwifery I	5
NRSG 240	Human Pathology	2
NRSG 245	Gerontology And Palliative Care Nursing	2
NRSG 248	Community Health Nursing I	5
NRSG 318	Mental Health and Psychiatry Nursing	5
NRSG 323	Pathophysiology	3
NRSG 328	Pediatrics and Child Health Nursing	5
NRSG 339	Midwifery II	5
NRSG 346	Trauma, Emergency and Forensic Nursing	5

NRSG 348	Critical Care Nursing	5
NRSG 413	Curriculum and Instruction in Nursing	5
NRSG 412	Reproductive Health Nursing II	3
NRSG 422	Nursing Management and Leadership	6
NRSG 423	Nursing Research I	3
NRSG 431	Nursing Research Project	2
NRSG 439	Community Health Nursing	5
Total		75

COGNATE COURSES

31 Credits

Code	Course Title	Credits
BIOM 113	Human Anatomy	4
BIOM 114	Human Physiology	4
BIOL 245	Medical Microbiology	4
CHEM 115	Basic Medical Biochemistry I	4
CHEM 116	Basic Medical Biochemistry II	3
CLSC 171	Basic Clinical Immunology	3
CLSC 253	Basic Clinical Parasitology	3
NUTR 234	Nutrition	3
STAT200	Fundamentals of Biostatistics	3
Total		31

BACHELOR OF SCIENCE IN NURSING FOR UPGRADERS WITH RM SPECIALIZATION

SUMMARY

General Education Requirements	22
Core	68
Cognates	31
Total	121 Credits

Nursing students upgrading from RN with RM Specialization to BScN are exempt from the following General Education Requirements Courses

Code	Course Title	Credits
ENVI 227	Environment and society	2
	Vocational skills	1
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0
LITE 151	Introduction to Literary appreciation	2
AGRI 105	Principles of Agricultural Technology	2
KISW 114	Language Skills In Kiswahili	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2

Nursing students upgrading from RN with RM to BScN are exempted from the following Cognate courses

Code	Course Title	Credits
PSYC 101	Introduction to Psychology	2
SOCI 121	Sociology	2

Nursing students upgrading from RN with RM to BScN will be exempted from the following Core courses

Code	Course Title	Credits
NRSG 239	Midwifery I	5
NRSG 216	Nursing Foundations	6
NRSG228	Medical-Surgical Nursing I	6
NRSG 227	Medical -Surgical Nursing II	5
NRSG 101	Professionalism in Nursing	2
NRSG 339	Midwifery II	5
NRSG 410	Gynecology And Reproductive Health Issues	4

GENERAL EDUCATION REQUIREMENT COURSES

22 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111/ MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
Total		22

CORE COURSES

68 Credits

Code	Course Title	Credits
NRSG 212	Health Assessment	3
NRSG 220	Pharmacology in Nursing I	3
NRSG 221	Pharmacology in Nursing II	3
PHNL 202	Biostatistics in Public Health	3
NRSG 240	Human Pathology	2
NRSG 245	Gerontology And Palliative Care Nursing	2
NRSG 248	Community Health Nursing I	5
NRSG 318	Mental Health and Psychiatry Nursing	5
NRSG 323	Pathophysiology	3
NRSG 328	Pediatrics and Child Health Nursing	5
NRSG 334	Reproductive Health Nursing I	3
NRSG 346	Trauma, Emergency and Forensic Nursing	5
NRSG 348	Critical Care Nursing	5
NRSG 413	Curriculum and Instruction in Nursing	5
NRSG 412	Reproductive Health Nursing II	3
NRSG 422	Nursing Management and Leadership	6
NRSG 423	Nursing Research I	3
NRSG 431	Nursing Research Project	2
NRSG 439	Community Health Nursing II	5
Total		68

COGNATE COURSES**31 Credits**

Code	Course Title	Credits
BIOM 113	Human Anatomy	4
BIOM 114	Human Physiology	4
BIOL 245	Medical Microbiology	4
CHEM 115	Basic Medical Biochemistry I	4
CHEM 116	Basic Medical Biochemistry II	3
CLSC 171	Basic Clinical Immunology	3
CLSC 253	Basic Clinical Parasitology	3
NUTR 234	Nutrition	3
STAT200	Fundamentals of Biostatistics	3
Total		31

BACHELOR OF SCIENCE IN NURSING FOR UPGRADERS WITH RCHN SPECIALIZATION

SUMMARY

General Education Requirements	22
Core	63
Cognates	31
Total	116 Credits

Nursing students upgrading from RCHN to BScN are exempt from the following General Education Requirements Courses

Code	Course Title	Credits
ENVI 227	Environment and society	2
	Vocational skills	1
PEAC 107	Physical and Recreational Activities	1
OFTE 120	Keyboarding	0
LITE 151	Introduction to Literary appreciation	2
AGRI 105	Principles of Agricultural Technology	2
KISW 114	Language Skills In Kiswahili	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2

Nursing students upgrading from RCHN to BScN are exempted from the following Cognate courses

Code	Course Title	Credits
PSYC 101	Introduction to Psychology	2
SCI 121	Sociology	2

Nursing students upgrading from RCHN with RM to BScN will be exempted from the following Core courses

Code	Course Title	Credits
NRSG 239	Midwifery I	5
NRSG 215	Nursing Foundations	6
NRSG228	Medical-Surgical Nursing I	6
NRSG 227	Medical -Surgical Nursing II	5
NRSG 101	Professionalism in Nursing	2

NRSG 339	Midwifery II	5
NRSG 410	Gynecology and Reproductive Health Issues	4
NRSG 248	Community Health Nursing I	5

GENERAL EDUCATION REQUIREMENT COURSES**22 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107 / INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
COSC 111/ MATH 100	Computational Mathematics I/ Foundations of Mathematics	3
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
Total		22

CORE COURSES**63 Credits**

Code	Course Title	Credits
NRSG 212	Health Assessment	3
NRSG 220	Pharmacology in Nursing I	3
NRSG 221	Pharmacology in Nursing II	3
NRSG 240	Human Pathology	2
NRSG 245	Gerontology And Palliative Care Nursing	2
NRSG 318	Mental Health and Psychiatry Nursing	5
NRSG 323	Pathophysiology	3
NRSG 328	Pediatrics and Child Health Nursing	5
NRSG 334	Reproductive Health Nursing I	3
NRSG 346	Trauma, Emergency and Forensic Nursing	5
NRSG 348	Critical Care Nursing	5
NRSG 413	Curriculum and Instruction in Nursing	5
NRSG 412	Reproductive Health Nursing II	3
NRSG 422	Nursing Management and Leadership	6
NRSG 423	Nursing Research I	3
NRSG 431	Nursing Research Project	2
NRSG 439	Community Health Nursing II	5
Total		63

COGNATE COURSES**31 Credits**

Code	Course Title	Credits
BIOM 113	Human Anatomy	4
BIOM 114	Human Physiology	4
BIOL 245	Medical Microbiology	4
CHEM 115	Basic Medical Biochemistry I	4
CHEM 116	Basic Medical Biochemistry II	3
CLSC 171	Basic Clinical Immunology	3
CLSC 253	Basic Clinical Parasitology	3
NUTR 234	Nutrition	3
STAT200	Fundamentals of Biostatistics	3
Total		31

BACHELOR OF SCIENCE IN NURSING

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER				
1st	Code	Course Title	T	L	TC
	BIOM 113	Human Anatomy	3	1	4
	CHEM 115	Basic Medical Biochemistry I	4	0	4
	NRSG 101	Professionalism in Nursing	2	0	2
	SOCI 121	Introduction to Sociology	2	0	2
	PSYC 101	Psychology	2	0	2
	COSC 111	Computational Mathematics I	3	0	3
	RELH 151	Adventist Heritage	2	0	2
	Total		18	1	19
	2nd SEMESTER				
	BIOM 114	Human Physiology	4	0	4
	CHEM 116	Basic Medical Bio-Chemistry II	3	0	3
	CLSC 171	Basic Clinical Immunology	3	0	3
	EDUC 215	Philosophy of Christian Education	2	0	2
	ENGL 106	Speech Communication	1	0	1
	KISW 114	Language Skills In Kiswahili (International Students)	2	0	2
	NUTR 234	Nutrition	3	0	3
	ENGL 105	Writing Skills	3	0	3
	Total		21	0	21
	3rd SEMESTER				
	Code	Course Title	T	L	TC
	CLSC 253	Basic Clinical Parasitology	2	1	3
	NRSG 220	Pharmacology in Nursing I	3	0	3
	INSY 108	Information Technology for Health Professionals	2	0	2
	PEAC 107	Physical and Recreational Activities	1	0	1
	BIOL 245	Basic Medical Microbiology	3	1	4
	NRSG 240	Human Pathology	2	0	2
	Total		13	2	15
YEAR	1st SEMESTER				
2nd	Code	Course Title	T	L	TC
	NRSG 216	Nursing Foundations	4	2	6
	NRSG 212	Health Assessment	2	1	3
	NRSG 221	Pharmacology in Nursing II	3	0	3
	OFTE 120	Keyboarding	0	0	0
	Total		9	3	12
	2nd SEMESTER				
	NRSG 226	Medical -Surgical Nursing I	3	2	5
	NRSG 323	Pathophysiology	3	0	3
	RELT 207	Christian Beliefs	3	0	3
		Vocational Skills	1	0	1
	Total		10	2	12
	3rd SEMESTER				
	Code	Course Title	T	L	TC
	NRSG 227	Medical -Surgical Nursing II	3	2	5
	NRSG 245	Gerontology and Palliative Care Nursing	2	0	2
	STAT 200	Fundamentals of Bio-statistics	3	0	3
	Total		7	4	11

YEAR	1st SEMESTER				
3rd	Code	Course Title	T	L	TC
	NRSG 239	Midwifery I	3	2	5
	NRSG 248	Community Health Nursing I	3	2	5
	RELB 220	Life and Teachings of Jesus	2	0	2
	Total		8	4	12
	2nd SEMESTER				
	NRSG 339	Midwifery II	4	2	6
	NRSG 245	Nursing Research I	3	0	3
	Total		7	2	9
	3rd SEMESTER				
	Code	Course Title	T	L	TC
	NRSG 328	Pediatrics and Child Health Nursing	4	2	6
	NRSG 318	Mental Health Nursing	3	2	5
	RELT 255	Introduction to Christian Ethics	2	0	2
	Total		9	4	13

YEAR	1st SEMESTER				
4th	Code	Course Title	T	L	TC
	NRSG 346	Trauma, Emergency and Forensic Nursing	3	2	5
	NRSG 348	Critical Care Nursing	3	2	5
	NRSG 431	Nursing Research Project	2	0	2
	Total		8	4	12
	2nd SEMESTER				
	NRSG 422	Nursing Leadership and Management	4	2	6
	NRSG 410	Gynecology and Reproductive Health Issues	3	2	5
	Total		7	4	11
	3rd SEMESTER				
	Code	Course Title	T	L	TC
	NRSG 439	Community Health Nursing II	3	2	5
	NRSG 413	Curriculum and Instruction in Nursing	3	2	5
	Total		6	4	10

BACHELOR OF SCIENCE IN NURSING FOR UPGRADERS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOM 113	Human Anatomy	4	0	4	BIOM 114	Human Physiology	4	0	4
	CHEM 115	Basic Medical Biochemistry I	3	0	3	CHEM 116	Basic Medical Bio-Chemistry II	3	0	3
	COSC 111	Computational Mathematics I	3	0	3	CLSC 171	Basic Clinical Immunology	3	0	3
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	RELH 151	Adventist Heritage	2	0	2	NUTR 234	Nutrition	3	0	3
	Total		15	0	15	Total		14	0	14
	3rd SEMESTER									
	Code	Course Title	T	L	TC					
	EDUC 215	Philosophy of Christian Education	2	0	2					
	CLSC 253	Basic Clinical Parasitology	3	0	3					
	NRSG 220	Pharmacology in Nursing I	3	0	3					
	BIOL 245	Basic Medical Microbiology	4	0	4					
	INSY 108	Information Technology for Health Professionals	2	0	2					
	Total		14	0	14					

YEAR	1st SEMESTER					2nd SEMESTER				
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	NRSG 212	Health Assessment	3	0	3	PHDT 220	Bio-statistics	3	0	3
	NRSG 221	Pharmacology in Nursing II	3	0	3	NRSG 323	Pathophysiology	3	0	3
	NRSG 240	Human Pathology	2	0	2	NRSG 239	Midwifery II	6	0	6
	NRSG 245	Gerontology and palliative care Nursing	2	0	2	RELB 220	Life and Teachings of Jesus	2	0	2
	Total		10	0	10	Total		14	0	14
	3rd SEMESTER									
	Code	Course Title	T	L	TC					
	NRSG 328	Pediatrics and Child Health Nursing	5	0	5					
	NRSG 318	Mental Health Nursing	3	0	3					
	RELT 207	Christian Beliefs	3	0	3					
	Total		11	0	11					

YEAR	1st SEMESTER					2nd SEMESTER				
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	NRSG 422	Nursing Leadership and Management	6	0	6	NRSG 423	Nursing Research I	3	0	3
	NRSG 410	Gynecology and Reproductive Health Issues	4	0	4	NRSG 346	Trauma, Emergency and Forensic Nursing	5	0	5
	RELT 255	Introduction to Christian ethics	2	0	2	NRSG 348	Critical Care Nursing	5	0	5
	Total		12	0	12	Total		13	0	13
	3rd SEMESTER									
	Code	Course Title	T	L	TC					
	NRSG 431	Nursing Research Project	2	0	2					
	NRSG 439	Community Health Nursing II	5	0	5					
	NRSG 413	Curriculum and Instruction in Nursing	5	0	5					
	Total		12	0	12					

COURSE DESCRIPTIONS

NRSB 100 First Aid 1 Credit

This course teaches how to manage illness and injuries in the first few minutes until professional help arrives. This course will include Cardiopulmonary Resuscitation (CPR). This course is specifically designed for those who have a duty to respond to a first aid or cardiac emergency because of job responsibilities or regulatory requirements. Also, appropriate for the average citizen who wants to be prepared in the event of a cardiac arrest or serious life threatening injury.

NRSB 110 Health Principles 2 Credits

This course does not apply towards a Nursing Major. It is offered for non-nursing Majors in the University as a general education requirement. This course provides an introduction to important concepts of health which is composed of physical, mental, social and spiritual-philosophical dimensions. University students are guided to recognize responsibilities and opportunities for improving and protecting their own health as well as that of their community. Students are led to identify unhealthy behavior and measures to correct them. This course is offered during the freshman year and must be taken at that time.

NRSB 101 Professionalism in Nursing 2 Credits

This course introduces the philosophy and conceptual framework of our school of nursing and to nursing roles and functions. It includes nursing history, trends, legalities and ethics essential to nursing behavior. Critical thinking skills are applied in the nursing process to provide Wholistic care to clients and families. Tools of communication, teaching and learning, problem solving, spiritual care.

NRSB 212 Health Assessment 3 Credits

This course is designed to assist the student to apply the knowledge gained in the Anatomy and Physiology and Chemistry courses. It offers experience in developing a beginning level of skill in history taking and physical assessment of the adult client in accident situation and medical emergencies.

It provides opportunity to master assessment skills in various areas relevant to nursing practice. Three clock hours of lab practice sessions are required each week in addition to the two credits of theory. The course carries 2 credit hours of theory and 1 credit hour of practical in campus lab. *Prerequisites: All Cognates.*

NRSB 216 Foundations of Nursing 6 Credits

This course is a continuation of NRSB101. It focuses on the philosophy and conceptual framework of our school of nursing and to nursing roles and functions. It includes nursing history, trends, legalities and ethics essential to nursing behavior. Critical thinking skills are applied in the nursing process and learning of basic skills to provide wholistic care to clients and families. Tools of communication, teaching and learning, problem solving, spiritual care and basic skills are practiced in the campus nursing skills lab and hospital.

The course consists of 4 theory hours per week and 6 laboratory hours per week. *Prerequisites: All Cognates and NRSB 101.*

NRSB 220 Pharmacology in Nursing I 3 Credits

This course is designed to introduce students to drug therapy in order to provide safe patient care. The learner will be guided to

acquire knowledge in drug administration, major classification of drugs, commonly used drugs, special dosing, indications, side effects, interactions, pharmacodynamics, pharmacokinetics and nursing considerations. In addition, necessary information to provide patient and family teaching will be covered. The course carries 3 hours of theory. *Prerequisites: All cognates.*

NRSB 221 Pharmacology in Nursing II 4 Credits

This course is a continuation of Pharmacology I. The learner is expected to learn more on drugs affecting different body systems like CNS, vitamins and mineral supplements, hormonal agents and drug and substance toxicity. *Prerequisite: NRSB 220.*

NRSB 226 Medical Surgical Nursing I 4 Credits

This course builds upon those concepts and skills learned in NRSB 212 It focuses on nursing interventions that promote optimum well-being and restoration among medical and surgical patients. In addition, principles of operating room techniques and administration of medications are explored. The main concepts include Respiratory, Cardiovascular, Hematological, Endocrine system, Reproductive and Genitourinary disorders. This course provides 3 credit hours of theory and 1 credit hour of practice in a general hospital setting. *Prerequisites: NRSB 240, NRSB 212 and NRSB 216.*

NRSB 227 Medical Surgical Nursing II 4 Credits

This course is a continuation of NRSB228. It focuses on nursing interventions that promote optimum well-being and restoration among medical and surgical patients. In addition, principles of operating room techniques and administration of medications are explored. The main concepts include musculoskeletal system, nervous system, integumentary system, gastrointestinal system disorders. This course provides 3 credit hours of theory and 1credit hour of practice in a general hospital setting. *Prerequisites: NRSB 226, NRSB 212 and NRSB 216.*

NRSB 239 Midwifery I 5 Credits

This course will equip the learner with knowledge, skills, and attitude regarding midwifery. The Emphasis is on preconception care reproductive physiology, health assessment and health promotion of expectant mothers during each trimester of pregnancy. The students will learn about normal physiologic changes in both normal and high-risk pregnancy. Students rotate in antenatal clinic, antenatal ward and family planning clinics. The course provides 3 hours of theory and 2 hours of practicum. *Prerequisite: NRSB 226, NRSB 221, NRSB 240.*

NRSB 240 Human Pathology 4 Credits

This course is designed to enable the students to apply concepts and principles of human pathology in providing nursing care. Emphasis is on pathogenesis of diseases, neoplasms, metabolic and pigmentation disorders and genetic disorders. This course provides 5 hours of theory per week. *Prerequisites: BIOM 113 and BIOM 114.*

NRSB 245 Gerontology and Palliative Care Nursing 2 Credits

This course helps the students to gain knowledge in the care of the aged population and palliative care. In addition, principles in nursing care of the aged population will be explained. The course provides 2 hours of theory per week. *Prerequisite: NRSB 226, NRSB 221, NRSB 240.*

NRSG 248 Community Health Nursing I 6 Credits

This course is designed as an introduction to the roles and functions of the Community Health Nurse. Comprehensive community health nursing services to individuals, families and community across life cycle cohorts are emphasized. The students will learn concepts of community based healthcare which includes; organizing outreach health programs, immunization, environmental and occupational health. Health promotion, prevention and treatment of communicable and vector borne disease.

The course provides 4 credit hours of theory and 2 credit hours of practicum per week (280 contact Hours). *Prerequisite:* NRSG 239.

NRSG 318 Mental health and Psychiatry Nursing 5 Credits

This Course will explore foundational concepts and principles of nursing care and assessment related to mental health and psychiatric disorders, forensic, legal and ethical issues in the mental health hospital and/or community settings. It will cover problems related to lifestyle, disturbed sensorium and current problems and trends in mental health nursing practice using an evidence based approach.

The course provides 3 hours of theory and 3 hours of practical experience per week in various mental health settings. *Prerequisites:* NRSG 240, NRSG 226, NRSG 221.

NRSG 323 Pathophysiology 3 Credits

This course is designed to give understanding of the major pathological processes which occur in the body due to diseases. Emphasis is on interrelationships among organ system in deviations from homeostasis. It facilitates in sound judgement and set priorities in the principles of pathology of underlying illness and injury to therapeutic nursing interventions and outcomes. This course provides three hours of theory. *Prerequisites:* NRSG 240.

NRSG 328 Pediatrics and Child Health Nursing 6 Credits

This course is a study of nursing care of children from infancy through adolescent. The emphasis is on the concept of growth, development and the total health needs of children including prevention and treatment of medical and surgical illness occurring this period.

This course provides 4 hours of theory and 2 hours practical component which gives the student experience in caring for the pediatric client as well as interacting with his/her family. *Prerequisites:* NRSG 248 NRSG 323.

NRSG 334 Reproductive Health Nursing I 3 Credits

This course focuses on the intrapartum, post-partum, and neonatal periods. It emphasizes nursing responsibilities for high risk pregnancies labor and delivery, operative obstetrics, postpartum and neonatal periods. It includes supportive care for the family during childbirth. Parents are assisted in integrating the newborn infant into the family setting. Roles of family members to provide for maternal - infant bonding are included as well as the concept of sibling rivalry. The course provides 2 hours of theory and 1 hour of clinical practice in antenatal ward, delivery room, post-natal ward, newborn unit and neonatal ICU. *Prerequisites:* NRSG NRSG 248.

NRSG 339 Midwifery II 6 Credits

This course focuses on the Intra-partum, post-partum and

neonatal period. The course also will equip the learner with knowledge, skills and attitudes to be able to apply the concept of Obstetrics and midwifery in managing normal labor and high risk labor and obstetric emergencies.

The course provides 4 hours of theory per week and 13 weeks of clinical in labor ward (480 Contact hours). *Prerequisites:* NRSG 239.

NRSG 346 Trauma, Emergency and Forensic Nursing 5 Credits

This course introduces the student to the concepts related to implementing care to patients at risk. Assessment and examination techniques will be utilized in determining the variables that place clients at risk. Triage principles will be utilized to determine patients who need priority care. Students are guided to acquire appropriate knowledge and skills needed to provide safe care to clients with medical, surgical, trauma, psychiatric, obstetric and gynecological emergencies. This course also prepares students for the intensive care and high dependency experience. Students also rotate in ENT clinic, Ophthalmology clinic, Dermatology clinic, Emergency and outpatient department.

The course provides 3 hours of theory and 2 hours of clinical practice per week. *Prerequisites:* NRSG 323 and NRSG 339.

NRSG 348 Critical Care Nursing 5 Credits

The course provides practice in an acute tertiary medical setting. The students are introduced to intensive care, cardiac care unit and renal dialysis units. Learners will have the opportunity to develop skills in caring for patients with cardiovascular, renal, trauma and neurological conditions. They will utilize relevant technology like, cardiac monitoring, blood gases analysis, organ transplant monitoring, cardiothoracic surgery monitoring, hemodialysis, mechanical ventilation, CPR, etc.

This course provides 3 hours of theory and 2 hours of practical (96 Contact hours). *Prerequisites:* NRSG 323 and NRSG 339, *Co-requisite:* NRSG 346.

NRSG 413 Curriculum and Instruction in Nursing 5 Credits

The course builds upon the teaching-learning tools presented in NRSG 216. It equips the learner with knowledge, skills, and attitudes to be able to describe the learning process and factors that promote learning and retention. Additional Educational Psychology content allows the student to progress from patient care and health education instruction to teaching other health workers and other Nursing cadres. Basic principles of measurement and evaluation are presented. Practice sessions are required for students to plan and teach class sessions in their own and various nursing curriculum using varied instructional media. The course provides 3 hours of theory and 2 hours of teaching practice in a nursing college. *Prerequisites:* All 300 series courses.

NRSG 412 Reproductive Health II 3 Credits

The course teaches management and nursing care of gynecological conditions associated with pregnancy and child birth such as fistulas, infertility, STI's abortion, menstrual disorders, ectopic pregnancy and reproductive oncology. Students utilize the nursing process to provide care for women who are victims of trauma in pregnancy, family abuse, incest, domestic violence and rape. Emotional support and counselling for the family is also included. The course provides 2 hours of

theory and 1 hour of clinical practice. The course is designed for the RN/M – BScN track. *Prerequisite: NRS 334.*

NRS 410 Gynecology and Reproductive Health Issues 4 Credits

The course teaches management and nursing care of gynecological conditions associated with pregnancy and child birth, such as fistulas, infertility, STI's abortion, menstrual disorders, ectopic pregnancy and reproductive oncology. The course will enable the learner to provide care to clients who are victims of sexual violence, sexual dysfunction, domestic violence and rape. Students acquire knowledge and attitudes regarding Female Genital Mutilation and gender analysis and application in health. The course provides 3 hours of theory and 2 hours of clinical practice. *Prerequisites: NRS 328, NRS 339 and NRS 318.*

NRS 422 Nursing Leadership and Management 6 Credits

This course is devised to enable each student to learn the functions of management that make the delivery of nursing care effective. It will provide the learner with knowledge and skills on leadership and manage healthcare services and its resources in diverse setting. The course provides 4 hours of theory and 2 hours of clinical practice (120 Contact Hours). *Prerequisites: NRS 346, NRS 348 and NRS 413.*

NRS 423 Nursing Research I 3 Credits

This course provides knowledge in research methods and utilization needed for giving evidence-based nursing care

and critically evaluating nursing literature. The outcome and experience are then used to write a complete research proposal. The course provides 3 hours of theory. *Prerequisites: NRS 248, NRS 323, STAT 200 and ENGL 105.*

NRS 431 Nursing Research Project 2 Credits

This course builds upon NRS 423: Introduction to Nursing Research I. It focuses on implementing a research project, critique of nursing research and literature relating to evidence-based practice. Students are required to do an oral presentation/defense in 20 minutes and to write publishable articles at the end of their project.

The course provides 2 hours of theory and 2 hours per week for clinical practice (90 Contact hours). *Prerequisite: NRS 423.*

NRS 439 Community Health Nursing II 6 Credits

This course provides advanced knowledge in Community Health Nursing I. It provides both theoretical and practical skills in Community Leadership and Management. Theoretical Concepts in community towards development of community health projects and programs are addressed. Students will also be required to learn how to manage disasters of different kinds, community diagnosis, epidemiological studies, vital health statistics and demography. The course provides 4 credit hours of theory and 2 Credit hours of clinical practice (120 Contact hours). *Prerequisites: NRS 422.*

DEPARTMENT OF PUBLIC HEALTH

FACULTY

Barongo, A., MPH., PhD in progress (Ag. Head of Department)
Atika, S., MSc., PhD in Progress
Omambia, B., MSc., PhD in progress
Sirya, E. MPH, MSc, PhD in progress

Field Instructors

Biwott, E. BSc. PH
Abwao M., BSc.PH
Maritim, M., BSc.PH

Email: hod_publichealth@ueab.ac.ke

PHILOSOPHY

The department operates on the Seventh-day Adventist worldview which holds that God is the Creator and Sustainer of the universe and life and is the source of true knowledge. God wishes "above all things" that we "prosper and be in good health" (3John 1:2). As public health professionals, we therefore, encourage practices that promote mental, spiritual, physical and social wholeness through preventing and controlling various aspects that affect the health of the community.

MISSION

The department endeavors to fulfill health needs through training students on health issues, with emphasis on disease prevention, promotion of environmental awareness, physical fitness, and research. In this process, it will be guided by Biblical principles and the philosophy of Christian education.

VISION

The vision of the Department of Public Health is to lead in the training of health-care professionals who will serve in positions where they may effectively and efficiently witness for God through sound stewardship and healthful living.

EXPECTED LEARNING OUTCOMES

At the end of the Public Health programme the graduate should be able to:

1. Demonstrate requisite knowledge in public health and the health-care system.
2. Manage public health programmes at local, regional and international levels while working as team members in health care.
3. Conduct and disseminate research in varied areas of public health and environmental health practice.
4. Implement preventive and promote health activities.
5. Plan, implement and evaluate sanitation and hygiene programmes.
6. Apply measures to prevent and control communicable and non-communicable diseases.
7. Monitor and promote food hygiene, safety and quality control standards.
8. Conduct disease surveillance to monitor health and control disease outbreaks.
9. Conduct environmental and sanitary inspections including environmental health impact assessment and audit.
10. Monitor and promote occupational safety and health activities in work places including disaster preparedness, management and response.
11. Plan, implement and evaluate training programmes for

environmental health workers and other related health professionals.

11. Formulate and develop environmental health policies.
12. Enforce laws, regulations and treaties/ conventions under relevant acts relating to public health and environmental health.
13. Assess the need for and participate in continuing professional development for health workers.
14. Perform effectively as public health professionals while integrating faith in their practice.

PROGRAMS OFFERED BY THE DEPARTMENT

1. Bachelor of Science in Public Health (Environmental Health Option).
2. Bachelor of Science in Public Health (Biomedical Data Management Option).
3. Bachelor of Science in Public Health (Fitness and Wellness Management Option).
4. Upgrading program to BSc.PH (Environmental Health Option)
5. Minor in Public Health.
6. Minor in Biomedical Data Management
7. Minor in Fitness and Wellness Management
8. Diploma in Environmental Health.
9. Diploma in Health Informatics
10. Diploma in Sport Science
11. Master of Global Health.
12. Master of Public Health;
 - a. Generalist and Health Promotion Option
 - b. Epidemiology and Disease Control Option

CAREER OPPORTUNITIES IN PUBLIC HEALTH

Public health graduates can work within the government within the Ministry of Health / other relevant ministries or with Non-Governmental Organizations (NGOs) such as World Health Organization (WHO), Red Cross, Care International, ADRA, AMREF, UNESCO or with local non-profit organization. The job titles undertaken include:

1. Public Health Officer
2. Public Health Specialist/ Consultant
3. Public Health Researcher
4. Public Health Educator
5. Public Health Manager
6. Food safety officers
7. Occupational Health officers
8. Health promoters and educators
9. Epidemiologists
10. Disease surveillance specialists
11. Policy makers
12. Research assistant / manager
13. Field Assistant / manager
14. Project officer/ manager
15. Biomedical Data Managers
16. Data Analysts
17. Fitness Managers
18. Wellness specialists

ADMISSION REQUIREMENTS

Direct Entry

I) Bsc Public Health (Environmental Health Option)

A student who wishes to be admitted into the public health program BSc Public health (Environmental Health Option) under direct entry must have:

1. Satisfied the minimum entry requirements of the University of Eastern Africa, Baraton, which is a mean grade of C+ (plus) at KCSE or division II or better or its equivalence is required for all pre-service students.
2. Attained a mean grade of C+ or above at the KCSE level or its equivalent and have at least the following specific course grades:

a. Biology	C+
b. Chemistry	C+
c. Mathematics/Physics	C+
d. English/Kiswahili	C+
3. Foreign students from non-English speaking countries must have their high school certificates/ diplomas translated into English with accompanying statement showing how their system equates to the Kenyan System. Foreign trained public health officers must assume responsibility to have their certificates or diplomas translated to English and equated.
4. Foreign "O" level certificates are sent to the Kenya National Examination Council (KNEC) for equation to the Kenyan System before admission.
5. Attained the minimum Public Health Officers and Technicians Council minimum requirements.

NB:

Students admitted as pre-major are NOT eligible for inter-departmental transfer

II) Bsc Public Health (Biomedical Data Management)

A student who wishes to be admitted into the BSc Public Health Program (Biomedical Data Management) Option under direct entry must have:

1. Satisfied the minimum entry requirements of the University of Eastern Africa, Baraton, which is a mean grade of C+ (plus) at KCSE or division II or better or its equivalence is required for all pre-service students.
2. Attained a mean grade of C+ or above at the KCSE level or its equivalent and have at least the following specific course grades:

a. Mathematics/Physics C+
b. English/Kiswahili C+
c. Biology C (plain)
d. Chemistry C- (Minus)
3. Foreign students from non-English speaking countries must have their high school certificates/ diplomas translated into English with accompanying statement showing how their system equates to the Kenyan System. Foreign trained public health officers must assume responsibility to have their certificates or diplomas translated to English and equated.
4. Foreign "O" level certificates are sent to the Kenya National Qualification Authority (KNQA) for equation to the Kenyan System before admission.

III) Bsc Public Health (Fitness and Wellness Management)

A student who wishes to be admitted into the BSc Public Health Program (Fitness and Wellness Options) under direct entry must have:

1. Satisfied the minimum entry requirements of the University of Eastern Africa, Baraton, which is a mean grade of C+ (plus) at KCSE or division II or better or its equivalence is required for all pre-service students.

2. Attained a mean grade of C+ or above at the KCSE level or its equivalent and have at least the following specific course grades:

a. Mathematics/Physics C- (minus)
b. English/Kiswahili C (Plain)
c. Biology C (plain)
d. Chemistry C (plain)
3. Foreign students from non-English speaking countries must have their high school certificates/ diplomas translated into English with accompanying statement showing how their system equates to the Kenyan System. Foreign trained public health officers must assume responsibility to have their certificates or diplomas translated to English and equated.
4. Foreign "O" level certificates are sent to Kenya National Qualification Authority (KNQA) for equation to the Kenyan System before admission.

Interdepartmental Transfer

A student who wishes to transfer into public health from other degree programs may do so, provided that he/she has met the UEAB admissions requirements of a C+ average in KCSE; attained the minimum grade score in the cluster subjects for entry to any of the Public Health programs and have a minimum grade of C+ in the following subjects: MATH104; BIOL117 & BIOL118; CHEM103 & CHEM105; PHHC120; PHHC140; and PHEH110.

Upgrading Students

Applicants who hold diploma in public health may be admitted into the BSc.PH program if they meet the following conditions:

1. Have obtained a minimum grade of C (plain) in the Kenya Certificate of Secondary Education (KCSE) or Division II or its equivalent.
2. Hold a diploma in Public Health or other health related courses such as Nursing, Clinical Medicine and Medical Laboratory Sciences from a recognized institution.
3. Provide a transcript, an updated curriculum vitae (CV) and course syllabi from the diploma program in which the qualification was obtained to facilitate evaluation and transfer of credits.
4. Have at least two years of relevant work experience in public health or other health related areas.
5. Pass requisite examination on selected courses which are approved by the department.

CREDIT TRANSFER

A student hoping to be exempted from doing some courses offered at the university or receive credit transfer is expected to:

- a) Petition by filling the credit transfer application form available in the registrar's office.
- b) An updated CV (for upgraders only)
- c) An official transcript showing marks and / or grades that were attained for all courses previously done.
- d) A course syllabus/ outlines.
- e) The student must have scored a minimum grade of a C+ or its equivalent or better in the equivalent course being considered for credit transfer or exemption.
- f) The credit transfer /exemption will consider differential training like in Public Health, Nursing, Medical laboratory Sciences, Clinical Medicine and Pharmacy and notified in writing by the registrar.
- g) A minimum of 18 and a maximum of 40 credits may be transferred or exempted both in the core, specialization and cognate courses.

POLICY FOR REPEATING CLASSES

1. A public health student may repeat a course twice only.
2. A student will only be allowed to repeat a maximum of 7 courses; no more than 2 cognate courses, 2 core courses and 3 specialization courses can be repeated.

COURSE LOAD/ CREDIT HOURS – TEACHING CONTACT HOURS

In order to complete the BSc.PH degree in 4 years, students must take a minimum of 18 credits hours during each of the two semesters of each academic year. The Public health courses have been organized wherein: One credit hour represents two hours of lecture OR 2 hours of tutorial OR a three-hour laboratory period / field work per week for 15 weeks in a semester. This is to enable the students meet the contact hours as prescribed by the regulatory body – the Public Health Officers and Technicians Council (PHOTC).

GRADUATION REQUIREMENTS

A. Direct entry (Generic and Certificate holders / Diploma from non-health related) to – BSc.PH (Environmental Health Option)

To graduate with a BSc.PH (Environmental Health Option), a student must have:

1. A minimum of 149 credit hours with an overall GPA of at least 2.33.
2. A total of at least 88 credits in Public health with no grade less than a C+ in all core courses and an overall GPA of at least 2.33 in the core courses.
3. A total of 39 credits for cognates with an overall cognate GPA of 2.33 and no grade less than a C.
4. A total of 22 General Education Requirement (GR) courses

B. Upgrader (BSc.PH (Environmental Health Option) from Diploma in Environmental Health

To graduate with a BSc.PH (Environmental Health Option), a student must have:

1. A minimum of 110 credit hours with an overall GPA of at least 2.33.
2. A total of at least 77 credits in Public health with no grade less than a C+ in all core courses and an overall GPA of at least 2.33 in the core courses.
3. A total of 16 credits for Cognates with an overall cognate GPA of 2.33 and no grade less than a C.
4. A total of 17 General Education Requirement (GR) courses with no grade less than a D.

C. Upgrader (BScPH (Environmental Health Option) from Diploma in other health related programs

To graduate with a BSc.PH (Environmental Health Option), a student must have:

1. A minimum of 117 credit hours with an overall GPA of at least 2.33.
2. A total of at least 84 credits in Public health with no grade less than a C+ in all core courses and an overall GPA of at least 2.33 in the core courses.
3. A total of 16 credits for cognates with an overall cognate GPA of 2.33 and no grade less than a C.
4. A total of 17 General Education Requirement (GR) courses with no grade less than a D.

D. Direct entry (Generic and Certificate holders / Diploma from non-health related) to – BSc.PH (Biomedical Data Management Option Option)

To graduate with a BSc.PH (Biomedical Data Management Option), a student must have:

1. A minimum of 149 credit hours with an overall GPA of at least 2.33.
2. A total of at least 91 credits in Public health with no grade less than a C in all core courses and an overall GPA of at least 2.33 in the core courses.
3. A total of 34 credits for cognates with an overall cognate GPA of 2.33 and no grade less than a C.
4. A total of 24 General Education Requirement (GR) courses attaining university passing grade of D.

E. Direct entry (Generic and Certificate holders / Diploma from non-health related) to – BSc.PH (Fitness and Wellness Management Option)

To graduate with a BSc.PH (Environmental Health Option), a student must have:

1. A minimum of 149 credit hours with an overall GPA of at least 2.33.
2. A total of at least 91 credits in Public health with no grade less than a C in all core courses and an overall GPA of at least 2.33 in the core courses.
3. A total of 34 credits for cognates with an overall cognate GPA of 2.33 and no grade less than a C.
4. A total of 24 General Education Requirement (GR) courses attaining university passing grade of D

COURSE REQUIREMENTS

BACHELOR OF SCIENCE IN PUBLIC HEALTH (ENVIRONMENTAL HEALTH OPTION)

SUMMARY

General Education Requirements	22
Core	43
Specialization	45
Cognates	39
Total	149 Credits

Students in public health are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
COSC 111	Computational Mathematics I	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
LITE 151	Introduction to Literary Appreciation	2
INSY 107	Information Technology Today	2
PSYC 101	Introduction to Psychology	2
	Music Appreciation	2
Total		26

GENERAL EDUCATION REQUIREMENT COURSES

22 Credits

Code	Course Title	Credits
ENGL 106	Speech Communication	1
FREN 103	Beginning French II	2
ENGL105	Writing Skills	3
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
EDUC 215	Philosophy of Christian Education	2
INSY 108	Information Technology for Health Professionals	2
SWFI 207	Family Issues	2
OOTE 120	Keyboarding	0
	Vocational skills	1
Total		22

CORE COURSES

43 Credits

Code	Course Title	Credits
PHEP 100	Principles of Epidemiology	3
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHBH 170	Health, Behavior and Society	2
PHHC 190	Health Care Skills	2
PHNL 202	Biostatistics in Health Sciences	3
PHHC 290	Community Health and Diagnosis	3
PHHC 296	Rural Attachment	1
PHHC 340	Health Education & Promotion	2
PHNT 330	Public Health Nutrition	2
PHHC 370	Geographical Information Systems in Public Health	2
PHHD 410	Disaster Management and Response	2
PHEP 424	Communicable Disease Prevention and Control	3
PHEP 426	Non-Communicable Disease Prevention and Control	2
PHHC 460	Management of Health Services	3
PHHC 461	Project Planning and Evaluation	2
PHHC 470	Public Health Law	2
PHHC 495	Research Methods	3
PHHC 497	Research Project	2
Total		43

SPECIALIZATION COURSES

45 Credits

Code	Course Title	Credits
PHEH 110	Introduction to Environmental Health	3
PHEH 160	Biology of Food Animals	3
PHEH 224	Urbanization, Planning and Land Survey	2
PHEH 226	Technical Drawing and Design	2
PHEH 229	Public Health Principles of Building and Construction	3
PHEH 250	Water Quality Control	3
PHEH 263	Conservancy and Drainage Systems	2
PHEH 350	Vector and Rodent Control	2
PHEH 295 / FDNT 200	Biotechnology and Health / Food Biotechnology and Health	2/2

PHEH 310	Principles of Environmental Toxicology	2
PHEH 330	Meat Inspection and Hygiene	3
PHEH 340	Food Quality Control	3
PHEH 361	Solid Waste Management	2
PHEH 362	Liquid Waste Management	2
PHEH 400	Occupational Health and Safety	2
PHEH 430	Port Health	2
PHEH 440	Environmental Systems, Planning and Impact Assessment	2
PHEH 470	Pollution and Pollution Control	2
PHEH 487	Professional Practice	3
Total		45

COGNATES

39 Credits

Code	Course Title	Credits
BIOL 117	Human Anatomy	3
BIOL 118	Human Physiology	3
BIOL 286	General Ecology	3
CHEM 103	Principles of General Chemistry	3
CHEM 105	Introductory Organic and Biochemistry	3
NUTR 234	Human Nutrition	3
INSY 236 / PHSC 290	Micro-Computer Applications / Computer Applications in Public Health	3
CLSC 171	Basic Clinical Immunology	3
CLSC 251	Principles of Medical Microbiology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
CLSC 254	Medical Parasitology	3
ECON 201	Introduction to Principles of Economics	2
MATH 104	Applied Mathematics in Health & Allied Sciences	3
PHPC 225	Applied Physics in Public Health	2
Total		39

BACHELOR OF SCIENCE IN PUBLIC HEALTH (Environmental Health Option) FOR UPGRADERS (Diploma in Environmental Health)

SUMMARY

General Education Requirements	17
Core	35
Specialization	42
Cognates	16
Total	110 Credits

Public Health students upgrading from Diploma in Environmental Health are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1

INSY 107	Information Technology Today	2
LITE 151	Introduction to Literary Appreciation	2
COSC 111	Computational Mathematics I	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
MUGR 100	Music Appreciation	2
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1
Total		26

Public Health students upgrading from Diploma in Environmental Health are exempted from the following Public Core Courses

Code	Course Title	Credits
PHHC 170	Health, Behaviour and Society	2
PHHC 190	Health Care Skills	2
PHHC 290	Community Health and Diagnosis	3
PHHC 296	Rural Attachment	1
Total		8

Public Health students upgrading from Diploma in Environmental Health are exempted from the following specialization Courses

Code	Course Title	Credits
PHEH 110	Introduction to Environmental Health	3
Total		3

Public Health students upgrading from Diploma in Environmental Health are exempted from the following Cognate Courses

Code	Course Title	Credits
NUTR 234	Human Nutrition	3
ECON 201	Principles of Economics	2
BIOL 117	Human Anatomy	3
BIOL 118	Human Physiology	3
BIOL 286	General Ecology	3
CHEM 103	Principles of General Chemistry	3
CHEM 105	Introductory Organic and Biochemistry	3
MATH 104	Applied Mathematics in Health & Allied Sciences	3
Total		23

GENERAL EDUCATION REQUIREMENT COURSES

17 Credits

Code	Course Title	Credits
ENGL 106	Speech Communication	1
ENGL105	Writing Skills	3
INSY 108	Information Technology for Health Professionals	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES

35 Credits

Code	Course Title	Credits
PHEP 100	Principles of Epidemiology	3
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHNL 202	Biostatistics in Health Sciences	3
PHNT 330	Public Health Nutrition	2
PHHC 340	Health Education & Promotion	2
PHHC 370	Geographical Information Systems in Public Health	2
PHHD 410	Disaster Management and Response	2
PHEP 424	Communicable Disease Prevention and Control	3
PHEP 426	Non-Communicable Disease Prevention and Control	2
PHHC 460	Management of Health Services	3
PHHC 461	Project Planning and Evaluation	2
PHHC 470	Public Health Laws	2
PHHC 495	Research Methods	3
PHHC 497	Research Project	2
Total		35

SPECIALIZATION COURSES

42 Credits

Code	Course Title	Credits
PHEH 160	Biology of Food Animals	3
PHEH 224	Urbanization, Planning and Land Survey	2
PHEH 226	Technical Drawing and Design	2
PHEH 229	Public Health Principles of Building and Construction	3
PHEH 250	Water Quality Control	3
PHEH 263	Conservancy and Drainage Systems	2
PHEH 350	Vector and Rodent Control	2
PHEH 295/	Biotechnology and Health /	2
FDNT 200	Food Biotechnology and Health	2
PHEH 310	Principles of Environmental Toxicology	2
PHEH 330	Meat Inspection and Hygiene	3
PHEH 340	Food Quality Control	3
PHEH 361	Solid Waste Management	2
PHEH 362	Liquid Waste Management	2
PHEH 400	Occupational Health and Safety	2
PHEH 430	Port Health	2
PHEH 440	Environmental Systems, Planning and Impact Assessment	2
PHEH 470	Pollution and Pollution Control	2
PHEH 487	Professional Practice	3
Total		42

COGNATES

16 Credits

Code	Course Title	Credits
INSY 236/	Micro-Computer Applications /	3
PHSC 290	Computer Applications in Public Health	
CLSC 171	Basic Clinical Immunology	3
CLSC 251	Principles of Medical Microbiology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
CLSC 254	Medical Parasitology	3

PHPC 225	Applied Physics in Public Health	2
Total		16

RECOMMENDED COURSES FOR CHALLENGE EXAMINATION 5 Credits

The student may be allowed to challenge the following courses by sitting for a challenge examination or final examination for the course.

Code	Course Title	Credits
PHEH 160	Biology of Food Animals	3
PHEH 224	Urbanization, Planning and Land Survey	2
Total		5

BACHELOR OF SCIENCE IN PUBLIC HEALTH (Environmental Health Option) FOR UPGRADERS (Diploma from other programs)

SUMMARY

General Education Requirements	17
Core	39
Specialization	45
Cognates	16
Total	117 Credits

Public Health students upgrading from Diploma in health related courses are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
INSY 107	Information Technology Today	2
LITE 151	Introduction to Literary Appreciation	2
COSC 111	Computational Mathematics I	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
MUGR 100	Music Appreciation	2
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1
Total		26

Public Health students upgrading from Diploma in health related courses are exempted from the following Public Core Courses

Code	Course Title	Credits
PHHC 170	Health, Behaviour and Society	2
PHHC 190	Health Care Skills	2
Total		4

GENERAL EDUCATION REQUIREMENT COURSES 17 Credits

Code	Course Title	Credits
ENGL 106	Speech Communication	1
ENGL105	Writing Skills	3
INSY 108	Information Technology for Health Professionals	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES 39 Credits

Code	Course Title	Credits
PHEP 100	Principles of Epidemiology	3
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHNL 202	Biostatistics in Health Sciences	3
PHHC 290	Community Health and Diagnosis	3
PHHC 296	Rural Attachment	1
PHHC 340	Health Education & Promotion	2
PHNT 330	Public Health Nutrition	2
PHHC 370	Geographical Information Systems in Public Health	2
PHHD 410	Disaster Management and Response	2
PHEP 424	Communicable Disease Prevention and Control	3
PHEP 426	Non-Communicable Disease Prevention and Control	2
PHHC 460	Management of Health Services	3
PHHC 461	Project Planning and Evaluation	2
PHHC 470	Public Health Law	2
PHHC 495	Research Methods	3
PHHC 497	Research Project	2
Total		39

SPECIALIZATION COURSES 45 Credits

Code	Course Title	Credits
PHEH 110	Introduction to Environmental Health	3
PHEH 160	Biology of Food Animals	3
PHEH 226	Technical Drawing and Design	2
PHEH 229	Public Health Principles of Building and Construction	3
PHEH 224	Urbanization, Planning and Land Survey	2
PHEH 250	Water Quality Control	3
PHEH 350	Vector and Rodent Control	2
PHEH 263	Conservancy and Drainage Systems	2
PHEH 295/	Biotechnology and Health /	2 /
FDNT 200	Food Biotechnology and Health	2
PHEH 310	Principles of Environmental Toxicology	2
PHEH 330	Meat Inspection and Hygiene	3
PHEH 310	Principles of Environmental Toxicology	2
PHEH 330	Meat Inspection and Hygiene	3
PHEH 340	Food Quality Control	3

PHEH 362	Liquid Waste Management	2
PHEH 361	Solid Waste Management	2
PHEH 400	Occupational Health and Safety	2
PHEH 430	Port Health	2
PHEH 440	Environmental Systems, Planning and Impact Assessment	2
PHEH 470	Pollution and Pollution Control	2
PHEH 487	Professional Practice	3
Total		45

COGNATES

16 Credits

Code	Course Title	Credits
INSY 236/ PHSC 290	Micro-Computer Applications / Computer Applications in Public Health	3
CLSC 171	Basic Clinical Immunology	3
CLSC 251	Principles of Medical Microbiology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
CLSC 254	Medical Parasitology	3
PHPC 225	Applied Physics in Public Health	2
Total		16

BACHELOR OF SCIENCE IN PUBLIC HEALTH (BIOMEDICAL DATA MANAGEMENT OPTION)

SUMMARY

General Education Requirements	24
Core	43
Specialization	48
Cognates	34
Total	149 Credits

Students doing BSc in Public Health (Biomedical Data Management option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
INSY 107	Information Technology Today	2
LITE 151	Introduction to Literary Appreciation	2
COSC 111	Computational Mathematics I	3
OFTE 120	Keyboarding	0
MUGR 100	Music Appreciation	2
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
Total		23

GENERAL EDUCATION REQUIREMENT COURSES

24 Credits

Code	Course Title	Credits
ENGL 106	Speech Communication	1
FREN 103	Beginning French II	2
ENGL105	Writing Skills	3
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
EDUC 215	Philosophy of Christian Education	2
INSY 108	Information Technology for Health Professionals	2
SWFI 207	Family Issues	2
OFTE 120	Keyboarding	0
	Vocational skills	1
MGMT 103	Basic Management and Entrepreneurial Skills	2
Total		24

CORE COURSES

43 Credits

Code	Course Title	Credits
PHEP 100	Principles of Epidemiology	3
PHEH 110	Introduction to Environmental Health	3
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHBH 170	Health, Behavior and Society	2
PHHC 190	Health Care Skills	2
PHNL 202	Biostatistics in Health Sciences	3
PHHC 290	Community Health and Diagnosis	3
PHNT 330	Public Health Nutrition	2
PHHC 340	Health Education & Promotion	2
PHHC 370	Geographical Information Systems in Public Health	2
PHEP 424	Communicable Disease Prevention and Control	3
PHEP 426	Non-Communicable Disease Prevention and Control	2
PHHC 460	Management of Health Services	3
PHHC 461	Project Planning and Evaluation	2
PHEH 295 / FDNT 200	Biotechnology and Health / Food Biotechnology and Health	2 / 2
PHHC 495	Research Methods	3
PHHC 497	Research Project	2
Total		43

SPECIALIZATION COURSES

48 Credits

Code	Course Title	Credits
PHDT 211	Biomedical Data Management I	3
PHDT 212	Biomedical Data Management II	3
PHDT 213	Biomedical Data Management III	3
PHDT 330	Analytical Applications for Statistical Packages	3
PHDT 340	Data Presentation	3
PHDT 385	Advanced Biostatistics	3
PHDT 420	Survey Research Methods	3
PHDT 440	Advanced Data Analysis	3
INSY 228	Computer Ethics	3

INSY 211	Relational Database Management Systems	3
INSY 305	Management Information systems	3
COSC 304	Formal Methods for Software Engineering	3
COSC 343	Foundations of Human-Computer Interaction	3
COSC 261	Operating Systems	3
COSC 440	Artificial Intelligence	3
PHDT 420	Professional Practice	3
Total		48

COGNATES

34 Credits

Code	Course Title	Credits
BIOL 117	Human Anatomy	3
BIOL 118	Human Physiology	3
CHEM 103	Principles of General Chemistry	3
CHEM 105	Introductory Organic and Biochemistry	3
PHSC 290	Computer Applications in Public Health	3
FDNT 234	Nutrition	3
CLSC 171	Basic Clinical Immunology	3
CLSC 251	Principles of Medical Microbiology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
CLSC 254	Medical Parasitology	3
MATH 104	Applied Mathematics in Health & Allied Sciences	3
PHPC 225	Applied Physics in Public Health	2
Total		34

BACHELOR OF SCIENCE IN PUBLIC HEALTH (FITNESS AND WELLNESS MANAGEMENT OPTION)

SUMMARY

General Education Requirements	24
Core	45
Specialization	46
Cognates	34
Total	149 Credits

Students in public health are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HIST 111	Concepts of World Civilization	2
HLED 110	Health Principles	1
INSY 107	Information Technology Today	2
LITE 151	Introduction to Literary Appreciation	2
COSC 111	Computational Mathematics I	3
OFTE 120	Keyboarding	0
MUGR 100	Music Appreciation	2
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
Total		23

GENERAL EDUCATION REQUIREMENT COURSES

24 Credits

Code	Course Title	Credits
ENGL 106	Speech Communication	1
FREN 103	Beginning French II	2
ENGL105	Writing Skills	3
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
EDUC 215	Philosophy of Christian Education	2
INSY 108	Information Technology for Health Professionals	2
SWFI 207	Family Issues	2
OFTE 120	Keyboarding	0
	Vocational skills	1
MGMT 103	Basic Management and Entrepreneurial Skills	2
Total		24

CORE COURSES

45 Credits

Code	Course Title	Credits
PHEP 100	Principles of Epidemiology	3
PHEH 110	Introduction to Environmental Health	3
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHBH 170	Health, Behavior and Society	2
PHHC 190	Health Care Skills	2
PHNL 202	Biostatistics in Health Sciences	3
PHHC 290	Community Health and Diagnosis	3
PHNT 330	Public Health Nutrition	2
PHHC 340	Health Education & Promotion	2
PHHC 370	Geographical Information Systems in Public Health	2
PHHD 410	Disaster Management and Response	2
PHEP 424	Communicable Disease Prevention and Control	3
PHEP 426	Non-Communicable Disease Prevention and Control	2
PHHC 460	Management of Health Services	3
PHHC 461	Project Planning and Evaluation	2
PHEH 295/ FDNT 200	Biotechnology and Health / Food Biotechnology and Health	2 / 2
PHHC 495	Research Methods	3
PHHC 497	Research Project	2
Total		45

SPECIALIZATION COURSES

46 Credits

Code	Course Title	Credits
PHEH 340	Food Quality Control	3
PHHC 150	Nutrition and Health through the Life Cycle	3
PHHC 160	Principles of Health and Wellness	2
PHHC 330	Injury Prevention	3
PHHC 240	Psychology and Sociology of Sports	3
PHHC 280	Nutrition, Fitness and Consumer Health	3
PHHC 315	Athletic Training	3
PHHC 350	Exercise Science	3
OFAD 315	Office Administration, Ethics and Public Relations	3

HTMG 322	Facility and Property Management	3
DTSC 334	Nutrition Care Process	3
DTCS 360	Nutrition Education and Counselling	3
PHEH 400	Occupational Health and Safety	2
PHHC 450	Health Appraisals and Wellness Testing	3
PHHC 480	Administration of Wellness Programs	3
PHHC 490	Professional Practice	3
Total		46

COGNATES

34 Credits

Code	Course Title	Credits
BIOL 117	Human Anatomy	3
BIOL 118	Human Physiology	3
CHEM 103	Principles of General Chemistry	3
CHEM 105	Introductory Organic and Biochemistry	3
NUTR 234	Human Nutrition	3
INSY 236 / PHSC 290	Micro-Computer Applications / Computer Applications in Public Health	3
CLSC 171	Basic Clinical Immunology	3
CLSC 251	Principles of Medical Microbiology	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	2
Total		34

CREDIT TRANSFERS

18-40 Credits

Diploma holders in other public health related areas are allowed to challenge examinations and exempted for up to 40 credit hours.

- The credit transfer / exemption will consider differential training like in Nursing, Medical laboratory Sciences, Clinical Medicine and Pharmacy.
- A minimum of 18 and a maximum of 40 credits may be transferred or exempted.
- Applicant may be exempted from cognates.

PHHC 461	Project Planning and Management *	2
PHEH 470	Pollution & Pollution Control	2
Total		33

NB:

* Development Studies students taking a minor in Public Health are exempted from PHHC 461- Project Planning and Management Course

MINOR IN BIOMEDICAL DATA MANAGEMENT

SUMMARY

Core	31
Total	31 Credits

CORE COURSES

31 Credits

Code	Course Title	Credits
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHEP 100	Principles of Epidemiology	3
PHDT 211	Biomedical Data Management I	3
PHDT 212	Biomedical Data Management II	3
PHDT 213	Biomedical Data Management III	3
PHHC 290	Community Health and Diagnosis	3
PHDT 330	Analytical Applications of Statistical Packages	3
PHDT 340	Data Presentation	3
PHDT 385	Advanced Biostatistics	3
PHNL 202	Biostatistics in Health Sciences	3
Total		31

MINOR IN PUBLIC HEALTH

SUMMARY

Core	33
Total	33 Credits

CORE COURSES

33 Credits

Code	Course Title	Credits
PHEH 110	Introduction to Environmental Health	3
PHEH 250	Water Supply & Quality Control	3
PHEH 263	Conservancy and Drainage Systems	2
PHEP 100	Principles of Epidemiology	3
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHHC 190	Health Care Skills	2
PHHC 290	Community Health and Diagnosis	3
PHHC 340	Health Education & Promotion	2
PHNT 330	Public Health Nutrition	2
PHEP 426	Non-Communicable Disease Prevention and Control	2
PHEH 460	Management of Health Services	3

MINOR IN FITNESS AND WELLNESS MANAGEMENT

SUMMARY

Core	32
Total	32 Credits

CORE COURSES

32 Credits

Code	Course Title	Credits
PHHC 120	Philosophy of Health	2
PHHC 140	Introduction to Public Health	2
PHEP 100	Principles of Epidemiology	3
PHHC 160	Principles of Health and Wellness	2
PHHC 190	Health Care Skills	2
PHHC 240	Psychology and Sociology of Sports	3
PHHC 280	Nutrition, Fitness and Consumer Health	3
PHHC 350	Exercise Science	3
DTCS 360	Nutrition Education and Counselling	3
PHHC 330	Injury Prevention	3
PHHC 450	Health Appraisals and Wellness Testing	3
PHHC 480	Administration of Wellness Programmes	3
Total		32

Bachelor of Science in PUBLIC HEALTH (ENVIRONMENTAL HEALTH OPTION)

Four-Year Course Plan

Key: C - Credits; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHHC 140	Introduction to Public Health	2	0	2	PHEP 100	Principles of Epidemiology	3	0	3	
	BIOL 117	Human Anatomy	2	1	3	BIOL 118	Human Physiology	2	1	3	
	CHEM 103	Principles of General Chemistry	2	1	3	CHEM 105	Introductory Organic & Biochemistry	2	1	3	
	MATH 104	Applied Mathematics in Health & Allied Sciences	3	0	3	PHEH 110	Introduction to Environmental Health	2	0	2	
	OFTE 120	Keyboarding	0	1	0	PHHC 170	Health, Behaviour and Society	2	0	2	
	RELT 207	Christian Beliefs	3	0	3	PHHC 190	Health Care Skills Lab	1	1	2	
	ENG 105	Writing Skills	3	0	3	RELT 155	Adventist Heritage	2	0	2	
	PHHC 120	Philosophy of Health	2	0	2	ENGL 106	Speech Communication	1	0	1	
						SWFI 207	Family Issues	2	0	2	
Total			17	3	19	Total			17	3	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	BIOL 160	Biology of Food Animals	2	1	3	PHEH 250	Water Quality Control	2	1	3	
	CLSC 251	Principles of Medical Microbiology	2	1	3	BIOL 286	General Ecology	2	1	3	
	PHEH 226	Technical Drawing & Building Materials	2	1	3	PHEH 229	Public Health Principles in Building & Construction	2	1	3	
	PHEH 263	Conservancy & Drainage Systems	2	0	2	CLSC 253	Basic Clinical Parasitology	3	0	3	
	PHEH 224	Urbanization, Planning and Land Survey	2	0	2	INSY 236/ PHSC 290	Micro-Computer Applications / Computer Applications in Public Health	2	1	2	
	INSY 108	Information Technology for Health Professionals	2	0	2	PHNT 330	Public Health Nutrition	1	1	2	
	NUTR 234	Human Nutrition	3	0	3	EDUC 215	Philosophy of Christian Education	2	0	2	
Total			15	3	18	Total			14	5	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHNL 202	Biostatistics in Health Sciences	2	1	3	PHHC 495	Research Methods	3	0	3	
	PHHC 340	Health Education & Promotion	2	0	2	PHEH 340	Food Quality Control	2	1	3	
	PHEH 330	Meat Inspection & Hygiene	2	1	3	FREN 103	Beginning French II	2	0	2	
	PHEH 361	Solid Waste Management	2	0	2	PHEH 362	Liquid Waste Management	2	0	2	
	PHEH 350	Vector & Rodent Control	1	1	2	RELB 220	Life and Teachings of Jesus Christ	2	0	2	
	PHEH 310	Principles of Environmental Toxicology	2	0	2	CLSC 235	Introduction to Pharmacology & Pharmacognosy	2	0	2	
	CLSC 171	Basic Clinical Immunology	2	1	3	PHHC 290	Community Health & Diagnosis	2	1	3	
	RELT 255	Introduction to Christian Ethics	2	0	2	PHHC 296	Rural Attachment	0	1	1	
Total			15	4	19	Total			15	4	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHEH 400	Occupational Health and Safety	2	0	2	PHPC 225	Applied Physics in Public Health	2	0	2	
	PHEP 426	Non-Communicable Disease Prevention & Control	2	0	2	PHHC 460	Management of Health Services	3	0	3	
	PHEP 424	Communicable Disease Prevention & Control	3	0	3	PHHC 370/ GEOG 255	Geographic Information Systems in Public Health	2	0	2	
	PHEH 430	Port Health	2	0	2	PHHC 461	Project Planning & Evaluation	2	0	2	
	PHEH 440	Environmental Systems, Planning and Assessment	2	0	2	PHHC 470	Public Health Laws	2	0	2	
	PHEH 470	Pollution & Pollution Control	2	0	2	PHEH 487	Professional Practice	3	0	3	
	ECON 201	Introduction to Principles of Economics	2	0	2	PHHD 410	Disaster Preparedness, Management & Mitigation	2	0	2	
	FDNT 200	Food Biotechnology and Health	2	0	2		Vocational Skills	0	1	1	
	PHHC 497	Research Project	2	0	2						
Total			19	0	19	Total			16	1	17
TOTAL CREDITS FOR 4 YEARS					149 CREDITS						

Bachelor of Science in PUBLIC HEALTH (BIOMEDICAL DATA MANAGEMENT OPTION)

Four-Year Course Plan

Key: C - Credits; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHHC 140	Introduction to Public Health	2	0	2	PHEP 100	Principles of Epidemiology	3	0	3	
	BIOL 117	Human Anatomy	2	1	3	BIOL 118	Human Physiology	2	1	3	
	CHEM 103	Principles of General Chemistry	2	1	3	CHEM 105	Introductory Organic & Biochemistry	2	1	3	
	MATH 104	Applied Mathematics in Health & Allied Sciences	3	0	3	PHEH 110	Introduction to Environmental Health	2	0	2	
	OFTE 120	Keyboarding	0	0	0	PHHC 170	Health, Behaviour and Society	2	0	2	
	RELT 207	Christian Beliefs	3	0	3	INSY 108	Information Technology for Health Professionals	2	0	2	
	ENG 105	Writing Skills	3	0	3	RELT 155	Adventist Heritage	2	0	2	
	PHHC 120	Philosophy of Health	2	0	2	ENGL 106	Speech Communication	1	0	1	
Total			17	2	19	Total			16	2	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHDT 211	Biomedical Data Management I	2	1	3	PHDT 212	Biomedical Data Management II	2	1	3	
	CLSC 251	Principles of Medical Microbiology	2	1	3	PHDT 330	Analytical Applications for Statistical Packages	1	2	3	
	COSC 261	Operating Systems	2	1	3	CLSC 253	Basic Clinical Parasitology	3	0	3	
	INSY 228	Computer Ethics	3	0	3	PHSC 290	Computer Applications in Public Health	2	1	3	
	PHNL 202	Biostatistics in Health Sciences	2	1	3	PHDT 385	Advanced Biostatistics	2	1	3	
	INSY 211	Relational Database Management Systems	2	1	3	COSC 304	Formal Methods for Software Engineering	2	1	3	
	Total			13	5	18	Total			12	6
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHDT 213	Biomedical Data Management III	2	1	3	PHHC 495	Research Methods	3	0	3	
	PHHC 340	Health Education & Promotion	2	0	2	INSY 305	Management Information Systems	2	1	3	
	PHDT 340	Data Presentation	1	2	3	PHNT 330	Public Health Nutrition	1	1	2	
	COSC 343	Foundations of Human-Computer Interaction	2	1	3	MGMT103	Basic Management and Entrepreneurial Skills	2	0	2	
	FDNT 234	Nutrition	2	1	3	RELB 220	Life and Teachings of Jesus Christ	2	0	2	
	CLSC 171	Basic Clinical Immunology	2	1	3	CLSC 235	Introduction to Pharmacology & Pharmacognosy	2	0	2	
	RELT 255	Introduction to Christian Ethics	2	0	2	PHHC 290	Community Health & Diagnosis	2	1	3	
	Total			13	6	19	Total			16	3
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHD 420	Survey Research Methods	2	1	3	PHPC 225	Applied Physics in Public Health	2	0	2	
	PHEP 426	Non-Communicable Disease Prevention & Control	2	0	2	PHHC 460	Management of Health Services	3	0	3	
	PHEP 424	Communicable Disease Prevention & Control	3	0	3	PHHC 461	Project Planning & Evaluation	2	0	2	
	PHDT 440	Advanced Data Analysis	2	1	3	PHHC 370/ GEOG 255	Geographic Information Systems in Public Health	2	0	2	
	FREN 103	Beginning French II	2	0	2	PHHC 190	Health Care Skills Lab	1	1	2	
	FDNT 200	Food Biotechnology and Health	2	0	2	PHDT 420	Professional Practice	0	3	3	
	PHHC 497	Research Project	2	0	2	COSC 440	Artificial Intelligence	2	1	3	
EDUC 215	Philosophy of Christian Education	2	0	2		Vocational Skills	0	1	1		
Total			17	2	19	Total			12	6	18
TOTAL CREDITS FOR 4 YEARS					149 CREDITS						

Bachelor of Science in PUBLIC HEALTH (FITNESS AND WELLNESS MANAGEMENT OPTION)

Four-Year Course Plan

Key: C - Credits; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHHC 140	Introduction to Public Health	2	0	2	PHEP 100	Principles of Epidemiology	3	0	3	
	BIOL 117	Human Anatomy	2	1	3	BIOL 118	Human Physiology	2	1	3	
	CHEM 103	Principles of General Chemistry	2	1	3	CHEM 105	Introductory Organic & Biochemistry	2	1	3	
	MATH 104	Applied Mathematics in Health & Allied Sciences	3	0	3	PHEH 110	Introduction to Environmental Health	2	1	3	
	OFTE 120	Keyboarding	0	0	0	PHHC 170	Health, Behaviour and Society	2	0	2	
	RELT 207	Christian Beliefs	3	0	3	RELT 155	Adventist Heritage	2	0	2	
	ENG 105	Writing Skills	3	0	3	PHHC 160	Principles of Health and Wellness	2	0	2	
	PHHC 120	Philosophy of Health	2	0	2						
Total			17	2	19	Total			15	3	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHHC 240	Psychology and Sociology of Sports	2	1	3	PHHC 150	Nutrition and Health through the Life Cycle	2	1	3	
	CLSC 251	Principles of Medical Microbiology	2	1	3	PHHC 280	Nutrition Fitness and Consumer Health	2	1	3	
	PHNL 202	Biostatistics in Health Sciences	2	1	3	PHHC 290	Community Health & Diagnosis	2	1	3	
	CLSC 171	Basic Clinical Immunology	2	1	3	CLSC 253	Basic Clinical Parasitology	2	1	3	
	INSY 108	Information Technology for Health Professionals	2	0	2	INSY 236 / PHSC 290	Micro-Computer Applications / Computer Applications in Public Health	2	1	3	
	NUTR 234	Human Nutrition	3	0	3	CLSC 235	Introduction to Pharmacology & Pharmacognosy	2	0	2	
	PHHC 190	Health Care Skills Lab	1	1	2	RELB 220	Life and Teachings of Jesus Christ	2	0	2	
Total			14	5	19	Total			14	5	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHHC 315	Athletic Training	2	1	3	PHHC 495	Research Methods	3	0	3	
	PHHC 340	Health Education & Promotion	2	0	2	PHEH 340	Food Quality Control	2	1	3	
	OFAD 315	Office Administration, Ethics and Public Relations	2	1	3	PHHC 330	Injury Prevention	2	1	3	
	PHHC 350	Exercise Science	2	1	3	DTSC 334	Nutrition Care Process	2	1	3	
	FDNT 200	Food Biotechnology and Health	2	0	2	DTCS 360	Nutrition Education and Counselling	2	1	3	
	PHNT 330	Public Health Nutrition	1	1	2	PHHC 370/ GEOG 255	Geographic Information Systems in Public Health	2	0	2	
	HMTG 322	Facility and Property Management	2	1	3	EDUC 215	Philosophy of Christian Education	2	0	2	
	ENGL 106	Speech Communication	1	0	1						
Total			14	5	19	Total			15	4	19
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHEH 400	Occupational Health and Safety	2	0	2	PHHC 460	Management of Health Services	3	0	3	
	PHEP 426	Non-Communicable Disease Prevention & Control	2	0	2	PHHC 480	Administration of Wellness Programs	2	1	3	
	PHEP 424	Communicable Disease Prevention & Control	3	0	3	PHHC 461	Project Planning & Evaluation	2	0	2	
	PHHC 450	Health Appraisals and Wellness Testing	1	2	3	PHPC 225	Applied Physics in Public Health	2	0	2	
	FREN 103	Beginning French II	2	0	2	SWFI 207	Family Issues	2	0	2	
	PHHC 497	Research Project	2	0	2	PHHC 490	Professional Practice	0	3	3	
	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2		Vocational Skills	0	1	1	
	PHHD 410	Disaster Preparedness, Management & Mitigation	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
Total			16	2	18	Total			13	5	18
TOTAL CREDITS FOR 4 YEARS					149 CREDITS						

COURSE DESCRIPTIONS

PUBLIC HEALTH CORE COURSES

PHEP 100 Principles of Epidemiology 3 Credits

This course aims at enabling students to develop knowledge and skills in the concepts, principles and practice of epidemiology. Two lecture hours per week with two tutorial hours per week. *Prerequisite is PHHC 140 and MATH 104.*

PHHC 120 Philosophy of Health 2 Credits

This course is designed to enable students to develop an understanding of both the scientific and Adventist/religious philosophies and approaches towards illness, disease, health, causes of disease and their prevention. Besides, appreciate the principles and guidelines for health care service management in both perspectives –scientific and Adventist/ religious spheres. One lecture hour per week with two tutorial hours per week.

PHHC 140 Introduction to Public Health 2 Credits

This course is designed to enable the student apply public health principles in their practice. One lecture hour and two tutorial hours per week.

PHBH 170 Health, Behavior and Society 2 Credits

This course is designed to introduce students to a societal structures, social institutions, socialization, social groupings, social interactions and social conflicts and social self-regulations. It also provides knowledge into psychological concepts that affect human behavior like perceptions, consciousness, motivation, emotion, human development, personality, abnormal behavior, social psychology, psychotherapy, stress, memory, intelligence and learning. It relates the behavioral perspectives to health through cultural practice interactions. Two lecture hours and two tutorial hours per week.

PHHC 190 Health Care Skills 2 Credits

The purpose of this course is to help students acquire general Health Care skills in essentials of First Aid, principles of pharmacology and develop professional knowledge and skills on simple health care procedures. Two tutorial hours and one laboratory hour per week. *Prerequisites: BIOL 117 and BIOL 118.*

PHNL 202 Biostatistics in Health Sciences 3 Credits

This course enables the students to apply biostatistical principles and methods, into various public health activities that involve and often generate data through the use of various statistical packages of public health relevance. One lecture hour per week, two tutorial hours per week with one laboratory hour per week. *Prerequisites: PHHC 140, INSY 108; PHEP 100, INSY 236 and MATH 104.*

PHHC 290 Community Health and Diagnosis 3 Credits

The aim of this course is to enable students gain knowledge and skills that are essential to effectively execute community health activities and assess the health of communities. The course offers an overview on the principles of epidemiology, nutrition, environmental health aspects, and conservancy systems. The course also develops an understanding of the components of community diagnosis; introduces community entry techniques and sources of community health data that may be used in community diagnosis and reports. The roles of community health providers are also discussed. Two lecture hours and 2 laboratory hour/ field practical per week. *Prerequisites: PHNL*

202, PHEP 100, PHEH 250, PHEH 263, PHEH 229, PHNT 330 and PHHC 340. Students from other departments intending to register for the course must fulfil requirements of their respective departments and seek approval from their advisors prior to being accepted into the course.

PHHC 296 Rural Attachment 1 Credit

This course is designed to enable students acquire practical knowledge and skills that are essential to effectively execute community health activities and assess the health of communities. The students go for rural attachment during the long holiday after completing 3rd year studies. 8 hours per day for 5 days a week for totaling to 40 credit hours per week. 1 credit hour is equal to 80 clock hours. Therefore, 400 hours for a 10-week period. *Prerequisites: PHNL 202, PHEP 100, PHEH 250, PHEH 263, PHEH 229, PHNT 330; PHHC 290, PHEH 330 and PHEH 340.*

PHSC 290 Computer Applications in Public Health 3 Credits

This course is designed to enable students to acquire knowledge and skills in microcomputer applications, communication software, statistical and graphics software relevant to public health practice. Two lecture hours per week with one laboratory hour per week. *Prerequisite: INSY 108.*

PHHC 340 Health Education & Promotion 2 Credits

The purpose of the course is to enable students acquire knowledge and skills on health education and promotion issues, strategies and methods used to achieve optimal health in different populations. Two lecture hours per week with two tutorial hours per week, with 3 planned field visits during the semester. *Prerequisites: PHHC 120, PHHC 140, PHEP 100, PHEH 110, PHBH 170, PHEH 229, PHEH 250 and PHEH 263 and PHNT 330.*

PHNT 330 Public Health Nutrition 2 Credits

This course is designed to enable students understand the principles and fundamentals of nutrition and dietetics with public health implications. It includes, but not limited to, an overview of public health nutrition; assessment of nutritional status of individuals and populations; public health aspects of under nutrition and over nutrition. Two tutorial hours and one laboratory hour per week and 5 planned field trips. *Prerequisites: CHEM 103, CHEM 105, BIOL 117 and BIOL 118, PHHC 140, PHEP 100 and NUTR 234.*

PHHC 370 Geographical Information Systems in Public Health 2 Credits

The aim of the course is to enable students to apply the knowledge and skills of Geographical information systems in disease and/or other public health events Surveillance, mapping and control. Two lecture hours per week with two tutorial hours per week. *Prerequisites: PHEP 100, PHEH 424, PHEH 426, PHNL 202, BIOL 286.*

PHHD 410 Disaster Management and Response 2 Credits

The course will endeavor to cultivate appropriate values, a strong multidisciplinary knowledge base and skills essential for intervention in disasters and their prevention. One lecture hour per week with two tutorial hours per week with planned field trips during the semester. *Prerequisites: PHHC 140, PHEH 110, PHEH 250, PHEH 263, PHEH 229, PHEH 350, PHEH 361, PHNT 330 and PHHC 340.*

PHEP 424 Communicable Disease Prevention and Control 3 Credits

The course aims to enable students to develop knowledge and skills in epidemiologic assessment, prevention and control of the communicable diseases. The course applies the dynamics of epidemiology and prevention to control communicable diseases. *Two lecture hours per week and four tutorial hours per week and planned field visits. Prerequisites: PHHC 140, PHEP 100, PHHC 120, BIOL 117, BIOL 118, CLSC 251, CLSC 254, CLSC 171, CLSC 235, BIOL 286 and PHEH 350, PHEH 330 and PHEH 340 and PHHC 340.*

PHEP 426 Non-Communicable Disease Prevention and Control 2 Credits

The aim of the course is to enable students to apply the knowledge and skills of epidemiology of common non-communicable diseases in the design of prevention and control strategies to help manage them within the public health context. *Two lecture hours per week with two tutorial hours per week and planned field visits during the semester. Prerequisites: PHHC 140, PHEP 100, PHHC 120, BIOL 117, BIOL 118, CHEM 103, CHEM 105, NUTR 234, PHNT 330, PHEH 330 and PHEH 340, PHHC 340, CLSC 171 and CLSC 235.*

PHHC 460 Management of Health Services 3 Credits

To prepare senior students for managerial positions within the public health care system. *Two lecture hours per week with two tutorial hours per week and 2 planned field visits during the semester. Prerequisites: PHEH 110, PHHC 140, PHBH 170, ECON 201, PHHC 290, and PHHC 298.*

PHHC 461 Project Planning and Evaluation 2 Credits

This course is to equip the public health students during their senior year with skills and knowledge on the process involved in project planning, management and evaluation within the public health field. *One lecture hours per week, two tutorial hours per week, with planned field visit during the semester. Prerequisites: PHEH 110, PHHC 140, PHHC 495, PHNT 330, PHNL 202, PHHC 340, PHEP 424 and PHEP 426.*

PHHC 470 Public Health Laws 2 Credits

The purpose of the course is to expose students to the public health legislation used in public health practice. *Two lecture hours per week with two tutorial hours per week with planned field visits to general court and public health court. Prerequisites: PHEH 110, PHHC 140, PHEH 250, PHEH 229, PHEH 263, PHHC 290, PHHC 296, PHEH 330, PHEH 340, PHEH 361, PHEH 362, PHEH 310, PHEH 400, PHEH 430, PHEH 440, PHEH 470, PHEP 424 and PHEP 426.*

PHHC 495 Research Methods 3 Credits

This course is designed to enable students apply principles of research methodology to solving public health problems. *Two lecture hours per week, two tutorial hours per week. Prerequisites: PHNL 202, INSY 236 Or PHSC 290, ENGL 106, ENGL 105, OFTE 120, and PHHC 340.*

PHHC 495 Research Project 2 Credits

The course is designed to enable students develop skills in conducting research by implementing the proposal developed during Research Methods. *Two lecture hours per week, six tutorial hours per week with 6 hours of laboratory work per week for a total 30 weeks (two semesters). Prerequisites: PHHC 495.*

ENVIRONMENTAL HEALTH COURSES

PHEH 110 Introduction to Environmental Health 3 Credits

The purpose of the course is to enable the learner apply the principles of environmental health in public health practice by appreciating the role of climate, climate change and environmental conditions and how they influence the health of populations. *Two lecture hours per week, four tutorial hours per week. Prerequisites: PHHC 140.*

PHEH 160 Biology of Food Animals 3 Credits

The purpose of the course is to provide students with a basic knowledge of the anatomy and physiology of food animals necessary for their meat inspection. *One lecture hour per week, two tutorial hours per week, and one laboratory hour per week. Prerequisites: BIOL 117 and BIOL 118. PHEH 110, PHHC 140.*

PHEH 224 Urbanization, Planning and Land Survey 2 Credits

This course is designed for students to acquire basic concepts and principles of urbanization, planning and land survey and apply them in planning and design of public health services. *One lecture hour per week with two tutorial hours per week with planned field trips per semester. MATH 104, PHEH 110, PHHC 140, and PHHC 120.*

PHEH 226 Technical Drawing and Design 2 Credits

The course is aimed at enabling the learner to acquire skills and knowledge in the principles of technical drawing and design relevant to public health practice. *Two lecture hours per week and one laboratory hour per week. Prerequisites: MATH, 104, PHEH 110 and PHHC 140.*

PHEH 229 Public Health Principles in Building and Construction 3 Credits

The purpose of the course is to enable students to acquire knowledge and skills in building construction and technology so as to ensure health and safety of the occupants. *Two lecture hours per week, two tutorial hours per week and one laboratory hour per week. Prerequisites: PHEH 226, MATH 104, PHEH 110, PHHC 140, PHEH 226, PHEH 263 and PHHC 120.*

PHEH 250 Water Quality Control 3 Credits

The course is designed to enable students to apply principles of water quality and control in improving and promoting Health. *One lecture hour per week, two tutorial hours per week with one laboratory hour per week with planned field visits during the semester. Prerequisites: CHEM 103; CHEM 105; PHEH 110, PHHC 140, CLSC 254 and CLSC 251.*

PHEH 263 Conservancy and Drainage Systems 2 Credits

This course is designed to enable students understand and apply the principles of conservancy and drainage systems in the prevention and control of communicable diseases. *Two lecture hours per week with two tutorial hours per week, and 10 planned field visits during the semester. Prerequisites: PHHC 140, CHEM 103, CHEM 105, BIOL 117, BIOL 118 and PHEH 110.*

PHEH 295 Biotechnology and Health 2 Credits

This course is designed to enable students understand the principles of biotechnology and its applications in medical and public health practice. *One lecture hours per week and two*

tutorial hours per week. *Pre-requisite:* CHEM 103, CHEM 105, BIOL 117, BIOL 118, BIOL 286, PHEH 340, PHEH 330, PHNT 330, NUTR 234, PHHC 140, PHEH 110, CLSC 251, CLSC 254, PHEH 310, PHEP 100.

PHEH 310 Principles of Environmental Toxicology 2 Credits

This course is designed to provide the students with knowledge on principles and applications of environmental toxicology and the toxic responses of organ systems in humans. *One lecture hour per week, two tutorial hours per week with planned field trips and demonstrations during the semester. Prerequisites:* CHEM 103, CHEM 105, PHEH 110, PHHC 140, PHEH 250, PHEH 224, PHEH 263 and BIOL 286.

PHEH 330 Meat Inspection and Hygiene 3 Credits

This course is designed to enable students acquire fundamental knowledge and skills essential to ensuring meat hygiene, safety and quality control. *Two lecture hours per week, one laboratory hour per week with planned field visits to meat processing plants. Prerequisites:* PHEH 160; PHEH 110, PHHC 140, CLSC 251, CLSC 254, PHEH 226 and PHEH 229, PHEH 250, and PHEH 263.

PHEH 340 Food Quality Control 3 Credits

The purpose of the course is to enable the students to develop competencies and skills in food hygiene for ensuring safe supply of food for human consumption. The students will gain practical experience through involvement in the inspection process of various foods based on the principles of food science and technology in public health. *One lecture hour per week, two tutorial hours per week, one laboratory hour per week with planned field trips. Prerequisites:* CHEM 103, CHEM 105, PHHC 140, PHEH 110, NUTR 234, CLSC 251 and CLSC 254, PNHT 330.

PHEH 350 Vector and Rodent Control 2 Credits

This course is designed to enable students to understand and apply the principles of medical entomology, vector and rodent management in the prevention and control of communicable diseases. *Two lecture hours per week and one hour of laboratory/ fieldwork per week. Pre-requisite:* BIOL 286, CLSC 251, CLSC 254, PHEH 110, PHEH 140, PHEP 100.

PHEH 361 Solid Waste and Management 2 Credits

The course is designed to enable students to apply the principles and concepts of solid waste management in the prevention and control of diseases. *Two lecture hours per week with two tutorial hours per week, and ten (10) planned field visits during the semester. Prerequisites:* PHEH 110, PHHC 140, CLSC 251, CHEM 103, CHEM 105, CLSC 254, PHEH 250, PHEH 263, PHEH 224, PHEH 226 and PHEH 229.

PHEH 362 Liquid Waste Management 2 Credits

The course is designed to enable students to apply the principles and concepts of liquid waste management in the prevention and control of diseases. *Two lecture hours per week with two tutorial hours per week, and six (6) planned field visits during the semester. Prerequisites:* PHEH 110, PHHC 140, CLSC 251, CHEM 103, CHEM 105, CLSC 254, and PHEH 226, PHEH 224, PHEH 229, PHEH 263, PHEH 250.

PHEH 400 Occupational Health and Safety 2 Credits

This course is designed to enable students to understand and apply the principles of occupational health and safety in the promotion and maintenance of the highest degree of physical,

mental, and social well-being of workers in healthy and safe work environments. *Two lecture hours per week, two tutorial hours per week with planned field trips during the semester. Prerequisites:* PHEH 110, PHHC 140, PHEH 229, PHEH 224, PHEH 263, PHEH 310, PHEH 224, PHEH 226, BIOL 286, CHEM 103, and CHEM 105.

PHEH 430 Port Health 2 Credits

This course is designed to enable public health students gain knowledge and skills necessary for administration of port health services. *One lecture hour per week and two tutorial hours per week, with planned field visits to ports of entry. Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHEH 340, PHEH 350, PHEH 250, PHEH 263, PHEH 362, PHEH 361 and PHEH 229.

PHEH 440 Environmental Systems, Planning and Impact Assessment 2 Credits

The purpose of the course is to enable students to acquire knowledge of the major environmental challenges facing planners, and the tools used to address these challenges. *Two lecture hours per week with two tutorial hours per week, and eight (8) planned field visits during the semester. Prerequisites:* PHEH 110, PHEP 100, PHHC 140, PHEH 310, PHEH 224, PHEH 250, PHEH 263, PHEH 361, PHEH 362 and BIOL 286.

PHEH 470 Pollution and Pollution Control 2 Credits

The course is designed to provide students with knowledge and skills essential to recognizing the potential of pollution of the natural resources (land, air and water) on the health of populations with the aim of monitoring, preventing and controlling pollution. *Two lecture hours per week with two tutorial hours per week, and five (5) planned field visits during the semester. Prerequisites:* PHEH 110; PHHC 140, CHEM 103, CHEM 105, PHEH 310, PHEH 250, PHEH 224, PHEH 362, PHEH 361, PHEH 263 and BIOL 286.

PHEH 487 Professional Practice 3 Credits

This course is aimed at providing opportunities for students to acquire practical skills through working in a Public Health setting at the county level of public health services. The students are enabled to develop professional responsibility preparing them for Public Health practice. *8 hours per day for 5 days a week totaling to 40 credit hours per week. 1 credit hour is equal to 80 clock hours. Therefore, 400 hours for 10 weeks. Prerequisites:* Must have completed all class work based courses and passed before proceeding for field work activities.

PHPC 225 Applied Physics in Public Health 2 Credits

This course is designed to enable students acquire knowledge and skills in physics applicable in public health and environmental health practice. *Two lecture hours per week and two tutorial hours per week. Pre-requisite:* PHEH 110, PHEH 140, PHEH 226, PHEH 224, PHEH 229, PHEH 263, PHEH 250, PHEH 361 and PHEH 362.

BIOMEDICAL DATA MANAGEMENT COURSES

PHDT 211 Biomedical Data Management I 3 Credits

The course is designed to equip students with knowledge and skills in the use of relational databases and spreadsheets to create real-world database applications that permit data to be queried, produce reports and display information in various forms. *Prerequisites:* MATH 104, PHHC 140, INSY 108; PHEP 100 and INSY 236.

PHDT 212 Biomedical Data Management II 3 Credits

The purpose of the course is to enable the students to acquire knowledge and skills in the design of questionnaires and data-abstraction forms, and to effectively manage different types of data. *Prerequisites:* PHDT 211, PHNL 202 and PHHC 495.

PHDT 213 Biomedical Data Management III 2 Credits

The purpose of the course is to equip students with knowledge and skills on the importance of health care data, quality management and performance improvement relating to health care practice. *Prerequisites:* PHDT 212, PHHC 460.

PHDT 330 Analytical Applications of Statistical Packages 3 Credits

This course aims at enabling students acquire knowledge and skills in the commonly used advanced statistical methods for data analysis. *Prerequisites:* PHNL 202, PHDT 211, PHDT 212, PHDT 213.

PHDT 340 Data Presentation 2 Credits

The aim of the course is to equip students with knowledge and skills that are essential to display data generated from health care and other research activities using the most appropriate techniques. *Prerequisites:* PHNL 202, PHDT 211, PHDT 212, PHDT 213, PHDT 330

PHDT 385 Advanced Biostatistics 3 Credit

The aim of the course is to equip students with knowledge and skills to critically interpret results from common biostatistical analyses and to analyze data using appropriate computer software. This course builds on the knowledge and skills obtained from the previous courses. *Prerequisites:* PHDT 211, PHDT 212, PHDT 213, PHDT 330, PHDT 340.

PHDT 420 Survey Research Methods 3 Credits

This course is designed to enable students acquire advanced knowledge and skills in survey research and data analysis. *Prerequisites:* PHDT 211, PHDT 212, PHDT 213, PHDT 330, PHDT 340, PHDT 385.

PHDT 440 Advanced Data Analysis 3 Credits

The purpose of the course is to enable students improve their knowledge and skills in using different data analysis methods. *Prerequisites:* PHDT 211, PHDT 212, PHDT 213, PHDT 330, PHDT 340.

PHDT 420 Professional Practice 3 Credits

This course is aimed at providing opportunities for students to acquire practical skills through working in a Public Health setting dealing with health data management. The students are enabled to develop professional responsibility preparing them for Health informatics practice. 8 hours per day for 5 days a week totaling to 40 credit hours per week. 1 credit hour is equal to 80 clock hours. Therefore, 400 hours for 10 weeks. *Prerequisites:* Must have completed all class work based courses and passed before proceeding for field work activities.

FITNESS AND WELLNESS COURSES

PHHC 150 Nutrition and Health through the Life Cycle 3 Credits

The aim of this course is to enable students acquire knowledge and skills in the principles of nutrition. Management of therapeutic diets and nutrition assessment in health and disease is included. *Prerequisites:* PHHC 140, PHHC 120, NUTRI 234, PHEP 100.

PHHC 160 Principles of Health and Wellness 2 Credits

The main objective of this course is to introduce students to the essential wellness practices as they relate to current concepts of preventive medicine; learn how to investigate the latest scientific findings relevant to the major diseases and causes of premature deaths. *Prerequisites:* PHHC 140, PHHC 120, NUTRI 234, PHEP 100.

PHHC 240 Psychology and Sociology of Sports 3 Credits

The aim of this course is to enable the students acquire knowledge and skills in the sociological and psychological concepts for understanding sports activities. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, NUTRI 234.

PHHC 280 Nutrition, Fitness and Consumer Health 3 Credits

The purpose of this course is to help students identify and address contemporary lifestyles, associated behaviors and major health concerns. Techniques and strategies used to make positive lifestyle changes are discussed in relation to consumer responsibility. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, NUTRI 234.

PHHC 315 Athletic Training 3 Credits

This course aims at enabling students acquire knowledge and skills that are necessary for the recognition, management and prevention of athletic injuries associated with sports. The organization and management of athletic training programmes and fitness centers are also included. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, NUTRI 234, PHEP 426.

PHHC 330 Injury Prevention 3 Credits

This course aims at equipping students with knowledge and skills on injury prevention, injury epidemiology, implementation of intervention programmes and evaluation of such programmes. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, PHEP 426.

PHHC 350 Exercise Science 3 Credits

The purpose of the course is to equip students with knowledge and skills in the science of exercise with special emphasis on physical activity and health. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, NUTRI 234, PHEP 426; PHHC 315, PHHC 240, PHHC 230, PHHC 280, PHHC 340.

PHHC 450 Health Appraisals and Wellness Testing 3 Credits

This course is designed to provide students knowledge and skills that are necessary for meeting the needs of the society's demands for quality health programmes based on the holistic

approach to wellness. It includes activities used to determine physical fitness, stress management and emotional awareness. Students will be able to advise their clients to pursue activities which promote wellness. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, NUTRI 234, PHEP 426; PHHC, 315, PHHC 240, PHHC 230, PHHC 280, PHHC 340, PHHC415.

PHHC 480 Administration of Wellness Programmes **3 Credits**

The purpose of the course is to provide students with knowledge and skills that are essential to manage, supervise, evaluate and report on wellness programmes. *Prerequisites:* PHHC 140, PHEH 110, PHEP 100, PHHC 150, PHHC 160, NUTRI 234, PHEP 426; PHHC, 315, PHHC 240, PHHC 230, PHHC 280.

PHHC 490 Professional Practice **3 Credits**

This course is aimed at providing opportunities for students to acquire practical skills through working in a Public Health setting dealing with fitness and wellness management. The students are enabled to develop professional responsibility preparing them for fitness and wellness management practices. 8 hours per day for 5 days a week totaling to 40 credit hours per week. 1 credit hour is equal to 80 clock hours. Therefore, 400 hours for 10 weeks. *Prerequisites:* Must have completed all class work based courses and passed before proceeding for field work activities.

OTHER COURSES

EDHE 180 Health Education and Life Skills **2 Credits**

This course is for education majors. The course introduces students to the principles of health and healthful living: NEWSTART; health education in schools; human anatomy; human organ system, their interdependence, significant disorders and care; communicable diseases and their control; emergency treatment; principles of physical and mental health; principles of physical and mental health; health and nutrition; recreation and sport; family health, family planning and population control; living with oneself; living with others; effective decision making; living values. *Prerequisite:* EDPC 106.

PHAS 107 Physical Fitness Activities **1 Credit**

This is a General Education Requirement Course for all university students. The course exposes students to the concepts, games and activities that enhance physical fitness through a series of organized physical activities. It includes the following recreation and physical activities: soccer, softball, basketball, volleyball, netball, lawn tennis, hockey and handball activities, rotation and circles, body stretching and balance, shoulder blades, trunk rolls, body plows, elbow thrusts, knee bends and circles, ordinary jumping jacks, knee-tap rhythms, stand-up balances, frog-jump moves, Masai jumps, complex jumping jacks, 4-count burps, step kick and squat, squat-thrust and stretch, push-ups, crab-stretch movement, alternate knee to chest, double knee to chest, sit and reach, crab stretch, platter kicks, v-balance, knee flexion, sit-ups, leg-over, cycle kicks, arm circles, knee rotations and deep breath. One laboratory hour per week.

HELD 105 Health Principles **1 Credit**

This is a General Education Requirement Course for all university students. The course provides an introduction to important concepts of health which is composed of physical, mental, social and spiritual -philosophical dimensions. University students are guided to recognize responsibilities and opportunities for improving and protecting their own health as well as that of their community. Students are led to identify unhealthy behaviour and measures to correct them. This course is offered during the freshman year and must be taken at that time. One laboratory hour per week



SCHOOL OF SCIENCE & TECHNOLOGY

DEPARTMENTS:
TECHNOLOGY | BIOLOGICAL SCIENCES AND AGRICULTURE |
MATHEMATICS, CHEMISTRY & PHYSICS



School of Science and Technology

DEAN - Francis, R., PhD.

Email: dean_sst@ueab.ac.ke

PHILOSOPHY

The School of Science and Technology operates on the University of Eastern Africa, Baraton's world view, which holds that God is the Creator and Sustainer of the Universe and is the source of knowledge. The entrance of sin caused man's alienation from God; therefore, the educative process in the school of Science and Technology seeks to restore the relationship of people with God by exposing the student to creative and imaginative appreciation of reality in the universe. This ideal is reached through the virtues espoused in the university which are honesty, integrity, dignity, morality, trustworthiness and uprightness. This approach leads learners into self-actualization and to discover and understand the truth through positive critical thinking.

MISSION

The mission of the School of Science and Technology is to provide and advance wholistic Christian education which develops men and women to be earnest seekers of truth by equipping them with passion for innovation, using their knowledge to think critically in order to overcome challenges, initiate change and make positive difference to human lives.

VISION

The vision of the School of Science and Technology is to be the leading centre of excellence in science and technology and research producing world class scientists and technologists by providing innovative solutions to better quality of life with moral virtues towards global competitiveness.

PROGRAMS OFFERED BY THE SCHOOL OF SCIENCE AND TECHNOLOGY

Bachelor of Science

1. Bachelor of Science in Agribusiness
2. Bachelor of Science in Agriculture Technology
3. Bachelor of Science in Agriculture
4. Bachelor of Science in Agriculture (Animal Science Option)
5. Bachelor of Science in Agriculture (Crop and Soil Science Option)
6. Bachelor of Science in Agriculture (Horticultural Science Option)
7. Bachelor of Science in Biology
8. Bachelor of Science in Biomedical Science
9. Bachelor of Science in Biotechnology
10. Bachelor of Science in Environmental Conservation
11. Bachelor of Science in Chemistry
 - a. Analytical Chemistry Option
 - b. Analytical Chemistry with Management Option
 - c. Biochemistry Option
 - d. General Chemistry Option
 - e. Industrial Chemistry Option
 - f. Industrial Chemistry with Management Option

12. Bachelor of Science in Fashion and Textile Design
13. Bachelor of Science in Foods, Nutrition and Dietetics
14. Bachelor of Science in Hotel and Hospitality Management
15. Bachelor of Science in Mathematics
16. Bachelor of Science in Aviation Management
17. Bachelor of Science in Technology (Automotive)
18. Bachelor of Science in Technology (Electronics)
 - a. Communication Option
 - b. Industrial Option

MINORS

1. Minor in Agriculture
2. Minor in Applied Statistics
3. Minor in Biology
4. Minor in Chemistry
 - a. Minor in Analytical Chemistry
 - b. Minor in Biochemistry
 - c. Minor in General Chemistry
 - d. Minor in Industrial Chemistry
5. Minor in Electronics Technology
6. Minor in Fashion and Textile Design
7. Minor in Foods, Nutrition and Dietetics
8. Minor in Hotel and Hospitality Management
9. Minor in Mathematics
10. Minor in Physics

DEPARTMENT OF TECHNOLOGY

FACULTY

Ayiemba, J. - Chairperson
Leleiy, W.
Misoï, A.
Semakula, M, PhD
Soi, E.
Walela, P.

TEACHING ASSISTANT

Gwako, R
Korir, E
Wachira, J.

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PHILOSOPHY

The Department of Technology operates on the Institutional worldview, rooted in the belief that God is the ultimate Creator and Sustainer of the universe and life itself, the wellspring of genuine knowledge. Recognizing humanity's estrangement from God due to sin, our educational programmes aim to restore this relationship by advancing technical knowledge, skills, and attitudes. In light of society's growing reliance on technology, there is a pressing need for conscientious individuals who can address contemporary challenges effectively and innovatively. Therefore, the primary aim of our programmes is to equip learners with practical skills and theoretical understanding in applying science and technology in the service to both God and humanity, and acknowledging Jesus Christ, as the Master craftsman.

MISSION

The Department of Technology advances and provides a wholistic quality Christian education, nurturing individuals who are earnest seekers of truth. Through the provision and enhancement of relevant knowledge, skills, and attitudes, our programmes are designed to empower men and women to employ their hands, hearts, and minds in the service of God and humanity.

VISION

The Department of Technology envisions being a premier center of excellence, offering market-driven programmes in Automotive, Aviation Management, Computing, and Electrical/Electronics Engineering Technologies.

DEGREES OFFERED BY THE DEPARTMENT

1. Bachelor of Science in Aviation Management
2. Bachelor of Science in Technology (Automotive)
3. Bachelor of Science in Technology (Electronics)
 - a. Communication Option
 - b. Industrial Option
4. Bachelor of Science in Technology Education
5. Minor in
 - a. Electronics Technology
 - b. Robotics Technology
6. Diploma Upgrade
 - a. Automotive Technology
 - b. Aviation Management
 - c. Electronics Technology
 - d. Technology Education

EXPECTED LEARNING OUTCOMES

Programs in the Department of Technology are designed to:

1. Provide the education and training necessary to become entrepreneurs in various fields of Industry and Technology.
2. Equip learners with the requisite technical and soft skills: self-reliance; reflection; adaptability; creativity; flexibility; interpersonal communication; teamwork and leadership qualities needed for employment in industry and institutions.
3. Prepare learners as instructors in technology-oriented courses in Secondary, Technical and Vocational Institutes in the fields of Automotive Technology, Aviation Management, Computing, Electronics, Welding and Wood Technology.
4. Prepare learners for the rigors of postgraduate studies.
5. Inculcate the basic principles of practical Christianity such as honesty, dignity of work, and respect of authority.
6. Develop confidence and academic skills in learners to become active, autonomous and critical thinkers.
7. Carry out research in a conducive academic environment for a wholesome educational experience to improve, promote, assess, innovate and advance their respective areas of specialization.
8. Foster collaboration with other institutions and industries in conjunction with the relevant University office.

CAREER OPPORTUNITIES

1. Automotive Technology graduates have diverse career opportunities in both traditional and emerging sectors. They can work as Automotive Technicians or Mechanics in repair/service shops and dealerships, or as Automotive Engineers, designing and developing vehicles and systems. Serve as Automotive Consultants, Diagnostic Specialists, Service Advisors or Assessors, Inventory Controllers, Technical Advisers, Parts Managers, Fleet Management Specialists. Become Automotive Sales Representatives, Autobody Assemblers, Marketing Managers, Technical Trainers, or Automotive Journalists, Instructors or Entrepreneurs. Graduates can also find opportunities in emerging fields like Electric Vehicle Technology, Autonomous Vehicles, or Renewable Energy Vehicles, contributing to the automotive industry's innovation.
2. Aviation Management graduates qualify to be employed as pilots, technical and operations managers in not only the aviation industry but also in all other sectors of the Kenyan economy that requires their expertise and beyond. They can work as Airport Operations Managers, Airline Managers, Aviation Safety Inspectors, and Air Traffic Controllers. They can also explore roles in Aviation Security, Airport Planning and Development, or Aviation Consulting, providing expertise to airlines, airports, and other aviation-related organizations. Actively engaged in community, youth mentoring and development programmes, significantly promoting Kenya as a preferred aviation hub and destination.
3. Electrical/Electronics Engineering Technologists work as members of "engineering teams" in applied design, product development, installation, maintenance, manufacturing production, or operations. They find employment in technical services including field engineering, customer support, marketing and sales, line managers in semiconductor industries, in the fields of radio, robotics, television,

telecommunication, entrepreneurs of electronics and electrical industry and as instructors in technological colleges and technical institutes.

4. Technology Educationists can pursue diverse career opportunities, including roles as technical education teachers in secondary schools or vocational training institutions, curriculum developers, technical trainers, quality assurance officers, technology education consultants, technical writers, entrepreneurs in technical training or consultancy, researchers in technology education, or project managers for curriculum development or training initiatives

ENTRANCE REQUIREMENTS

1. Direct Entry Requirements

In addition to meeting University minimum entrance requirements, learners entering the Department of Technology as Automotive and Electronics majors, must have at least a C (plain) in Chemistry, Mathematics and Physics. Aviation and Technical Education majors, see relevant sections on requirements.

2. Interdepartmental Transfer

All learners wishing to transfer to Technology from other departments as Automotive and Electronics Majors must attain a minimum grade of C+ (plus) in CHEM 151, PHYS 155 and TCEM 111. For Aviation Management and Technology Education majors, ensure that you meet the stipulated entry requirements and comply with the specifications of the respective regulatory bodies. In addition, the learners must officially transfer before they are allowed to take upper division Technology courses (levels of 300 and above).

3. Aviation Management Entry Requirements

In addition to the general admission requirements into the University of Eastern Africa, Baraton; applicants for this programme, must have:

- a) A minimum Grade of C+ in English, Mathematics, and Physics/Physical Science at KCSE or the equivalent.
- b) A minimum Grade of C in any two of the following subjects: Geography, Chemistry, Aviation Technology and Kiswahili/French/German at KCSE or the equivalent.
- c) A Medical Class 1 Health Certificate from an approved Aviation Medical Examiner.
- d) Undergone and passed an aptitude evaluation test on the ground and in the air.
- e) A valid certificate of good conduct obtained from the Kenya Police Service.
- f) A Certificate of Proficiency in the English Language.
- g) A valid entry Visa for foreign applicants.

3.1. Mature Entry (Aviation Management)

Mature entry may be allowed for applicants who shall have attained the age of thirty five (35) years or above at the date of admission. In addition, the applicants must show evidence of at least three (3) years aviation, or related experience and must have obtained a mean grade of C in KCSE. Preference under this category will be given to holders of a recognized:

- a) Private Pilot License (PPL), Commercial Pilot License (CPL) from the Kenya Civil Aviation Authority or the equivalent.
- b) A diploma in Aviation Technology or Management or the equivalent.

4. Technology Education Entry Requirements

In addition to meeting University minimum entrance requirements, learners entering the Department of Technology to pursue this programme, must have at least a C+ (plus) in Chemistry, Mathematics and Physics. Meet any other requirements as prescribed by Regulatory bodies.

GRADUATION REQUIREMENTS

1. A minimum of 140 - 150 Credits of required courses, and upon completion of the subjects listed for specific programme.
2. A minimum overall cumulative GPA of 2.00 is required to graduate.
3. A GPA of 2.25 is required for the Concentration, Core and Cognate; 2.00 is required for Elective courses. A minimum grade of C for each course is required.
4. Apply for graduation.
5. Meet financial obligations

GENERAL REQUIREMENTS COURSE LISTING FOR TECHNOLOGY LEARNERS

Aviation Management and Technology Education majors, see relevant sections of this Bulletin that provides comprehensive course listings. Consult with the respective curriculum leader(s) and/or assigned major advisors for guidance in course selection each semester, without fail

Automotive and Electronics majors are exempt from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
OFTE 120	Keyboarding	0
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2

GENERAL EDUCATION REQUIREMENT COURSES

27 Credits

Code	Course Title	Credits
BIOL 105	Human Biology	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114 FREN 103	Language Skills In Kiswahili / Beginning French II	2
MUGR 100 LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
PEAC 107	Physical and Recreational Activities	1
HLED 110	Health Principles	2
RELB 220	Life and Teachings of Jesus Christ	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2

Two (2) courses from the following classes:		
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101	Introduction to Psychology	
SOCI 121 SWFI 207	Introduction to Sociology/ Family Issues	
Any one (1) of the following vocational courses:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto Care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 107	Quilting	1
FTXD 108	Weaving	1
FTXD 121	Creative Fashion Crafts Laboratory	1
NRSG 100	First Aid	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
Total		27

BACHELOR OF SCIENCE IN AVIATION MANAGEMENT (BSc AvM)

SUMMARY

General Education Requirements	15
Specialization	
a. Flying Option Courses	113
b. Flight Operations Courses	107
Core Courses	7
Cognate Courses	12
Totals	134 -147 Credits

GENERAL EDUCATION REQUIREMENT COURSES 15 Credits

Code	Course Title	Credits
ENGL 131	Communication and Writing Skills	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
RELB 220	Life and Teachings of Jesus Christ	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
	Vocational Course	1
Total		15

SPECIALIZATION COURSES 113 Credits

Code	Course Title	Credits
AVFL 100	Principles of Flight: Aeroplanes I	3
AVFL 101	Aircraft General Knowledge (Airframes & Systems)	4
AVFL 103	Aircraft Performance and Planning I	3
AVFL 110	Human Performance and Limitation I	2
AVFL 111	Air Law I	3
AVFL 120	Meteorology I	2

AVFL 121	Radio Telephony/Communication Skills	2
AVFL 122	Operational Procedures I	2
AVFL 124	General Navigation I	4
AVFL 155	PPL Flying hours I (Pre-Flight & Pre-Solo)	2
AVFL 156	PPL Flying hours II (First Solo & Consolidation)	2
AVFL 200	Principles of Flight: Aeroplanes II	4
AVFL 201	Aircraft General Knowledge (Power Plants)	4
AVFL 202	Aircraft General knowledge (Electrics & Electronics)	3
AVFL 203	Aircraft General knowledge (Instruments)	3
AVFL 210	Human Performance and Limitation II	3
AVFL 211	Air Law II	5
AVFL 213	Aircraft Performance and Planning II	7
AVFL 220	Meteorology II	3
AVFL 222	Operational Procedures II	2
AVFL 224	General Navigation II	6
AVFL 230	Morse Code	1
AVFL 240	CPL Flying hours I (Basic Instrument Flying)	2
AVFL 241	CPL Flying hours II (Night Flying)	2
AVFL 242	CPL Flying hours III (Commercial Visual Navigation)	1
AVFL 340	ATPL Flying hours I (IR)	2
AVFL 341	ATPL Flying hours II (Multi-Engine Rating)	2
AVFL 342	ATPL Flying hours III (Commercial Operations)	1
AVFL 355	ATPL (Frozen)	1
AVFN 300	Aviation Finance	2
AVLG 100	International Language (French, English, Chinese)	4
AVMG 100	Introduction to Aviation Business and Ethics	2
AVMG 300	Organizational Theory and Behaviour	2
AVMG 301	Airport Management and Planning	2
AVMG 302	Air Traffic Management	2
AVMG 304	Aviation Risk and insurance	2
AVMG 305	Crew Resource Management/HRM	2
AVMG 307	Aviation Security and Safety (Airport Pass)	3
AVMG 310	Airline Management and Economics	3
AVMG 320	Quality Management Systems	2
AVMG 330	Civil Aviation Management	2
AVMG 350	Airfreight Operations (Dangerous goods)	3
Total		113

CORE COURSES 6 Credits

Code	Course Title	Credits
TCED 240	Research Methodology	2
TCED 455	Research Project	2
TCED 430	Industrial Attachment	2
Total		6

COGNATE COURSES 13 Credits

Code	Course Title	Credits
ACCT 110	Book Keeping and Accounting	2
ECON 201	Introduction to Principles of Economics	3
INSY 119	Business Information Processing and Applications	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
MGMT 220	Business Statistics I	3
Total		13

BACHELOR OF SCIENCE IN AVIATION MANAGEMENT FOR UPGRADERS

Applicants who hold diploma qualifications in Aviation Technology, Aviation Management or related diploma recognized by relevant ministries of education and wish to upgrade to degree level, can apply. Specific listing of courses to undertake will be advised by assigned course advisor(s). Applicants must meet the following requirements:

1. A form four certificate or its equivalent.
2. A diploma in Aviation Technology or Aviation Management or related diploma from a recognized institution approved by the relevant ministries of education.
3. A PPL, CPL valid license from a recognized Civil Aviation Authority or equivalent body.
4. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma programme in which the qualification was obtained.

Procedure for Upgrading

An upgrading student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer is expected to:

1. Petition by filling the credit transfer application form, available in the Registrar's office.
2. The application must be accompanied by a CV, transcript showing all the courses, grades from previous training, and course syllabi/outlines. Seek advice on courses slated for exemption or credit transfer.
3. A maximum of 49% of the total credits may be transferred and exempted.
4. Additional credits based on additional training after the basic diploma may be applied on individual basis.

BACHELOR OF SCIENCE IN TECHNOLOGY (BST) AUTOMOTIVE

SUMMARY

General Education Requirements	28
Specialization	96
Cognates	20
Total	143 Credits

Automotive majors are exempted from the following General Education Requirements and are not expected to take AUTO 100 as an alternative vocational course to AUTO 110. A minimum grade of C (plain) must be attained at the prerequisite level in all Technology Courses before one can register for the next level.

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
OFTE 120	Keyboarding	0
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2

GENERAL EDUCATION REQUIREMENT COURSES

28 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		28

SPECIALIZATION COURSES

96 Credits

A minimum grade of C (plain) be attained at the prerequisite level in all Technology courses before one can register for the next level.

Code	Course Title	Credits
AUBO 131	Fundamentals of Auto Body Repair	3
AUBO 212	Auto Body Refinishing	3
AUBO 221	Major Panel Repair	3
AUBO 311	Major Collision Repair	3
AUBO 330	Motor Vehicle Valuation and Insurance	3
AUTO 114	Power Technology	2
AUTO 222	Automotive Engines	3
AUTO 230	Auto Electricity and Electronics	3
AUTO 231	Automotive Air Conditioning	2
AUTO 322	Automotive Diesel	3
AUTO 331	Drive Trains and Suspension	3
AUTO 422	Engine Performance	3
AUTO 430	Heavy Commercial Vehicles Systems	2
COMP 130	Software Applications in Technology	3
ELCT 111	Fundamentals of Electronics	3

MECT 121	Technical Drawing	2
MECT 232	Computer Aided Drawing	2
MTLS 242	Welding Technology	2
MTLS 332	Workshop Practice	2
TCED 111	Engineering Materials	2
TCED 210	Machine and Tool Maintenance	3
TCED 211A	Practicum in Technology	2
TCED 230	Industrial Safety	2
TCED 235	Philosophy of Technical Education	2
TCED 310	Introduction to Fluid Mechanics	2
TCED 325	Technology Entrepreneurship	2
TCED 330	Industrial Economy	2
TCED 410	Thermodynamics	3
TCED 425	Fleet Management	2
TCED 430	Industrial Attachment	2
TCED 440	Research Methods in Technology	2
TCED 450	Research Project	3
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3
TCEM 211	Engineering Mathematics III	3
TCEM 222	Engineering Mathematics IV	3
WOOD 181	Bench Woodworking	2
Total		96

COGNATE COURSES

20 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
CHEM 151	Engineering Chemistry	3
ECON 201	Introduction to Principles of Economics	3
MGMT 130	Fundamentals of Management	3
MGMT 231	Human Resource Management	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
Total		20

BACHELOR OF SCIENCE IN TECHNOLOGY (BST) AUTOMOTIVE FOR UPGRADERS

SUMMARY

General Education Requirements	17
Specialization	97
Cognates	20
Total	134 Credits

This programme is tailored to meet the needs of Technology professionals who hold diploma qualifications in Automotive/Mechanical Technology and who wish to upgrade to degree level. The upgrading programme is expected to take 2 ½ to 3 years to complete.

ADMISSION REQUIREMENTS

Applicants must meet the following requirements:

1. A minimum mean grade of C (plain) at the Kenya Certificate of Secondary Education (KCSE) or its equivalent.

2. A diploma in Automotive/Mechanical Engineering from a recognized institution, with a minimum grade of 4 pass or equivalent.
3. Provide academic transcript and an updated curriculum vitae (CV).

CREDIT TRANSFER

A student seeking to receive credit transfers is expected to petition by filling the credit transfer application form available in the Registrar's Office. The application must be accompanied by a CV, transcript showing all courses, grades from previous training, and course syllabi/outlines. A maximum of 31 credits may be transferred in accordance to policy in the governing bulletin. The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking credit transfer

RECOMMENDED EXEMPTION FOR THE GENERAL COURSES:

18 Credits

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
HLED 110	Health Principles	1
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
PEAC 107	Physical and Recreational Activities	1
ECON 201	Introduction to Principles of Economics	2
OFTE 120	Introduction to Keyboarding	0
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	1
	Vocational Skills	1

RECOMMENDED CORE/CONCENTRATION/ COGNATES COURSES FOR CREDIT TRANSFER

31 Credits

Code	Course Title	Credits
AUBO 131	Fundamentals of Autobody Repair	3
AUTO 223	Automotive Internal Combustion Engines	3
AUTO 233	Autotronic Systems	3
COMP 130	Software Applications in Technology	3
ELCT 111	Fundamentals of Electronics	3
MECT 122	Technical Drawing I - Sketching	2
MECT 222	Technical Drawing I - Drafting	2
MTLS 122	Welding Technology	2
TCED 111	Engineering Materials	2
TCED 211A	Practicum in Technology (Automotive)	2
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3

COURSES FOR CHALLENGE EXAMINATION

Upto 12 credits of challenge exams approved by the Department. The challenge examination shall constitute theory and practical.

GENERAL EDUCATION REQUIREMENT COURSES**17 Credits**

Code	Course Title	Credits
BIOL 105	Human Biology	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
HLED 110	Health Principles	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		17

SPECIALIZATION COURSES**97 Credits**

Code	Course Title	Credits
AUBO 131	Fundamentals of Auto Body Repair	3
AUBO 212	Auto Body Refinishing	3
AUBO 320	Panel and Major Collision Repair	4
AUBO 330	Motor Vehicle Valuation and Insurance	2
AUTO 115	Power Technology	3
AUTO 223	Automotive Internal Combustion Engines	3
AUTO 233	Autotronic Systems	3
AUTO 235	Automotive Electronic Diagnosis and Programming	3
AUTO 311	Automotive Air Conditioning	2
AUTO 332	Automotive Drive Train Systems	2
AUTO 333	Automotive Suspension and Alignment	2
AUTO 342	Automotive Diesel Engines	3
AUTO 422	Engine Performance	3
AUTO 430	Heavy Commercial Vehicle Systems	3
COMP 130	Software Applications in Technology	3
ELCT 111	Fundamentals of Electronics	3
MECT 122	Technical Drawing I - Sketching	2
MECT 222	Technical Drawing II - Drafting	3
MECT 232	Computer Aided Drawing	2
MTLS 122	Welding Technology	2
MTLS 270	Workshop Technology and Maintenance	3
TCED 111	Engineering Materials	2
TCED 211A	Practicum in Technology	2
TCED 230	Industrial Safety	2
TCED 235	Philosophy of Technical Education	2
TCED 240	Research Methodology	2
TCED 310	Introduction to Fluid Mechanics	2
TCED 325	Technology Entrepreneurship	2
TCED 330	Industrial Economy	2
TCED 405	Research Methods in Technology	1
TCED 410	Thermodynamics	3
TCED 455	Research Project	2
TCED 425	Fleet Management	2
TCED 430	Industrial Attachment	2
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3
TCEM 211	Engineering Mathematics III	3
TCEM 222	Engineering Mathematics IV	3
WOOD 181	Bench Woodworking	2
Total		97

COGNATE COURSES**20 Credits**

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
CHEM 151	Engineering Chemistry	3
ECON 201	Introduction to Principles of Economics	3
MGMT 130	Fundamentals of Management	3
MGMT 231	Human Resource Management	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
Total		20

BACHELOR OF SCIENCE IN TECHNOLOGY (BST) ELECTRONICS**SUMMARY**

General Education Requirements	28
Specialization	86
Communication/Industrial Option	15
Cognates	17
Total	145 Credits

Electronics majors are exempt from the following General Education Requirements and are not expected to take ELCT 100 as a vocational course. A minimum grade of C (plain) must be attained at the prerequisite level in all Technology Courses before one can register for the next level.

Code	Course Title	Credits
EDUC 215	Introduction to Philosophy of Christian Education	2
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
OFTE 120	Keyboarding	0
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2

GENERAL EDUCATION REQUIREMENT COURSES**28 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		28

SPECIALIZATION COURSES 86 Credits

A minimum grade of C (plain) be attained at the prerequisite level in all Technology courses before one can register for the next level.

Code	Course Title	Credits
AUTO 115	Power Technology	3
CMMT 320	Analog and Digital Filters	3
COMP 130	Software Applications in Technology	3
COMP 321	Digital Integrated Circuits	3
COMP 335	Networking and Cyber Security	2
COMP 336	Web Development and Management	2
COMP 342	Embedded Circuits and Systems	3
ELCT 111	Fundamentals of Electronics	3
ELCT 123	Analog Electronics I	3
ELCT 211	Analog Electronics II	3
ELCT 332	Product Development and Design	2
INEL 222	Instrumentation and Measurements	2
INEL 233	Electrical Machines and Drives	2
INEL 313	Electrical Installation and Costing	2
MECT 122	Technical Drawing I - Sketching	2
MECT 232	Computer Aided Drawing	2
MTLS 122	Welding Technology	2
SDEV 211	Software Engineering Principles	2
SDEV 222	Object Oriented Analysis and Design	3
SDEV 333	Object Oriented Programming and Implementations	3
TCED 111	Engineering Materials	2
TCED 211E	Practicum in Technology	2
TCED 230	Industrial Safety	2
TCED 235	Philosophy of Technical Education	2
TCED 240	Research Methodology	2
TCED 325	Technology Entrepreneurship	2
TCED 330	Industrial Economy	2
TCED 405	Research Methods in Technology	1
TCED 410	Thermodynamics	3
TCED 430	Industrial Attachment	2
TCED 455	Research Project	2
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3
TCEM 211	Engineering Mathematics III	3
TCEM 222	Engineering Mathematics IV	3
WOOD 181	Bench Woodworking	2
Total		86

COMMUNICATION OPTION COURSES 15 Credits

Code	Course Title	Credits
CMMT 321	Communication Principles	3
CMMT 333	Digital RF Systems and Circuits	2
CMMT 342	TV and Video Broadcasting Systems	2
COEM 411	Video Production	2
CMMT 412	Telecom and Packets Networks	3
CMMT 423	Mobile and Satellite Communication	3
Total		15

INDUSTRIAL ELECTRONICS OPTION COURSES 15 Credits

Code	Course Title	Credits
INEL 331	Control I	3
INEL 410	Industrial Electronic Devices and Circuits	2
INEL 410	Machine Drives	3
INEL 412	Control II	2
INEL 420	Power Systems	3
INEL 423	Programmable Logic Controllers	2
Total		15

COGNATE COURSES 17 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
CHEM 151	Engineering Chemistry	3
ECON 201	Introduction to Principles of Economics	3
MGMT 130	Fundamentals of Management	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
Total		17

BACHELOR OF SCIENCE IN TECHNOLOGY (BST) ELECTRONICS FOR UPGRADERS

SUMMARY

General Education Requirements	17
Specialization	86
Communication/Industrial Option	15
Cognates	17
Total	135 Credits

This programme is tailored to meet the needs of Technology professionals who hold diploma qualifications in Communication, Industrial Electronics Engineering Technology or equivalent qualifications and wish to upgrade to degree level. The upgrading programme is expected to take 2 ½ to 3 years to complete.

ADMISSION REQUIREMENTS

Applicants must meet the following requirements:

1. A minimum mean grade of C (plain) at the Kenya Certificate of Secondary Education (KCSE) or its equivalent.
2. A diploma in Communication or Industrial Electronics Engineering from a recognized institution with a minimum grade of 4 pass or equivalent.
3. Provide academic transcript, updated curriculum vitae (CV).

CREDIT TRANSFER

A student seeking to receive credit transfers is expected to petition by filling the credit transfer application form available in the Registrar's Office. The application must be accompanied by a CV, transcript showing all courses, grades from previous training, and course syllabi/outlines. A maximum of 30 credits may be transferred in accordance to policy in the governing bulletin. The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking credit transfer.

RECOMMENDED EXEMPTION FOR THE GENERAL COURSES:

18 Credits

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
HLED 110	Health Principles	1
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
KISW 114 / FREN 103	Language Skills in Kiswahili/ Beginning French II	2
PEAC 107	Physical and Recreational Activities	1
ECON 201	Introduction to Principles of Economics	2
OFTE 120	Introduction to Keyboarding	0
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	1
	Vocational Skills	1

RECOMMENDED CORE/CONCENTRATION/ COGNATES COURSES FOR CREDIT TRANSFER

30 Credits

Code	Course Title	Credits
COMP 130	Software Applications in Technology	3
ELCT 111	Fundamentals of Electronics	3
ELCT 123	Analog Electronics I	3
INEL 222	Instrumentation and Measurements	2
INEL 233	Electrical Machines and Drives	2
INEL 313	Electrical Installation and Costing	2
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3
MECT 121	Technical Drawing	2
PHYS 155	General Physics	3

COURSES FOR CHALLENGE EXAMINATION

Upto 12 credits of challenge exams approved by the Department. The challenge examination shall constitute theory and practical.

GENERAL EDUCATION REQUIREMENT COURSES

17 Credits

Code	Course Title	Credits
BIOL 105	Human Biology	2
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
HLED 110	Health Principles	2

RELB 220	Life and Teachings of Jesus Christ	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		17

SPECIALIZATION COURSES

86 Credits

A minimum grade of C (plain) be attained at the prerequisite level in all Technology courses before one can register for the next level.

Code	Course Title	Credits
AUTO 115	Power Technology	3
CMMT 320	Analog and Digital Filters	3
COMP 130	Software Applications in Technology	3
COMP 321	Digital Integrated Circuits	3
COMP 335	Networking and Cyber Security	2
COMP 336	Web Development and Management	2
COMP 342	Embedded Circuits and Systems	3
ELCT 111	Fundamentals of Electronics	3
ELCT 123	Analog Electronics I	3
ELCT 211	Analog Electronics II	3
ELCT 332	Product Development and Design	2
INEL 222	Instrumentation and Measurements	2
INEL 233	Electrical Machines and Drives	2
INEL 313	Electrical Installation and Costing	2
MECT 122	Technical Drawing I - Sketching	2
MECT 232	Computer Aided Drawing	2
MTLS 122	Welding Technology	2
SDEV 211	Software Engineering Principles	2
SDEV 222	Object Oriented Analysis and Design	3
SDEV 333	Object Oriented Programming and Implementations	3
TCED 111	Engineering Materials	2
TCED 211E	Practicum in Technology	2
TCED 230	Industrial Safety	2
TCED 235	Philosophy of Technical Education	2
TCED 240	Research Methodology	2
TCED 325	Technology Entrepreneurship	2
TCED 330	Industrial Economy	2
TCED 405	Research Methods in Technology	1
TCED 410	Thermodynamics	3
TCED 430	Industrial Attachment	2
TCED 455	Research Project	2
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3
TCEM 211	Engineering Mathematics III	3
TCEM 222	Engineering Mathematics IV	3
WOOD 181	Bench Woodworking	2
Total		86

COMMUNICATION OPTION COURSES

15 Credits

Code	Course Title	Credits
CMMT 321	Communication Principles	3
CMMT 333	Digital RF Systems and Circuits	2
CMMT 342	TV and Video Broadcasting Systems	2
COEM 411	Video Production	2
CMMT 412	Telecom and Packets Networks	3

CMMT 423	Mobile and Satellite Communication	3
Total		15

INDUSTRIAL ELECTRONICS OPTION COURSES 15 Credits

Code	Course Title	Credits
INEL 331	Control I	3
INEL 410	Industrial Electronic Devices and Circuits	2
INEL 410	Machine Drives	3
INEL 412	Control II	2
INEL 420	Power Systems	3
INEL 423	Programmable Logic Controllers	2
Total		15

COGNATE COURSES 17 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
CHEM 151	Engineering Chemistry	3
ECON 201	Introduction to Principles of Economics	3
MGMT 130	Fundamentals of Management	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
Total		17

BACHELOR OF SCIENCE IN TECHNOLOGY EDUCATION

SUMMARY

General Education Requirements	9
Core Education Courses	50
Core Technology Courses	42
First Teaching Area (Automotive/Electronics/Electrical)	21-24
Second Teaching Area	18-19
Cognate Courses	6
Totals	146-150 Credits

GENERAL EDUCATION REQUIREMENTS COURSES 9 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
RELB 220	Life and Teachings of Jesus	2
RELT 207	Christian Beliefs	3
Total		9

CORE EDUCATION COURSES 50 Credits

Code	Course Title	Credits
EDTE 180	Health Education and Life Skills	2
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods of Teaching	3
EDTE 301	Educational Communication and Technology	3

EDTE 326	Educational Measurement and Evaluation	3
EDTE 333	Research Methods in Education	3
EDTE 399	Teaching Practice in Secondary School	6
EDTM 328	Special Methods in Teaching STEM	3
EDTM	Second Teaching Area Methods Course	3
EDPC 106	Educational Psychology	3
EDPC 238	Human Growth and Development	3
EDPC 244	Educational Guidance and Counseling	2
EDFO 130	History of Education	2
EDFO 280	Sociology and Comparative Education	3
EDFO 400	Educational Policy and Management	3
EDFO 401	Planning and Economics of Education	3
EDFO 410	Environmental Education	2
Total		50

CORE TECHNOLOGY COURSES 42 Credits

Code	Course Title	Credits
COMP 130	Software Applications in Technology	3
ELCT 111	Fundamentals of Electronics	3
MECT 122	Technical Drawing I - Sketching	2
MECT 222	Technical Drawing II - Drafting	3
MECT 232	Computer Aided Drawing	2
MTLS 122	Welding Technology	2
MTLS 270	Workshop Technology and Maintenance	3
TCED 111	Engineering Materials	2
TCED 230	Industrial Safety	2
TCED 235	Philosophy of Technical Education	2
TCED 325	Technology Entrepreneurship	2
TCED 410	Thermodynamics	3
TCEM 111	Engineering Mathematics I	3
TCEM 122	Engineering Mathematics II	3
TCEM 211	Engineering Mathematics III	3
TCED 430	Industrial Attachment	2
TCED 455	Research Project	2
Total		42

1ST TEACHING AREA (AUTOMOTIVE TECHNOLOGY) 24 Credits

Code	Course Title	Credits
AUBO 131	Fundamentals of Auto Body Repair	3
AUTO 115	Power Technology	3
AUTO 223	Automotive Internal Combustion Engines	3
AUTO 233	Autotronic Systems	3
AUTO 332	Automotive Drive Train Systems	2
AUTO 333	Automotive Suspension and Alignment	2
AUTO 342	Automotive Diesel Engines	3
AUTO 422	Engine Performance	3
TCED 310	Introduction to Fluid Mechanics	2
Total		24

SECOND TEACHING AREA

As per the requirements for a second teaching area within secondary and technical institutes, any of the following areas may be chosen.

DRAFTING**18 Credits**

Code	Course Title	Credits
MECT 233	Construction Drawing	3
MECT 234	Assembly Drawings	3
MECT 235	Computer Aided Drawing II	3
MECT 345	Interior Design Drawing	3
MECT 400	Visualization and Rendering	3
MECT 410	3D Modelling and Printing	3
Total		18

ELECTRONICS**19 Credits**

Code	Course Title	Credits
CMMT 320	Analog and Digital Filters	3
COMP 321	Digital Integrated Circuits	3
COMP 335	Networking and Cyber Security	2
COMP 342	Embedded Systems and Circuits	3
ELCT 123	Analog Electronics I	3
ELCT 211	Analog Electronics II	3
SDEV 211	Software Engineering Principles	2
Total		19

ELECTRICAL**18 Credits**

Code	Course Title	Credits
ELCT 123	Analog Electronics I	3
ELCT 211	Analog Electronics II	3
INEL 233	Electrical Machines and Drives	2
INEL 313	Electrical Installation and Costing	2
INEL 331	Control I	3
INEL 410	Industrial Electronic Devices and Circuits	2
INEL 430	PV Systems Installation	3
Total		18

WELDING**18 Credits**

Code	Course Title	Credits
MTLS 232	Material Selection and Fabrication	3
MTLS 344	Gas Welding and Cutting	3
MTLS 360	Soldering and Brazing	3
MTLS 440	Arc Welding	3
MTLS 450	MIG/TIG Welding	4
MTLS 460	Occupational Opportunities in Welding	2
Total		18

WOOD**18 Credits**

Code	Course Title	Credits
WOOD 170	Carpentry I	3
WOOD 280	Carpentry II	3
WOOD 300	Carpentry III	3
WOOD 387	Furniture Design and Construction	3
WOOD 400	Finish Carpentry	3
WOOD 450	Furniture Upholstery	3
Total		18

COGNATES**6 Credits**

Code	Course Title	Credits
CHEM 151	Engineering Chemistry	3
PHYS 155	General Physics	3
Total		6

BACHELOR OF SCIENCE IN TECHNOLOGY EDUCATION FOR UPGRADERS

Applicants who hold diploma qualifications in Technology Education or related diploma recognized the Ministry of Education and wish to upgrade to degree level, can apply. Specific listing of courses to undertake will be advised by assigned course advisor(s). Applicants must meet the following requirements:

1. A form four certificate or its equivalent.
2. A diploma in Technology Education or related diploma from a recognized institution approved by the Ministry of Education.
3. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma programme in which the qualification was obtained

Procedure for Upgrading

An upgrading student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer is expected to:

1. Petition by filling the credit transfer application form, available in the Registrar's office.
2. The application must be accompanied by a CV, transcript showing all the courses, grades from previous training, and course syllabi/outlines. Seek advice on courses slated for exemption or credit transfer.
3. The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking credit transfer.
4. A maximum of 49% of the total credits may be transferred and exempted.
5. Additional credits based on additional training after the basic diploma may be applied on individual basis.

COURSES FOR CHALLENGE EXAMINATION

Upto 12 credits of challenge exams approved by the Department. The challenge examination shall constitute theory and practical.

1ST TEACHING AREA (ELECTRONICS)**23 Credits**

Code	Course Title	Credits
CMMT 320	Analog and Digital Filters	3
COMP 321	Digital Integrated Circuits	3
COMP 335	Networking and Cyber Security	2
COMP 342	Embedded Systems and Circuits	3
ELCT 123	Analog Electronics I	2
ELCT 211	Analog Electronics II	2
ELCT 391	Alternative Energy Sources	2
SDEV 211	Software Engineering Principles	2
INEL 222	Instrumentation and Measurements	2
Total		23

OR**1ST TEACHING AREA (ELECTRICAL TECHNOLOGY)****23 Credits**

Code	Course Title	Credits
ELCT 123	Analog Electronics I	3
ELCT 211	Analog Electronics II	3
ELCT 391	Alternative Energy Sources	2
INEL 233	Electrical Machines and Drives	2
INEL 313	Electrical Installation and Costing	2
INEL 331	Control I	2

INEL 410	Industrial Electronic Devices and Circuits	2
INEL 420	Power Systems	3
INEL 430	PV Systems Installation	2
Total		23

SECOND TEACHING AREA

As per the requirements for a second teaching area within secondary and technical institutes, any of the following areas may be chosen.

DRAFTING 18 Credits

Code	Course Title	Credits
MECT 233	Construction Drawing	3
MECT 234	Assembly Drawings	3
MECT 235	Computer Aided Drawing II	3
MECT 345	Interior Design Drawing	3
MECT 400	Visualization and Rendering	3
MECT 410	3D Modelling and Printing	3
Total		18

WELDING 18 Credits

Code	Course Title	Credits
MTLS 232	Material Selection and Fabrication	3
MTLS 344	Gas Welding and Cutting	3
MTLS 360	Soldering and Brazing	3
MTLS 440	Arc Welding	3
MTLS 450	MIG/TIG Welding	4
MTLS 460	Occupational Opportunities in Welding	2
Total		18

WOOD 18 Credits

Code	Course Title	Credits
WOOD 170	Carpentry I	3
WOOD 280	Carpentry II	3
WOOD 300	Carpentry III	3
WOOD 387	Furniture Design and Construction	3
WOOD 400	Finish Carpentry	3
WOOD 450	Furniture Upholstery	3
Total		18

COGNATES 6 Credits

Code	Course Title	Credits
CHEM 151	Engineering Chemistry	3
PHYS 155	General Physics	3
Total		6

MINOR IN ELECTRONICS

SUMMARY

Specialization	29
Electives	5-6
Total	34-35 Credits

SPECIALIZATION COURSES 29 Credits

Code	Course Title	Credits
COMP 321	Digital Integrated Circuits	3
COMP 335	Networking and Cyber Security	2

COMP 336	Web Development and Management	2
CMMT 320	Analog and Digital Filters	3
ELCT 111	Fundamentals of Electronics	3
ELCT 123	Analog Electronics I	3
ELCT 211	Analog Electronics II	3
ELCT 332	Product Design and Development	2
INEL 222	Instrumentation and Measurements	2
INEL 313	Electrical Installation and Costing	2
MECT 232	Computer Aided Drawing	2
TCED 211E	Practicum in Technology	2
Total		29

ELECTIVE COURSES 5-6 Credits

Code	Course Title	Credits
COMP 342	Embedded Systems and Circuits	3
CMMT 321	Communication Principles	3
CMMT 342	TV and Video Broadcasting Systems	2
INEL 233	Electrical Machines and Drives	2
Total		5-6

MINOR IN ROBOTICS TECHNOLOGY (RBTE)

SUMMARY

Specialization	33
Electives	3
Total	36 Credits

SPECIALIZATION COURSES 33 Credits

Code	Course Title	Credits
COMP 230	Introduction to Computer Systems Engineering	3
COMP 240	Robotic Programming Essentials	3
RBTE 200	Control Systems	3
RBTE 220	Robotics I	3
RBTE 230	Machine Learning and Artificial Intelligence	3
RBTE 240	Statics and Dynamics	3
RBTE 300	Mechatronics	3
RBTE 320	Robotics II	2
RBTE 330	Human Machine Interface	2
INEL 423	Programmable Logic Controllers	2
RBTE 430	Industrial Attachment	2
RBTE 450	Research Project in Robotics	4
Total		33

ELECTIVE COURSES 3 Credits

Code	Course Title	Credits
COMP 400	Computer Vision and Pattern Recognition	3
RBTE 400	Industrial Robots	3
RBTE 420	Embedded Robotics	3

Bachelor of Science in AVIATION MANAGEMENT

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AVLG 100	International Language (French, English, Chinese)	4	0	4	AVMG 100	Introduction to Aviation Business and Ethics	2	0	2
	AVFL 100	Principles of Flight: Aeroplanes I	2	1	3	AVFL 111	Air Law I	3	0	3
	AVFL 101	Aircraft General Knowledge (Airframes & Systems)	3	1	4	AVFL 120	Meteorology I	2	0	2
	AVFL 103	Aircraft Performance and Planning I	2	1	3	AVFL 121	Radio Telephony/Communication Skills	1	1	2
	AVFL 110	Human Performance and Limitation I	2	0	2	AVFL 122	Operational Procedures I	2	0	2
	AVFL 155	PPL Flying Hours I (Pre-Flight & Pre-Solo)	1	1	2	AVFL 124	General Navigation I	3	1	4
	ENGL 131	Communication and Writing Skills	2	0	2	AVFL 156	PPL Flying Hours II (First Solo & Consolidation)	1	1	2
	RELH 155	Adventist Heritage	2	0	2	RELT 207	Christian Beliefs	3	0	3
	Total		18	4	22	Total		17	3	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AVFL 200	Principles of Flight: Aeroplanes II	3	1	4	AVFL 213	Aircraft Performance and Planning II	6	1	7
	AVFL 201	Aircraft General Knowledge (Power Plants)	3	1	4	AVFL 220	Meteorology II	3	0	3
	AVFL 202	Aircraft General Knowledge (Electrics & Electronics)	2	1	3	AVFL 222	Operational Procedures II	2	0	2
	AVFL 210	Human Performance and Limitation II	3	0	3	AVFL 224	General Navigation II	5	1	6
	AVFL 211	Air Law II	5	0	5	AVFL 230	Morse Code	1	0	1
	AVFL 240	CPL Flying Hours I (Basic Instrument Flying)	1	1	2	AVFL 241	CPL Flying Hours II (Night Flying)	1	1	2
	RELB 220	Life and Teachings of Jesus Christ	2	0	2	AVFL 242	CPL Flying Hours III (Commercial Visual Navigation)		1	1
	Total		19	4	23	Total		18	4	22
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AVFL 340	ATPL Flying Hours I (IR)	1	1	2	ACCT 110	Book Keeping and Accounting	2	0	2
	AVFN 300	Aviation Finance	2	0	2	AVFL 341	ATPL Flying Hours II (Multi-Engine Rating)	1	1	2
	ECON 201	Introduction to Principles of Economics	3	0	3	AVFL 342	ATPL Flying Hours III (Commercial Operations)	1	0	1
	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2		Vocational Course -	1	0	1
	INSY 119	Business Information Processing and Applications	3	0	3	AVFL 355	ATPL (Frozen)	1	0	1
	MGMT 103	Basic Management and Entrepreneurial Skills	2	0	2	TCED 240	Research Methodology	2	0	2
	MGMT 220	Business Statistics I	3	0	3					
	Total		16	1	17	Total		8	1	9
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AVMG 300	Organizational Theory and Behaviour	2	0	2	AVMG 310	Airline Management and Economics	3	0	3
	AVMG 301	Airport Management and Planning	2	0	2	AVMG 320	Quality Management systems	2	0	2
	AVMG 302	Air Traffic Management	2	0	2	AVMG 330	Civil Aviation Management	2	0	2
	AVMG 304	Aviation Risk and Insurance	2	0	2	AVMG 350	Airfreight Operations (Dangerous goods)	3	0	3
	AVMG 305	Crew Resource Management/HRM	3	0	3	PEAC 107	Physical and Recreational Activities		1	1
	AVMG 307	Aviation Security and Safety (Airport Pass)	3	0	3	TCED 430	Industrial Attachment	2	0	2
	RELT 255	Introduction to Christian Ethics	2	0	2	TCED 455	Research Project	2	0	2
	Total		16	0	16	Total		14	1	15

Bachelor of Science in AUTOMOTIVE TECHNOLOGY

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ELCT 111	Fundamentals of Electronics	2	1	3	ACCT 110	Book Keeping and Accounting	2	0	2
	ENGL 105	Writing Skills	3	0	3	AUTO 115	Power Technology	2	1	3
	PHYS 155	General Physics	2	1	3	COMP 130	Software Applications in Technology	2	1	3
	MECT 122	Technical Drawing I - Sketching	1	1	2	ENGL106	Speech Communication	1	0	1
	RELH 155	Adventist Heritage	2	0	2	MECT 222	Technical Drawing II - Drafting	2	1	3
	TCED 111	Engineering Materials	2	0	2	MTLS122	Welding Technology	1	1	2
	TCEM 111	Engineering Mathematics I	3	0	3	TCED 230	Industrial Safety	2	0	2
						TCEM 122	Engineering Mathematics II	3	0	3
	Total		15	3	18	Total		15	4	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AUBO 131	Fundamentals of Autobody Repair	2	1	3	AUBO 212	Autobody Refinishing	2	1	3
	AUTO 223	Automotive Internal Combustion Engines	2	0	2	AUTO 233	Autotronic Systems	2	1	3
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	BIOL 105	Human Biology	1	1	2
	MGMT 130	Fundamentals of Management	3	0	3	MECT 232	Computer Aided Drawing	1	1	2
	MTLS 270	Workshop Technology and Maintenance	2	1	3	RELT 207	Christian Beliefs	3	0	3
	PSYS 101 SOCI 121	Introduction to Psychology/ Introduction to Sociology	2	0	2	TCED 235	Philosophy of Technical Education	2	0	2
	TCEM 211	Engineering Mathematics III	3	0	3	TCEM 222	Engineering Mathematics IV	3	0	3
						WOOD 181	Bench Woodworking	1	1	2
	Total		16	2	18	Total		15	5	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AUBO 320	Panel and Major Collision Repair	3	1	4	AUTO 110	Automobile Driving	1	0	1
	AUTO 235	Automotive Electronic Diagnosis and Programming	2	1	3	AUTO 311	Automotive Air Conditioning	1	1	2
	HIST 111	History of World Civilizations or Issues in Development Studies	2	0	2	AUTO 332	Automotive Drive Trains Systems	1	1	2
	MGMT 231	Human Resources Management	3	0	3	CHEM 151	Engineering Chemistry	2	1	3
	PEAC 107	Physical Activities and Recreational Games	1	0	1	HLED 110	Health Principles	2	0	2
	RELT 255	Introduction to Christian Ethics	2	0	2	RELB 220	Life and Teachings of Jesus Christ	2	0	2
	TCED 325	Technology Entrepreneurship	2	0	2	COSC 150	Applied Statistics in IT	3	0	3
						TCED 211A	Practicum in Technology	2	0	2
	Total		15	2	17	Total		16	3	19
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AUBO 330	Vehicle Valuation and Insurance	2	0	2	AUTO 422	Engine Performance	2	1	3
	AUTO 333	Automotive Suspension and Alignment	1	1	2	AUTO 430	Heavy Commercial Vehicle Systems	2	1	3
	AUTO 342	Automotive Diesel Engines	2	1	3	ECON 201	Introduction to Principles of Economics	3	0	3
	MUGR 100/ LITE 151	Music Appreciation / Introduction to Literary Appreciation	2	0	2	TCED 330	Industrial Economy	2	0	2
	TCED 310	Introduction to Fluid Mechanics	2	0	2	TCED 425	Fleet Management	2	0	2
	TCED 405	Research Methods in Technology	1	0	1	TCED 430	Industrial Attachment	2	0	2
	TCED 410	Thermodynamics	3	0	3	TCED 455	Research Project	2	0	2
	Total		13	2	15	Total		15	2	17

Bachelor of Science in ELECTRONICS TECHNOLOGY (COMMUNICATION OPTION)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ELCT 111	Fundamentals of Electronics	2	1	3	AUTO 115	Power Technology	2	1	3
	ENGL 105	Writing Skills	3	0	3	COMP 130	Software Applications in Technology	2	1	3
	MECT 122	Technical Drawing I - Sketching	1	1	2	ELCT 123	Analog Electronics I	2	1	3
	PHYS 155	General Physics	2	1	3	ENGL 106	Speech Communication	1	0	1
	RELH 155	Adventist Heritage	2	0	2	HLED 110	Health Principles	2	0	2
	TCED 111	Engineering Materials	1	1	2	RELB 207	Christian Beliefs	3	0	3
	TCEM 111	Engineering Mathematics I	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3
						TCED 230	Industrial Safety	2	0	2
	Total		14	4	18	Total		17	3	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ACCT 110	Bookkeeping and Accounting	2	0	2	CHEM 151	Engineering Chemistry	2	1	3
	ELCT 211	Analog Electronics II	2	1	3	INEL 222	Instrumentation and Measurements	1	1	2
	MUGR 100	Music Appreciation/	2	0	2	MECT 232	Computer Aided Drawing	1	1	2
	LITE 151	Introduction to Literary Appreciation				RELT 255	Introduction to Christian Ethics	2	0	2
	INEL 233	Electrical Machines and Drives	1	1	2	SDEV 222	Object Oriented Analysis and Design	2	1	3
	PEAC 107	Physical and Recreational Activities	1	0	1	TCED 211E	Practicum in Technology	2	0	2
	RELB 220	Life and Teachings of Jesus Christ	2	0	2	TCED 235	Philosophy of Technical Education	2	0	2
	SDEV 211	Software Engineering Principles	1	1	2	TCEM 222	Engineering Mathematics IV	3	0	3
	TCEM 211	Engineering Mathematics III	3	0	3	Total		15	4	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOL 105	Human Biology	1	1	2	COMP 335	Networking and Cyber Security	1	1	2
	COMP 321	Digital Integrated Circuits	2	1	3	COMP 336	Web Development and Management	1	1	2
	ELCT 332	Product Development and Design	1	1	2	ECON 201	Introduction to Principles of Economics	3	0	3
	HIST 119	Issues in Development Studies	2	0	2	INEL 313	Electrical Installation and Costing	1	1	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	MTLS 122	Welding Technology	1	1	2
	MGMT 130	Fundamentals of Management	3	0	3	COSC 150	Applied Statistics in IT	3	0	3
	SDEV 333	Object Oriented Programming and Implementations	2	1	3	TCED 240	Research Methodology	2	0	2
	TCED 325	Technology Entrepreneurship	2	0	2	VOC SKILLS	Vocational Skills (Automobile Driving)	1	0	1
						WOOD 181	Bench Woodworking	1	1	2
	Total		15	4	19	Total		14	5	19
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	CMMT 320	Analog and Digital Filters	2	1	3	COMP 342	Embedded Circuits and Systems	2	1	3
	CMMT 321	Communication Principles	2	1	3	CMMT 333	Digital RF Circuits and Systems	1	1	2
	CMMT 342	TV and Video Broadcasting Systems	1	1	2	COEM 411	Video Production	1	1	2
	SOCI 121	Introduction to Sociology/				CMMT 412	Telecom and Packet Network Systems	2	1	3
	PSYC 101	Introduction to Psychology/	2	0	2	CMMT 423	Mobile and Satellite Communications	2	1	3
	SWFI 207	Family Issues				TCED 330	Industrial Economy	2	0	2
	TCED 405	Research Methods in Technology	1	0	1	TCED 430	Industrial Attachment	2	0	2
	TCED 410	Thermodynamics	3	0	3	TCED 455	Research Project	2	0	2
	Total		11	3	14	Total		14	5	19

Bachelor of Science in ELECTRONICS TECHNOLOGY (INDUSTRIAL OPTION OPTION)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ELCT 111	Fundamentals of Electronics	2	1	3	AUTO 115	Power Technology	2	1	3
	ENGL 105	Writing Skills	3	0	3	COMP 130	Software Applications in Technology	2	1	3
	MECT 122	Technical Drawing I - Sketching	1	1	2	ELCT 123	Analog Electronics I	2	1	3
	PHYS 155	General Physics	2	1	3	ENGL 106	Speech Communication	1	0	1
	RELH 155	Adventist Heritage	2	0	2	HLED 110	Health Principles	2	0	2
	TCED 111	Engineering Materials	1	1	2	RELB 207	Christian Beliefs	3	0	3
	TCEM 111	Engineering Mathematics I	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3
	Total		14	4	18	Total		17	3	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ACCT 110	Bookkeeping and Accounting	2	0	2	CHEM 151	Engineering Chemistry	2	1	3
	ELCT 211	Analog Electronics II	2	1	3	INEL 222	Instrumentation and Measurements	1	1	2
	MUGR 100	Music Appreciation/	2	0	2	MECT 232	Computer Aided Drawing	1	1	2
	LITE 151	Introduction to Literary Appreciation				RELT 255	Introduction to Christian Ethics	2	0	2
	INEL 233	Electrical Machines and Drives	1	1	2	SDEV 222	Object Oriented Analysis and Design	2	1	3
	PEAC 107	Physical and Recreational Activities	1	0	1	TCED 211E	Practicum in Technology	2	0	2
	RELB 220	Life and Teachings of Jesus Christ	2	0	2	TCED 235	Philosophy of Technical Education	2	0	2
	SDEV 211	Software Engineering Principles	1	1	2	TCEM 222	Engineering Mathematics IV	3	0	3
	TCEM 211	Engineering Mathematics III	3	0	3	Total		15	4	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOL 105	Human Biology	1	1	2	COMP 335	Networking and Cyber Security	1	1	2
	COMP 321	Digital Integrated Circuits	2	1	3	COMP 336	Web Development and Management	1	1	2
	ELCT 332	Product Development and Design	1	1	2	ECON 201	Introduction to Principles of Economics	3	0	3
	HIST 119	Issues in Development Studies	2	0	2	INEL 313	Electrical Installation and Costing	1	1	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	MTLS 122	Welding Technology	1	1	2
	MGMT 130	Fundamentals of Management	3	0	3	COSC 150	Applied Statistics in IT	3	0	3
	SDEV 333	Object Oriented Programming and Implementations	2	1	3	TCED 240	Research Methodology	2	0	2
	TCED 325	Technology Entrepreneurship	2	0	2	VOC SKILLS	Vocational Skills (Automobile Driving)	1	0	1
	Total		15	4	19	WOOD 181	Bench Woodworking	1	1	2
4th	Code	Course Title	T	L	TC	Total		14	5	19
	CMMT 320	Analog and Digital Filters	2	1	3	Code	Course Title	T	L	TC
	INEL 331	Control I	2	1	3	COMP 342	Embedded Circuits and Systems	2	1	3
	INEL 410	Industrial Electronic Devices and Circuits	1	1	2	INEL 411	Machine Drives	2	1	3
	SOCI 121 PSYC 101 SWFI 207	Introduction to Sociology/ Introduction to Psychology/ Family Issues	2	0	2	INEL 412	Control II	1	1	2
	TCED 405	Research Methods in Technology	1	0	1	INEL 420	Power Systems	2	1	3
	TCED 410	Thermodynamics	3	0	3	INEL 423	Programmable Logic Controllers	1	1	2
	Total		11	3	14	TCED 330	Industrial Economy	2	0	2
						TCED 430	Industrial Attachment	2	0	2
						TCED 455	Research Project	2	0	2
						Total		14	5	19

Bachelor of Science in TECHNOLOGY EDUCATION (AUTOMOTIVE TECHNOLOGY AND DRAFTING)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	TCED235	Philosophy of Technical Education	2	0	2	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life Skills	2	0	2	
	ELCT111	Fundamentals of Electronics	2	1	3	COMP130	Software Applications in Technology	2	1	3	
	ENGL105	Writing Skills	3	0	3	TCEM122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED230	Industrial Safety	2	0	2	
	MECT122	Technical Drawing I - Sketching	1	1	2	AUTO115	Power Technology	2	1	3	
	TCED111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	4	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PHYS 155	General Physics	2	1	3	AUTO 233	Autotronic Systems	2	1	3	
	AUBO 131	Fundamentals of Auto Body Repair	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	AUTO 222	Automotive Internal Combustion Engines	2	1	3	MECT 233	Construction Drawing	2	1	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	MECT 234	Assembly Drawings	2	1	3	
	Total			16	4	20	Total			16	4
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	CHEM151	Engineering Chemistry	2	1	3	EDTE 333	Research Method in Education	3	0	3	
	MECT 235	Computer Aided Drawing II	1	2	3	AUTO 332	Automotive Drive Train Systems	1	1	2	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	AUTO 342	Automotive Diesel Engines	2	1	3	
	TCED 310	Introduction To Fluid Mechanics	1	1	2	MECT 345	Interior Design Drawing	1	2	3	
	TCEM 211	Engineering Mathematics III	3	0	3						
	Total			15	4	19	Total			13	4
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	AUTO 422	Engine Performance	2	1	3	
	AUTO 333	Automotive Suspension and Alignment	1	1	2	MECT 410	3D Modelling and Printing	1	2	3	
	MECT 400	Visualization and Rendering	1	2	3	TCED 410	Thermodynamics	3	0	3	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 430	Industrial Attachment	2	0	2	
						TCED 455	Research Project	2	0	2	
Total			10	3	13	Total			12	3	15
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (AUTOMOTIVE TECHNOLOGY AND ELECTRONICS)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life Skills	2	0	2	
	ELCT111	Fundamentals of Electronics	2	1	3	COMP130	Software Applications in Technology	2	1	3	
	ENGL105	Writing Skills	3	0	3	TCEM122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED230	Industrial Safety	2	0	2	
	MECT122	Technical Drawing I - Sketching	1	1	2	AUTO115	Power Technology	2	1	3	
	TCED111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	5	21
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	ELCT 211	Analog Electronics II	2	1	3	AUTO 233	Autotronic Systems	2	1	3	
	AUBO 131	Fundamentals of Auto Body Repair	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	AUTO 222	Automotive Internal Combustion Engines	2	1	3	TCED235	Philosophy of Technical Education	2	0	2	
	MTLS 270	Workshop Technology and Maintenance	2	1	3						
	Total			16	4	20	Total			14	2
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	CHEM 151	Engineering Chemistry	2	1	3	EDTE 333	Research Method in Education	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	AUTO 332	Automotive Drive Train Systems	1	1	2	
	PHYS 155	General Physics	2	1	3	AUTO 342	Automotive Diesel Engines	2	1	3	
	SDEV 211	Software Engineering Principles	1	1	2	COMP 325	Networking and Cyber Security	1	1	2	
	TCED 310	Introduction to Fluid Mechanics	1	1	2						
	TCEM 211	Engineering Mathematics III	3	0	3						
Total			16	5	21	Total			13	3	16
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	AUTO 422	Engine Performance	2	1	3	
	AUTO 333	Automotive Suspension and Alignment	1	1	2	COMP 342	Embedded Circuits and Systems	2	1	3	
	COMP 321	Digital Integrated Circuits	2	1	3	RELB 220	Life and Teachings of Jesus Christ	2	0	2	
	CMMT 320	Analog and Digital Filters	2	1	3	TCED 410	Thermodynamics	3	0	3	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 430	Industrial Attachment	2	0	2	
						TCED 455	Research Project	2	0	2	
Total			13	3	16	Total			15	2	17
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (AUTOMOTIVE TECHNOLOGY AND ELECTRICAL)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life Skills	2	0	2	
	ELCT111	Fundamentals of Electronics	2	1	3	COMP130	Software Applications in Technology	2	1	3	
	ENGL105	Writing Skills	3	0	3	TCEM122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED230	Industrial Safety	2	0	2	
	MECT122	Technical Drawing I - Sketching	1	1	2	AUTO115	Power Technology	2	1	3	
	TCED111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	5	21
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	ELCT 211	Analog Electronics II	2	1	3	AUTO 233	Autotronic Systems	2	1	3	
	AUBO 131	Fundamentals of Auto Body Repair	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	AUTO 222	Automotive Internal Combustion Engines	2	1	3	TCED235	Philosophy of Technical Education	2	0	2	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	Total			14	2	16
	Total			16	4	20					
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	CHEM151	Engineering Chemistry	2	1	3	EDTE 333	Research Method in Education	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	AUTO 332	Automotive Drive Train Systems	1	1	2	
	COMP 321	Digital Integrated Circuits	2	1	3	AUTO 342	Automotive Diesel Engines	2	1	3	
	SDEV 211	Software Engineering Principles	1	1	2	INEL 313	Electrical Installation and Costing	1	1	2	
	TCED 310	Introduction To Fluid Mechanics	1	1	2	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	
	TCEM 211	Engineering Mathematics III	3	0	3	Total			15	3	18
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	AUTO 422	Engine Performance	2	1	3	
	AUTO 333	Automotive Suspension And Alignment	1	1	2	COMP 342	Embedded Circuits and Systems	2	1	3	
	CMMT 320	Analog and Digital Filters	2	1	3	INEL 430	PV Systems Installation	2	1	3	
	INEL 331	Control I	2	1	3	TCED 410	Thermodynamics	3	0	3	
	INEL 410	Industrial Electronic Devices and Circuits	1	1	2	TCED 430	Industrial Attachment	2	0	2	
	PHYS 155	General Physics	2	1	3	TCED 455	Research Project	2	0	2	
	TCED 325	Technology Entrepreneurship	2	0	2	Total			15	3	18
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (AUTOMOTIVE TECHNOLOGY AND WELDING)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	TCED235	Philosophy of Technical Education	2	0	2	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life Skills	2	0	2	
	ELCT111	Fundamentals of Electronics	2	1	3	COMP130	Software Applications In Technology	2	1	3	
	ENGL105	Writing Skills	3	0	3	TCEM122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED230	Industrial Safety	2	0	2	
	MECT122	Technical Drawing I - Sketching	1	1	2	AUTO115	Power Technology	2	1	3	
	TCED111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	4	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PHYS 155	General Physics	2	1	3	AUTO 233	Autotronic Systems	2	1	3	
	AUBO 131	Fundamentals of Auto Body Repair	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	AUTO 222	Automotive Internal Combustion Engines	2	1	3	MTLS 232	Material Selection and Fabrication	2	1	3	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2						
	Total			16	3	19	Total			14	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	CHEM151	Engineering Chemistry	2	1	3	EDTE 333	Research Method in Education	3	0	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	AUTO 332	Automotive Drive Train Systems	1	1	2	
	TCED 310	Introduction To Fluid Mechanics	1	1	2	AUTO 342	Automotive Diesel Engines	2	1	3	
	TCEM 211	Engineering Mathematics III	3	0	3	MTLS 344	Gas Welding and Cutting	2	1	3	
						MTLS 360	Soldering and Brazing	2	1	3	
	Total			14	3	17	Total			16	4
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	AUTO 422	Engine Performance	2	1	3	
	AUTO 333	Automotive Suspension and Alignment	1	1	2	MTLS 460	Occupational Opportunities in Welding	2	0	2	
	MTLS 440	Arc Welding	2	1	3	TCED 410	Thermodynamics	3	0	3	
	MTLS 450	MIG/TIG/PLASMA Welding	2	2	4	TCED 430	Industrial Attachment	2	0	2	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 455	Research Project	2	0	2	
Total			13	4	17	Total			13	1	14
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (AUTOMOTIVE TECHNOLOGY AND WOOD)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC106	Educational Psychology	3	0	3	TCED235	Philosophy of Technical Education	2	0	2	
	EDFO130	History of Education	2	0	2	EDTE180	Health Education and Life Skills	2	0	2	
	ELCT111	Fundamentals of Electronics	2	1	3	COMP130	Software Applications in Technology	2	1	3	
	ENGL105	Writing Skills	3	0	3	TCEM122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED230	Industrial Safety	2	0	2	
	MECT122	Technical Drawing I - Sketching	1	1	2	AUTO115	Power Technology	2	1	3	
	TCED111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	4	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELB 220	Life and Teachings of Jesus Christ	2	0	2	
	PHYS 155	General Physics	2	1	3	AUTO 233	Autotronic Systems	2	1	3	
	AUBO 131	Fundamentals of Auto Body Repair	2	1	3	WOOD 170	Carpentry I	2	1	3	
	AUTO 222	Automotive Internal Combustion Engines	2	1	3	WOOD 280	Carpentry II	2	1	3	
	CHEM151	Engineering Chemistry	2	1	3						
Total			16	4	20	Total			14	3	17
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	EDTE 333	Research Method in Education	3	0	3	
	TCED 310	Introduction To Fluid Mechanics	1	1	2	AUTO 332	Automotive Drive Train Systems	1	1	2	
	TCEM 211	Engineering Mathematics III	3	0	3	AUTO 342	Automotive Diesel Engines	2	1	3	
						WOOD 300	Carpentry III	2	1	3	
Total			12	2	14	Total			14	3	17
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	AUTO 422	Engine Performance	2	1	3	
	AUTO 333	Automotive Suspension and Alignment	1	1	2	WOOD 450	Furniture Upholstery	2	1	3	
	RELT 207	Christian Beliefs	3	0	3	TCED 410	Thermodynamics	3	0	3	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 430	Industrial Attachment	2	0	2	
	WOOD 387	Furniture Design and Construction	2	1	3	TCED 455	Research Project	2	0	2	
	WOOD 400	Finish Carpentry	2	1	3						
Total			16	3	19	Total			13	2	15
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (ELECTRONICS TECHNOLOGY AND DRAFTING)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	2	0	2	
	ELCT 111	Fundamentals of Electronics	2	1	3	COMP 130	Software Applications In Technology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED 230	Industrial Safety	2	0	2	
	MECT 122	Technical Drawing I - Sketching	1	1	2	AUTO 115	Power Technology	2	1	3	
	TCED 111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM 111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	5	21
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM1 51	Engineering Chemistry	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	ELCT 211	Analog Electronics II	2	1	3	MECT 233	Construction Drawing	2	1	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	MECT 234	Assembly Drawings	2	1	3	
	PHYS 155	General Physics	2	1	3	TCED 235	Philosophy of Technical Education	2	0	2	
	Total			16	4	20	Total			16	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	MECT 235	Computer Aided Drawing II	2	1	3	COMP 325	Networking and Cyber Security	1	1	2	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	ELCT 391	Alternative Energy Sources	2	0	2	
	SDEV 211	Software Engineering Principles	1	1	2	MECT 245	Interior Design Drawing	2	1	3	
	TCEM 211	Engineering Mathematics III	3	0	3						
	Total			15	3	18	Total			14	2
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	CMMT 320	Analog and Digital Filters	2	1	3	
	COMP 321	Digital Integrated Circuits	2	1	3	MECT 410	3D Modelling and Printing	2	1	3	
	COMP 342	Embedded Circuits and Systems	2	1	3	TCED 410	Thermodynamics	3	0	3	
	MECT 400	Visualization and Rendering	2	1	3	TCED 430	Industrial Attachment	2	0	2	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 455	Research Project	2	0	2	
Total			14	3	17	Total			13	2	15
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (ELECTRONICS TECHNOLOGY AND WELDING)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	2	0	2	
	ELCT 111	Fundamentals of Electronics	2	1	3	COMP 130	Software Applications In Technology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED 230	Industrial Safety	2	0	2	
	MECT 122	Technical Drawing I - Sketching	1	1	2	AUTO 115	Power Technology	2	1	3	
	TCED 111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM 111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
Total			16	3	19	Total			16	5	21
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM151	Engineering Chemistry	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	ELCT 211	Analog Electronics II	2	1	3	MTLS 232	Material Selection and Fabrication	2	1	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	TCED235	Philosophy of Technical Education	2	0	2	
	PHYS 155	General Physics	2	1	3						
	Total			16	4	20	Total			14	2
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	RELB 220	Life and Teachings of Jesus Christ	2	0	2	COMP 325	Networking and Cyber Security	1	1	2	
	SDEV 211	Software Engineering Principles	1	1	2	MTLS 344	Gas Welding and Brazing	2	1	3	
	TCEM 211	Engineering Mathematics III	3	0	3	MTLS 360	Soldering and Brazing	2	1	3	
	Total			13	2	15	Total			14	3
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	CMMT 320	Analog and Digital Filters	2	1	3	
	COMP 321	Digital Integrated Circuits	2	1	3	MTLS 460	Occupational Opportunities in Welding	2	0	2	
	COMP 342	Embedded Circuits and Systems	2	1	3	TCED 410	Thermodynamics	3	0	3	
	MTLS 440	Arc Welding	2	1	3	TCED 430	Industrial Attachment	2	0	2	
	MTLS 450	MIG/TIG/PLASMA Welding	2	2	4	TCED 455	Research Project	2	0	2	
	TCED 325	Technology Entrepreneurship	2	0	2						
	Total			16	5	21	Total			13	1
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (ELECTRONICS TECHNOLOGY AND WOOD)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	2	0	2	
	ELCT 111	Fundamentals of Electronics	2	1	3	COMP 130	Software Applications in Technology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED 230	Industrial Safety	2	0	2	
	MECT 122	Technical Drawing I - Sketching	1	1	2	AUTO 115	Power Technology	2	1	3	
	TCED 111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM 111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
	Total			16	3	19	Total			16	5
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM 151	Engineering Chemistry	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	ELCT 211	Analog Electronics II	2	1	3	TCED 235	Philosophy of Technical Education	2	0	2	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	WOOD 170	Carpentry I	2	1	3	
	PHYS 155	General Physics	2	1	3	WOOD 280	Carpentry II	2	1	3	
	Total			16	4	20	Total			16	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	COMP 325	Networking and Cyber Security	1	1	2	
	SDEV 211	Software Engineering Principles	1	1	2	WOOD 300	Carpentry III	2	1	3	
	TCEM 211	Engineering Mathematics III	3	0	3						
	Total			13	2	15	Total			12	2
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3						
	COMP 321	Digital Integrated Circuits	2	1	3	CMMT 320	Analog and Digital Filters	2	1	3	
	COMP 342	Embedded Circuits and Systems	2	1	3	TCED 410	Thermodynamics	3	0	3	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 430	Industrial Attachment	2	0	2	
	WOOD 387	Furniture Design and Construction	2	1	3	TCED 455	Research Project	2	0	2	
	WOOD 400	Finish Carpentry	2	1	3	WOOD 450	Furniture Upholstery	2	1	3	
Total			16	4	20	Total			13	2	15
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (ELECTRICAL TECHNOLOGY AND DRAFTING)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	2	0	2	
	ELCT 111	Fundamentals of Electronics	2	1	3	COMP 130	Software Applications in Technology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED 230	Industrial Safety	2	0	2	
	MECT 122	Technical Drawing I - Sketching	1	1	2	AUTO 115	Power Technology	2	1	3	
	TCED 111	Engineering Materials	1	1	2	MECT 222	Technical Drawing II - Drafting	2	1	3	
	TCEM 111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
	Total			16	3	19	Total			16	5
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM 151	Engineering Chemistry	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	ELCT 211	Analog Electronics II	2	1	3	MECT 233	Construction Drawing	2	1	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	MECT 234	Assembly Drawings	2	1	3	
	PHYS 155	General Physics	2	1	3	TCED235	Philosophy of Technical Education	2	0	2	
	Total			16	4	20	Total			16	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	MECT 235	Computer Aided Drawing II	2	1	3	INEL 313	Electrical Installation and Costing	1	1	2	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	MECT 245	Interior Design Drawing	2	1	3	
	TCEM 211	Engineering Mathematics III	3	0	3						
Total			14	2	16	Total			12	2	14
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	INEL 420	Power Systems	2	1	3	
	INEL 331	Control I	2	1	3	INEL 430	PV Systems Installation	2	1	3	
	INEL 410	Industrial Electronic Devices and Circuits	2	1	3	MECT 410	3D Modelling and Printing	2	1	3	
	MECT 400	Visualization and Rendering	2	1	3	TCED 410	Thermodynamics	3	0	3	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 430	Industrial Attachment	2	0	2	
						TCED 455	Research Project	2	0	2	
Total			14	3	17	Total			15	3	18
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (ELECTRICAL TECHNOLOGY AND WELDING)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	2	0	2	
	ELCT 111	Fundamentals of Electronics	2	1	3	COMP 130	Software Applications in Technology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED 230	Industrial Safety	2	0	2	
	MECT 122	Technical Drawing I - Sketching	1	1	2	AUTO 115	Power Technology	2	1	3	
	TCED 111	Engineering Materials	1	1	2	MECT222	Technical Drawing II - Drafting	2	1	3	
	TCEM 111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
	Total			16	3	19	Total			16	5
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM151	Engineering Chemistry	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	ELCT 211	Analog Electronics II	2	1	3	MTLS 232	Material Selection and Fabrication	2	1	3	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	TCED235	Philosophy of Technical Education	2	0	2	
	PHYS 155	General Physics	2	1	3						
	Total			16	4	20	Total			14	2
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	INEL 313	Electrical Installation and Costing	1	1	2	
	TCEM 211	Engineering Mathematics III	3	0	3	MTLS 344	Gas Welding and Brazing	2	1	3	
						MTLS 360	Soldering and Brazing	2	1	3	
	Total			12	1	13	Total			14	3
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	INEL 420	Power Systems	2	1	3	
	INEL 331	Control I	2	1	3	INEL 430	PV Systems Installation	2	1	3	
	INEL 410	Industrial Electronic Devices and Circuits	2	1	3	MTLS 460	Occupational Opportunities in Welding	2	0	2	
	MTLS 440	Arc Welding	2	1	3	TCED 410	Thermodynamics	3	0	3	
	MTLS 450	MIG/TIG/PLASMA Welding	2	2	4	TCED 430	Industrial Attachment	2	0	2	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 455	Research Project	2	0	2	
Total			16	5	21	Total			15	2	17
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

Bachelor of Science in TECHNOLOGY EDUCATION (ELECTRICAL TECHNOLOGY AND WOOD)

Four-Year Course Plan

Key: T - Theory; L - Lab; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDPC 106	Educational Psychology	3	0	3	ELCT 123	Analog Electronics I	2	1	3	
	EDFO 130	History of Education	2	0	2	EDTE 180	Health Education and Life Skills	2	0	2	
	ELCT 111	Fundamentals of Electronics	2	1	3	COMP 130	Software Applications in Technology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	TCEM 122	Engineering Mathematics II	3	0	3	
	ENGL106	Speech Communication	1	0	1	TCED 230	Industrial Safety	2	0	2	
	MECT 122	Technical Drawing I - Sketching	1	1	2	AUTO 115	Power Technology	2	1	3	
	TCED 111	Engineering Materials	1	1	2	MECT 222	Technical Drawing II - Drafting	2	1	3	
	TCEM 111	Engineering Mathematics I	3	0	3	MTLS 122	Welding Technology	1	1	2	
	Total			16	3	19	Total			16	5
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 210	Curriculum Development	3	0	3	EDTE 255	Principles and Methods of Teaching	3	0	3	
	EDPC 238	Human Growth and Development	3	0	3	EDFO 280	Sociology and Comparative Education	3	0	3	
	EDPC 244	Educational Guidance and Counseling	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	CHEM151	Engineering Chemistry	2	1	3	MECT 232	Computer Aided Drawing	1	1	2	
	ELCT 211	Analog Electronics II	2	1	3	TCED235	Philosophy of Technical Education	2	0	2	
	MTLS 270	Workshop Technology and Maintenance	2	1	3	WOOD 170	Carpentry I	2	1	3	
	PHYS 155	General Physics	2	1	3	WOOD 280	Carpentry II	2	1	3	
	Total			16	4	20	Total			16	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDTE 301	Educational Communication and Technology	3	0	3	EDTM 328	Special Methods in Teaching STEM	3	0	3	
	EDTE 326	Educational Measurement and Evaluation	3	0	3	EDTM	Second Teaching Area Methods Course	3	0	3	
	INEL 233	Electrical Machines and Drives	1	1	2	EDTE 333	Research Method in Education	3	0	3	
	RELB 220	Life and Teachings Of Jesus Christ	2	0	2	INEL 313	Electrical Installation and Costing	1	1	2	
	TCEM 211	Engineering Mathematics III	3	0	3	WOOD 300	Carpentry III	2	1	3	
	Total			12	1	13	Total			12	2
INTER SEMESTER					EDTE 399	TEACHING PRACTICE	6	0	6		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	EDFO 400	Educational Policy and Management	3	0	3	EDFO 410	Environmental Education	2	0	2	
	EDFO 401	Planning and Economics of Education	3	0	3	INEL 420	Power Systems	2	1	3	
	INEL 331	Control I	2	1	3	INEL 430	PV Systems Installation	2	1	3	
	INEL 410	Industrial Electronic Devices and Circuits	2	1	3	MTLS 460	Occupational Opportunities in Welding	2	0	2	
	MTLS 440	Arc Welding	2	1	3	TCED 410	Thermodynamics	3	0	3	
	MTLS 450	MIG/TIG/PLASMA Welding	2	2	4	TCED 430	Industrial Attachment	2	0	2	
	TCED 325	Technology Entrepreneurship	2	0	2	TCED 455	Research Project	2	0	2	
Total			16	5	21	Total			15	2	17
MAY TO JULY - TCED 430 INDUSTRIAL ATTACHMENT											

COURSE DESCRIPTIONS

AUTOMOTIVE TECHNOLOGY

AUBO 131 Fundamentals of Auto Body Repair 3 Credits

An introduction to the basic theory and repair procedures of automobile body structures. Appropriate welding and hand tool skills are developed on mock-ups, before work is done on damaged cars. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: MTL5 122.*

AUBO 212 Auto Body Refinishing 3 Credits

A study of the fundamentals of refinishing materials, equipment and procedures. Emphasis on surface preparation for spot, panel, overall and custom refinishing. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: AUBO 131.*

AUBO 320 Panel and Major Collision Repair 4 Credits

A study in which the learner develops automotive repair skills like sectioning, panel repair, alignment, fixed and movable glass replacement, preparation for final finish; major repairs, estimating, panel replacement, clipping, and frame straightening, use of heavy equipment, frame alignment within accepted tolerances and standards. Learners gain expertise in these areas, ensuring vehicles are restored safely and efficiently. 3 lectures and 1 three-hour laboratory per week. *Prerequisite: AUBO 212.*

AUBO 330 Motor Vehicle Valuation and Insurance 2 Credits

A course dealing with the comprehensive technical assessment of the vehicle on the following areas; mechanical condition, body and chassis, mechanical testing, pit inspection, body and exterior inspection, electrical and electronic controls, suspension, tyres and rim, and motor vehicle insurance. *Prerequisite: AUBO 320.*

AUTO 100 Personal Auto Care 1 Credit

Stressing the need for proper procedures in routine automobile maintenance. Helping the automobile owner become a wise consumer with emphasis on how to do simple tune-up, maintenance, and minor repairs. Not applicable to an automotive major or minor. 1 lecture hour and 1 three-hour laboratory per week.

AUTO 110 Automobile Driving 1 Credit

This course aims at providing knowledge and skills in automobile driving. Emphasis is given to safe driving habits and an understanding of the Highway Code. 1 lecture hour and 2 hours of practical driving sessions per week. *Prerequisites: Must be 18 years old or above, with passport or National Identification/ Alien card.*

AUTO 115 Power Technology 3 Credits

A study of basic power sources with regards to internal combustion principles and energy analysis as applies to small gasoline engines. (Variety of small engines, 4 stroke) 2 lecture hours and 1 three-hour laboratory per week.

AUTO 223 Automotive Internal Combustion Engines 3 Credits

This course covers internal combustion engines, emphasizing theory, design, types, and operation of components. It includes trouble diagnosis, repair procedures, engine cycles, fuel systems, ignition, performance, emissions, and

alternative power sources. Practical aspects like maintenance, troubleshooting, and tuning are also addressed. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: AUTO 115.*

AUTO 233 Autotronic Systems 3 Credits

A course that offers an in-depth study of automotive electronic systems, including engine management, transmission control, and vehicle dynamics. Topics cover electronic components, sensors, actuators, and onboard diagnostics. Emphasis is on system integration, troubleshooting, and repair techniques. Learners gain practical skills in diagnosing and servicing autotronic systems, ensuring optimal vehicle performance and reliability in modern automotive technology. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisites: ELCT 111 and AUTO 223.*

AUTO 235 Automotive Electronic Diagnosis and Programming 3 Credits

This course covers diagnosis and programming of automotive electronic systems using modern OBD machines and tools, a broad knowhow of how the engine control module operates. Learners interpret diagnostic trouble codes, perform system scans, and programme electronic modules for optimal vehicle performance. Emphasis is on practical skills development, troubleshooting techniques, and utilizing advanced diagnostic equipment to address complex electronic issues in modern vehicles. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisites: ELCT 111 and AUTO 233.*

AUTO 311 Automotive Air Conditioning 2 Credits

This course covers heating ventilation and air conditioning (HVAC) system fundamentals, including refrigeration principles, diagnosis, and repair. Learners develop skills on maintenance procedures, refrigerant handling, and compliance. Emphasis is on troubleshooting, customer service, and emerging automotive climate control trends. Upon completion, learners can proficiently maintain and repair automotive air conditioning systems, focusing on compressor, dryer, evaporator, condenser, controls, and retrofitting. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: AUTO 223 and AUTO 233.*

AUTO 332 Drive Trains Systems 2 Credits

A course on power transmission systems, including manual, automatic, and hybrid drive trains. Topics include gear ratios, differential operation, torque converters, and electronic control systems. Emphasis is on drive train components and their integration for efficient vehicle operation. 1 lecture and 1 three-hour laboratory per week. *Prerequisite: AUTO 223.*

AUTO 333 Automotive Suspension and Alignment 2 Credits

This course provides an in-depth examination of vehicle suspension components, including springs, shocks, and steering linkages. The course covers alignment procedures, tyre wear analysis, and corrective measures. Emphasis is on diagnosing, repairing, and maintaining suspension systems to ensure safe handling and optimal tyre performance. 1 lecture and 1 three-hour laboratory per week. *Prerequisite: AUTO 332.*

AUTO 342 Automotive Diesel Engines 3 Credits

A study of diesel engine principles that covers engine types, construction, fuel injection, and electronic management systems. Emphasis is on understanding overall engine operation and management for optimal performance in various applications. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: AUTO 223.*

AUTO 422 Engine Performance **3 Credits**

A study that covers fuel systems, metering devices, vacuum and air systems, engine management systems, and computer diagnostics. The course emphasizes understanding and servicing these components for optimal engine performance and efficiency. Learner develop diagnostic techniques and tune-up procedures to maintain and improve vehicle operation. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite:* AUTO 223 and AUTO 235.

AUTO 430 Heavy Commercial Vehicle Systems **3 Credits**

A study of heavy commercial vehicle systems, encompassing cabins, chassis, axles, hitches, power systems, gearing, clutches, boosters, suspensions, and tyres. The course provides comprehensive knowledge of these components, focusing on their function, maintenance, and integration for efficient and safe operation of heavy commercial vehicles. 2 lecture hours and 1 three-hour laboratory. *Prerequisite:* AUTO 342.

AVIATION MANAGEMENT

AVFL 100 Principles of Flight: Aeroplanes (Aerodynamics) **3 Credits**

This course explores aerodynamic principles essential for aircraft design and performance enhancement. It delves into forces affecting lift generation in various flight conditions, such as straight and level flight, turns, and different phases of flight. Topics include atmosphere dynamics, basic aerodynamic theory, subsonic airflow, lift and drag forces, stalling, high-lift devices, airframe contamination, stability, control, flight mechanics, high-speed flight, limitations, windshear, and propellers. It provides a comprehensive understanding of aerodynamics for improved aircraft performance and safety. 2 lectures and 1 three-hour laboratory per week.

AVFL 101 Aircraft General Knowledge (Airframe & Systems) **4 Credits**

This course provides essential knowledge about various aircraft systems, components, and their functions. It covers small aircraft systems such as reciprocating engines, propellers, fuel, electrical, hydraulic, pressurization, pneumatic, flight controls, aircraft structures, weight and balance, and instrument systems. It includes pilot maintenance and an introduction to KCAA requirements for maintenance, inspections, and record-keeping. Topics also include airframes, fuselage, wings, stabilizing surfaces, basic hydraulics, landing gear, aircraft wheels, tyres, brakes, flight control systems, pneumatic systems, pressurization systems, ice and rain protection, emergency equipment, aircraft oxygen equipment, smoke detection, fire detection and protection, and aircraft fuel systems. 3 lectures and 1 three-hour laboratory per week.

AVFL 103 Aircraft Performance and Planning I (Mass & Balance) **3 Credits**

This course introduces the learner to the fundamentals of aircraft mass, balance, and performance. Discovering how varying weights affect flight characteristics and explores take-off and landing techniques on diverse surfaces. The learner is further introduced to mass and balance calculations, and delves into the principles of aircraft performance including take-off, climb, descent, and landing for single and multi-engine classes. Learns essential flight planning and monitoring skills

using air information publications, topographical charts, and fuel policies. Gains proficiency in flight planning procedures for different aircraft types and scenarios, ensuring safe and efficient journeys through comprehensive study and practical applications. 2 lectures and 1 three-hour laboratory per week.

AVFL 110 Human Performance and Limitation I **2 Credits**

The learner will embark on a comprehensive exploration of human performance and limitations in aviation through this course. The course prioritizes flight safety, emphasizing the demands that flying places on a pilot's perception, communication, judgment, and decision-making abilities. The learner will investigate the limitations of humans as manual pilots and study altitude flying, includes topics such as respiration and blood circulation, human information processing, human behavior in the cockpit, flying and health considerations, and threat and error management. 2 lectures per week.

AVFL 111 Air Law I **3 Credits**

In this course, the learner focuses on developing effective airmanship skills while gaining insight into the International Conventions that regulate the aviation industry through various regulations. Topics include International Agreements and Organizations, Airworthiness of Aircraft, Aircraft Nationality and Registration Marks, Flight Crew Licensing, Rules of the Air, Instrument Procedures (Departures, Approach Procedures, Circling Approach, Holding Procedures, Altimeter Setting Procedures), Parallel or Near Parallel Runway Operation, SSR and ACAS, Airspace, Air Traffic Services, Separation, Control of Aircraft, Aeronautical Information Services, Aerodrome Physical Characteristics, Aerodrome Visual Aid Markings and Signs, Aerodrome Lighting, Aerodrome Services and Obstacle Marking, Facilitation, Search and Rescue, Security, and Aircraft Accident and Incident Investigation. 3 lectures per week.

AVFL 120 Meteorology I **2 Credits**

This course equips learners with essential knowledge about rapidly changing weather conditions, crucial for flight safety. Topics include the Atmosphere, Pressure (atmospheric pressure, pressure systems), Temperatures, Humidity, Density (gas laws, factors affecting density, density altitude), Adiabatic process, lapse rate, Wind (definitions, measurement, formation, upper and local winds), Air Masses, Clouds (measurement, formation, classification), Precipitation, Thunderstorms (formation, classification, hazards), wind shear, turbulence, Ice Accretion (airframe, engine icing), visibility (fog), fronts (cold, warm, occluded, stationary), climatology, meteorological information (analysis, forecasting, flight planning). 2 lectures per week.

AVFL 121 Radio Telephony/ Communications Skills **2 Credits**

This course introduces learners to effective communication skills crucial for pilots. It covers radio-telephony basics, transmission techniques, standard phrases, and regulations. Topics include Modes and Types of Communications, Components, Information Processing, Historical Background, Recent Technological Developments, Aviation Techniques, 2-Way Radio Contacts, HF/Base/UHF Radios, Frequency Allocation, Restricted Aeronautical Radio Services, Practical Phraseology, Aerodrome Radio, Radar, General and Emergency Phraseology, and Radio Telephony Licensing according to ICAO Rules. 1 lecture and 1 three-hour laboratory per week.

AVFL 122 Operational Procedures I 2 Credits

This course introduces the learner to the International Civil Aviation Organization (ICAO) Publication Annex 6, focusing on the International Standards and Recommended Practices (SARPS) for obtaining an Air Operator Certificate for International Commercial Air Transport. Topics include General Requirements (definitions, applicability, general), OPS Regulations, Operator Certification and Supervision, Operational Procedures (excluding long-range flight preparation), All-Weather Operations (general, aerodrome operating minima), Instruments and Equipment, Communication and Navigation Equipment, and Aeroplane Maintenance. 2 lectures per week.

AVFL 124 General Navigation I 4 Credits

This course aims to teach learners about navigation computer factors and parameters, including Earth, solar system, time, charts, relative velocity, critical points, and point of no return. It covers topics like Earth, solar system, time, charts, critical points, gridded charts, and more. The course also covers inertial navigation systems, flight management systems, and general navigational problems. 3 lectures and 1 three-hour laboratory per week.

AVFL 155 PPL Flying I (Pre-Flight & Pre-Solo) 2 Credits

The learner is introduced to initial flight lessons, which marks the beginning of private pilot flight training. It covers flight training up to solo flight, emphasizing the need for the learner to have a Pilot Medical Certificate/Student Pilot Certificate from an Aviation Medical Examiner before registering. Phase 1, PPL1-Pre-Flight, requires satisfactory completion of instructor-administered progress checks in all subjects, with instructors reporting to the Chief Ground Instructor (CGI) on any students struggling with academic standards. Phase 2, PPL1-Pre-Solo, involves completing scheduled flight training exercises, demonstrating the ability to perform various tasks such as using checklists, following RTF procedures, taxiing, taking off, flying circuits, approaching, and landing, executing go-arounds, stalling and recovering, and carrying out forced landings in simulated engine failure scenarios at low altitudes. 1 lecture and 1 three-hour laboratory per week.

AVFL 156 Automotive Suspension and Alignment 2 Credits

This phase integrates practical flying skills for the learner's first solo flight and navigation training. Learners will demonstrate proficiency in various aspects, including answering oral exam questions on aircraft operational use, conducting inspections, and fuelling operations. They will execute crosswind take-offs and landings, climbs, descents, and turns within specified limits. Demonstrating good airmanship, they will maintain visual lookout, adhere to RTF procedures, and respect aircraft limits and flight discipline. The focus is on ensuring learners can perform these maneuvers confidently and smoothly, setting a strong foundation for their aviation training. 1 lecture and 1 three-hour laboratory per week. *Prerequisite* AVFL 155.

AVFL 200 Principles of Flight – Aeroplanes II 4 Credits

This course delves into aerodynamic principles crucial for understanding aircraft design and performance enhancement. It covers lift generation forces in various flight conditions like straight and level flight, turns, and high-speed flight, alongside drag types and reduction methods. Topics include lift derivation, parasite and induced drag, forces in level and transonic flight, climbing, descending, turning, stalling, swept wing stalling, spinning, high lift devices, control basics (roll, pitch, yaw,

flutter), stability basics, longitudinal stability, factors affecting stability, directional, lateral, and speed stability, propellers, forces in asymmetric flight, control issues, limitations, gust response, and handling severe weather, icing, and stalling. 3 lectures and 1 three-hour laboratory per week. *Prerequisite* AVFL 100; AVFL 120.

AVFL 201 Aircraft General Knowledge (Power Plant) 4 Credits

This course equips the learner with essential knowledge of aircraft systems and components. It covers small aircraft systems such as reciprocating engines, propellers, prop governors, fuel, electrical, hydraulic, pressurization, pneumatic, flight controls, aircraft structures, weight and balance, and aircraft instrument systems. Additionally, it includes pilot maintenance and an introduction to KCAA requirements for maintenance, inspections, and record-keeping. This course covers power plants, focusing on piston and gas turbine engines. For piston engines, topics include an introduction to piston engines, lubrication, cooling, ignition, fuel systems, mixture control, carburetors, engine icing, fuel injection, performance, power augmentation, and propellers. For gas turbines, it covers an introduction to gas turbines, air inlets, compressors, combustion chambers, turbine assembly, exhaust systems, lubrication, thrust, performance, thrust augmentation, reverse thrust, gearboxes, accessory drives, ignition systems, auxiliary power units, engine starting, fuels, fuel systems, and bleed air. 3 lectures and 1 three-hour laboratory per week. *Prerequisite* AVFL 100.

AVFL 202 Aircraft General Knowledge (Electric & Electronics) 3 Credits

This course provides learners with critical knowledge of various aircraft systems and components, focusing on small aircraft systems like reciprocating engines, propellers, prop governors, fuel, electrical, hydraulic, pressurization, pneumatic, flight controls, and aircraft structures. It also covers electrics and electronics, including DC principles, switches, circuit protection, capacitors, batteries, magnetism, generators, alternators, DC motors, aircraft electrical power systems, bonding, screening, AC principles, alternators, transformers, AC motors, basic computers, semi-conductors, and logic gates. 2 lectures and 1 three-hour laboratory per week. *Prerequisite* AVFL 100.

AVFL 203 Aircraft General Knowledge IV (Instruments) 3 Credits

This course covers aircraft systems, focusing on small aircraft components like engines, propellers, fuel, electrical, hydraulic, pneumatic, and flight control instrumentation. It also includes aircraft structures, weight and balance, instrument systems, and pilot maintenance. Learners will study flight instruments such as airspeed indicators, altimeters, gyroscopes, and autopilot systems. Additionally, the course introduces KCAA maintenance requirements and covers warning systems, flight data recorders, engine instrumentation, and electronic systems. Equips the learner with critical knowledge in the various Aircraft systems, components and their functions. The study of small aircraft systems, including: reciprocating engines, propellers and prop governors; fuel, electrical, hydraulic, pressurization, pneumatic, flight controls, aircraft structures, weight and balance and aircraft instrument systems. Also included will be pilot maintenance and a brief introduction of the KCAA requirements for maintenance, inspections and record keeping. 2 lectures and 1 three-hour laboratory per week. *Prerequisite* AVFL 100.

AVFL 210 Human Performance and Limitation II 3 Credits

This course further highlights the demands flying imposes on a pilot's perception, communication, judgment, and decision-making. It explores Human Information Processing, including the senses, spatial disorientation, and memory. Human behavior concepts, cockpit management, judgment, and decision-making are also discussed, along with flying-related health issues like physiological and mental fitness, incapacitation, fatigue, stress, and anxiety. Threat and Error management - the TEM model and undesired aircraft states, are also covered. 3 lectures per week. *Prerequisite:* AVFL 110.

AVFL 211 Air Law II 5 Credits

This course further addresses various International Conventions that regulate the Aviation Industry. It also covers air traffic services, separation, control, aeronautical information services, and aviation services such as search and rescue, security, and accident investigation. 5 Lectures per week.

AVFL 213 Aircraft Performance and Planning (Aircraft Performance) 3 Credits

The student learns of different scenarios based on the weight of the aircraft, including take-off and landing on different runways, grass, murram, or tarmac surfaces. They learn about aircraft performance, including general principles, take-off, climb and descent, cruise, landing, single engine, multi-engined, and class A. Flight planning and monitoring is covered, including air information publications, topographical charts, fuel policy, nautical air miles, SEP and MEP aircraft, MRJT Simplified and Detailed flight planning, and ATC flight plans. 6 lectures and 1three-hour laboratory per week.

AVFL 220 Meterology II 3 Credits

A further study in weather conditions that the learner should be familiar with. Familiarizes the learner with weather conditions that change quite often, seriously affecting positively or negatively the safety of flying. These include thunderstorms, wind shear, ice accumulation, visibility, fronts, climatology, and meteorological information. Understanding these conditions can help in flight planning and meteorological broadcasts for aviation. 3 lectures per week.

AVFL 222 Operational Procedures II 2 Credits

In this advanced course on operational procedures, students deepen their understanding of the International Civil Aviation Organization (ICAO) Publication Annex 6. This publication sets forth the International Standards and Recommended Practices (SARPS) for obtaining an Air Operator Certificate for International Commercial Air Transport. The course covers topics such as General Requirements (definitions, applicability, general), OPS Regulations, Operator Certification and Supervision, Operational Procedures (excluding long-range flight preparation), All-Weather Operations (general, aerodrome operating minima), Instruments and Equipment, Communication and Navigation Equipment, and Aeroplane Maintenance. 2 Lectures per week. *Prerequisite* AVFL 122.

AVFL 224 General Navigation II 6 Credits

This is a further course that prepares pilots for advanced navigation skills; covering topics such as chart interpretation, atmosphere navigation, flight planning, wind correction, drift calculations, instrument navigation, and electronic navigation systems. Through practical exercises and simulated scenarios, the course equips the learner with the necessary

expertise to navigate confidently and accurately in challenging environments, ensuring safe and efficient flights. 5 lectures and 1 three-hour laboratory per week. *Prerequisite* AVFL 124.

AVFL 230 Morse Code 1 Credit

This course introduces the Morse code alphabet, numbers, punctuation, and commonly-used abbreviations and codes signs. It begins with an introduction to Morse code's origins and historical importance. The course builds knowledge incrementally, starting with dots and dashes, then a single dash and dots, several dots and dashes, and finally a few letters. It also covers abbreviations in radiotelegraphy, numbers, and Q-codes, which replace whole sentences and questions. The course also covers putting together and deciphering QSOs and using punctuation and prosigns. 1 lecture per week.

AVFL 240 CPL Flying Hours I (Basic Instrument Flying) 2 Credits

The student will undergo instrument flight training to Commercial Pilot Licence (CPL) standards, focusing on general handling. They will pass exams and complete all flight training exercises according to Phase completion standards. Progress towards CPL Standards for general handling and basic instrument flying will be assessed by the assigned flight instructor, and any significant lack of progress will be reported to the Chief Flight Instructor. 1 lecture and 1 three-hour laboratory per week. *Prerequisite* AVFL 156.

AVFL 241 CPL Flying Hours II (Night Flying) 2 Credits

The course prepares learners for solo night circuits and consolidates instrument flying and general handling. After completing the ground and passing examinations, students qualify for a Commercial Pilot Licence. They must demonstrate proficiency in night take-offs, circuits, landings, and go-arounds, and know proper procedures in case of aircraft or ground electrical or radio failure. After completing the first night solo flight, students must pass the CPL Flight Test - Night Flying Section, a comprehensive multi-choice written examination. 1 Lecture and 1three-hour laboratory per week. *Prerequisite* AVFL 240.

AVFL 242 CPL Flying Hours III (Commercial Visual Navigation) 1 Credits

The course prepares students for a Commercial Pilot Licence through exams, ground training, and flight exercises. It includes the CPL Flight Test and conversion training on advanced single-engined aircraft. Students develop visual navigation skills, demonstrate proficiency, and complete a satisfactory solo flight. Emphasis is on cross-country flying. The course consists of 1 lecture and 1 three-hour laboratory per week. *Prerequisite* AVFL 241.

AVFL 340 ATPL Flying Hours I (IR) 2 Credits

To expose the student to a heavier, more complex aircraft for training. Familiarization with the cockpit, start up, taxi, take-off, climb, straight and level, descents, turns, stalls. Landings; flapless, short field, go arounds. Emergencies; VMCA Demo, Critical Engine Failure; Engine Fire, Approach and Landing on single engine. Under Carriage Failures, Flap Failure, Radio Failure, Electrical Failure. 1 lecture and 1 three-hour laboratory per week. *Prerequisite* AVFL 242.

AVFL 341 ATPL Flying Hours II (Multi-Engine Rating) 2 Credits

This course continues the student for the Air transport Pilot Rating. Further complex aircraft operations are introduced and

additional experience in cross-county and commercial pilot maneuvers are included. 1 lecture and 1 three-hour laboratory per week. *Prerequisite* AVFL 340.

AVFL 342 ATPL Flying Hours III (Commercial Operations) 1 Credits

This course completes the preparation for taking the KCAA Air Transport Pilot Rating Practical Exam and Commercial Operations. Final refinement of commercial maneuvers, including right seat proficiency is included. 3 Lectures and 1 three-hour laboratory per week. *Prerequisites*: AVFL 341.

AVFL 355 ATPL (Frozen) 1 Credit

The Airline Transport Pilot License (ATPL) Frozen is a milestone for aspiring airline pilots. It certifies completion of rigorous training and exams, allowing pilots to serve as co-pilots (First Officers) in commercial airlines until they gain the required flight experience for the full ATPL. 1 lecture and 1 three-hour laboratory per week. *Prerequisite*: AVFL 242; AVFL 342.

AVFN 300 Aviation Finance 2 Credits

This course aims to teach learners about commercial airline operations, focusing on revenue generation, operational costs, and the impact of business models and operational performance on financial success. It covers topics such as regulation, demand, supply, cost analysis, pricing, revenue management, business models, fleet selection, and acquisition, with a case study of European airlines' full-year financial results. 2 Lectures per week.

AVLG 100 International Language (FRE, ENG, CHI) 4 Credits

This course focuses on language proficiency in six key areas: vocabulary, structure, comprehension, interaction, pronunciation, and fluency. It is divided into three levels: Basic Beginner (1-2), Lower Intermediate (1-3), and Upper Intermediate and Advanced. The course is designed for gradual development of speaking and listening skills, with a focus on sentence building and practice. It is ideal for learners aiming to be proficient in both official ICAO languages, providing an advantage in the Chinese Aviation industry. 4 lecture hours per week.

AVMG 100 Introduction to Aviation Business and Ethics 2 Credits

This course serves as an introduction to the foundational aspects of the aviation industry. Starting with historical insights, it progresses to explore the principles of flight and the economic and technical regulations governing aviation. Learners will delve into topics such as the role of transportation in the economy, various transportation modes, historical developments in air transport, major players in global aviation, international organizations like ICAO and IATA, significant air transport conventions, and the evolution of air transport in Kenya. The economic regulation of aviation, Traditional bilateralism and liberalization; Alliances and airline partnerships. 2 lectures per week.

AVMG 300 Organizational Theory and Behavior 2 Credits

The course enhances learners' knowledge of organizational theory, emphasizing structure, operations, and individual factors like perception, personality, attitudes, motivation, and learning. It covers conflict resolution, negotiation skills, management, and leadership. Technology's role in organizations, structural influences on behavior, and organizational theories like

bureaucracy, classical universal approach, and contingency approach are discussed. The course also explores organizational change and development. 2 lectures per week.

AVMG 301 Airport Management and Planning 2 Credits

This course is about airport planning, management, and operations. It covers topics such as airport development, and commercialization, and the role of airport authorities. The course also covers Kenyan airport classification, economic role, environmental impact, and social responsibilities. It covers financial management, site selection, terminal area and access plans, airport marketing, capacity and delay, and operations. It also covers airport planning and design, including forecasting, capacity and delay, investment, and financing. The course also covers air traffic management, instrument approaches, weather and navigational aids, air terminal requirements, terminal design concepts, airside layout, runway length and width, taxiway gradient and drainage, lighting and signage, and pavement design. 2 lectures per week.

AVMG 302 Air Traffic Management 2 Credits

This course introduces the various aspects of present and future Air Traffic Control systems. The course also delves into future directions and development and has a critical discussion of past proposals and of probable future problem areas. Systems-analysis approach to problems of capacity and safety, surveillance, including the National Airspace System and Automated Radar Terminal Systems, Navigation Subsystem Technology, Aircraft Guidance and Control, Communications, Collision Avoidance systems and Sequencing and Spacing in Terminal Areas. 2 Lectures per week.

AVMG 304 Aviation Risk And Insurance 2 Credits

This course introduces the learners to the concepts of aviation risks, insurance and liability. Aviation risks; Identification, Classification and management of risks; Aviation Insurance; History of aviation insurance, types of insurance, uninsured risks, exculpatory contract, airport insurance; premises liability, hangar Keeper liability, sale of products and services; The role of the law of large numbers; insurable interest; Insurance agreements; The principle conditions of an aviation property and liability risks; The aircraft owners' and manufacturers' liability; Accident insurance on passengers; insurance on lost cargo. 2 Lectures per week.

AVMG 305 Crew Resource Management/Hr Management 3 Credits

The purpose of the course is to enable learners understand the development of crew resources in aviation, primarily to ensure safe operation of aircraft. The development and management of crew resources; Standards and training; Situation awareness; Human performance and its limitations; Human error, reliability and error management; Automation and facilitation skills; Crew coordination concepts; Interpersonal and intrapersonal communication and relationships; Leadership; Accountability; Counselling; Stress management; Delegation of authority; Cockpit safety; Single crew aircraft resource management. Instructional Techniques, CRM - introduction and history, Communication, Threat and error, Stress and workload management, Conflict and behaviors, Sleep, fatigue and vigilance, Information acquisition and processing, Situational awareness, Leadership & team dynamics (including NOTESHS), Standard operating procedures, Decision making, Automation, Startle effect and stress management and Resilience development (and mental flexibility). 3 Lectures per week.

AVMG 307 Aviation Security And Safety (Airport pass) 3 Credits

Provides learners with concepts in aviation safety and security issues and their impact in the industry. The hazards in aviation, Impact of hazards in the industry, Control of hazards; The basic aviation safety programmes; Human factors in aviation; Impact of human factors in the Industry, the management of human factors; Security challenges in the industry; Initiatives to counter the challenges; Annex 17 of ICAO and its applicable security manuals; Security risk assessment and management; Security threats in aviation, management of threats; Crisis management; Hostage negotiations; Emergency planning, response systems and procedures; Search and rescue co-ordination; Techniques of aircraft accident and incident investigations, Case studies. 3 Lectures per week.

AVMG 310 Airline Management and Economics 3 Credits

The purpose of the course is to enable learners understand the airline business in detail, the airline planning process and airplane economic evaluation. The development, structure and business activities of airlines, The economic regulation of aviation, liberalization / deregulation; Passenger and airfreight demand forecasting; The airline planning process; fleet planning and route development; The structure of airline costs; Determinants of airline costs; Fares structure and airline pricing; Airline marketing and product development; role of regional and commuter airlines; External opportunities and threats to the future viability of air carriers; Hub and spoke networks; Global distribution systems (GDS's). 3 Lectures per week.

AVMG 320 Quality Management Systems 2 Credits

The course introduces learners to the fundamental concepts of Quality Management Systems in Aviation. Introduction to Quality Management, Basic concepts of Quality, Historical Background, Quality in Goods, Quality in Services, Measuring Quality, Total Quality Management, Quality Standards and Certification, ISO 9000 Quality Management System, Quality Assurance Concepts, Industry Specific Standards. Quality in Aviation; Quality and Safety, Human Factors, The Quality Manager, Quality Systems in Aviation. Service Performance; The Service Management System, Service Management Techniques, Service Blue Printing. Resource Planning; Resource Allocation Techniques, Resource Allocation in Aviation, Output Maximization, Operations Planning. 2 Lectures per week.

AVMG 330 Civil Aviation Management 2 Credits

This course equips the learner with skills and knowledge in managerial aspects and intricacies with regard to the role of government in aviation industry. Introduction to Civil Aviation Management, Privatization and Commercialization; Airport and Air Navigation Charges, Airport Privatization and Commercialization, Privatizing in Stages, Forms of Private Participation, Economic Regulation of Air Transport; International Regulatory Framework, Multilateral Regulation, Bilateral Agreements, Safety; Safety Management Systems, Universal Oversight Audit Programme, IATA Operational Safety Audit, Aviation Security, Aviation Issues and Challenges; Introduction, Environmental Issues, Fuel Prices, Technology, Safety Improvements. 2 Lectures per week.

AVMG 350 Airfreight Operations (Dangerous Goods) 3 Credits

The course introduces the learners to the fundamental operations of Airfreight Operations. Introduction to Air cargo; Development in Air freight Industry; Types of Cargo, Airfreights services; Air

Cargo Agency; Agency Accreditation Procedures and Criteria; Types of cargo Aircraft/Freighters; Devices for Loading Aircraft; Loading Procedures; Bulk Loading Limitations; Challenges faced by Airlines in the Airfreight; Industry Cargo Booking Procedures; Cargo acceptance; Types of Cargo Rates/Charges; Airlines' Quotation; Factors affecting Airfreight Rates; Import and Export Control; Challenges of Air cargo control; Information Systems for Air cargo Industry; Dangerous goods, classification and handling of dangerous goods. 3 Lectures per week.

ELECTRICITY AND ELECTRONICS TECHNOLOGY

CMMT 320 Analog and Digital Filters 3 Credits

Study of electrical filter technology, response, design and application of passive and active filters, effects of component imperfection on filter performance. Digital signal and system description. Difference equations. Discrete Fourier transform. The Z-transforms. Linear time-invariant systems; representation of linear-time-invariant systems described by difference equations. Design and implementation of digital filter. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: ELCT 211.*

CMMT 321 Communication Principles 3 Credits

An introductory course to electronic communication systems involving; noise in communication systems, AM and FM principles, transmitters and receivers, multiplexing and data communication. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: ELCT 211.*

CMMT 333 Digital RF Circuits and Systems 2 Credits

Analog and digital RF circuits for communication including broadcast TV and radio, mobile and cellular radio, transmitters and receivers, mixers, oscillators, modulators, AGC, gain distribution and IF amplifiers. Other applications of RF e.g. medicine, imaging, RFID, heating astronomy and optoelectronics spectrum management are discussed. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: CMMT 321.*

CMMT 342 TV and Video Broadcasting Systems 2 Credits

This course explores TV and video broadcasting systems, covering technology, production processes, and industry standards. Learners learn about signal transmission, content creation, editing techniques, and distribution methods. Emphasis is placed on understanding the impact of digital advancements on broadcasting platforms and audience engagement. The learners explore the various display units and their impact on the user visual experience. Enhanced understanding onto the various toolset used both hardware and software aspects and their intergration on different situations. 1 lecture hour and 1 three-hour lab. *Prerequisite: ELCT 211; Senior status.*

COEM 411 Video Production 2 Credits

Study on digital sound recording, video capturing, editing and production. It includes radio programming, broadcast operations, lighting technology, and color adjustment using digital imaging software. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: CMMT 332.*

CMMT 412 Telecom and Packet Networks 3 Credits

This course covers telecom, data communication and networks as used in telecommunication. Addresses circuit switching vs circuit switching, and the emergence of VoIP. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: CMMT 321.*

CMMT 423 Mobile and Satellite Communications

3 Credits

This course covers satellite and mobile communications as applied in electronic communications. Fiber optic communication is covered, including link budgets for both Fiber optics and satellite. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: CMMT 321.*

COMP 130 Software Applications in Technology

3 Credits

This course is aimed at introducing computing worlds to all technology Department majors. It encompasses basic computer practical exercises like Document creation (Word), Data management (Excel), Slide and poster creation (PowerPoint) and other application software. Operating System installations, management and troubleshooting is also elaborated. Basic computer maintenance practices and hardware configurations are done practically. On a higher level students get to learn how to use Google Docs, Google sheets, Google forms and Canvas tools. 2 lecture hours and 1 three-hour laboratory per week.

COMP 321 Digital Integrated Circuits

3 Credits

Study on digital integrated circuits including characteristics of logic gates, families and application of IC gates, clocks, counters, registers, displays, memories, microcontrollers and microprocessors. Laboratory emphasizes application of devices commonly used in electronics. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisites: ELCT 123 and TCEM 122.*

COMP342 Embedded Circuits and Systems

3 Credits

This course delves into current technological trends, forming a foundation for the developments in these systems. It covers Microcontrollers, Microprocessors, and IoT, emphasizing practical experience and programming. Students explore chipset applications, programming languages, and real-time system development. IoT concepts deepen understanding of monitoring systems, sensors, and actuation. Developing automated solutions to routine challenges is a key focus. The course includes 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: COMP 321.*

COMP 335 Networking & Cyber Security

2 Credits

The course introduces the student to internet protocols; OSI & TCP/IP, IP configurations and addressing, Switches, Routers and their installations, Sub-netting and Cloud. Network security as a topic carries numerous defined discussions; Port management, network traffic, IP addressing, Mac address security, model (OSI & TCP/IP) security vulnerabilities and the mitigation aspects. Through deep guidance, tools such as Wireshark, TCP Dump and Cisco Packet Tracer come in handy. Use of Kali Linux and Virtualization concept is another dynamic that anchors the students understanding on cyber security practices and loop holes. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: COMP 342.*

COMP336 Web Development and Management

2 Credits

This course on web development and management is essential for modern institutions as learners apply the principles and practices of creating dynamic, interactive websites. Topics include front-end technologies (HTML, CSS, JavaScript), back-end development (Python, PHP, Node.js), database management (SQL, MongoDB), web hosting, and server management. Emphasis is placed on practical skills, with hands-on projects using popular development tools and frameworks. Additionally, students will explore web security, performance optimization, and responsive design. By the end of the course, students will have the knowledge

and skills to create and manage professional websites for various purposes. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: SDEV333.*

ELCT 100 Basic Electronics Maintenance

1 Credit

This is a course in basic maintenance of electronic equipment and computers. The course covers principles of basic electronic circuits, electronic devices and maintenance of electronic equipment and computers. 1 lecture hour and 1 three-hour laboratory per week. Credits earned in this course do not count for electronics majors and minors.

ELCT 102 Technology for Pastors

1 Credit

An introduction to and practical application of various technological devices and software related to the work of a pastor. The topics include: sound system repairs and operation, lighting systems, multimedia systems, software for word processing, power point presentations, electronic drawing, spread sheets, database and theological software tools. 1 lecture hour.

ELCT 111 Fundamentals of Electronics

3 Credits

Study of the fundamentals of electronics engineering technology: including Ohm's, Kirchhoff's laws, series and parallel DC, AC resistive, capacitive and inductive circuits. Circuit analysis techniques of DC/AC circuits, with a study of RLC circuits and their applications. Laboratory work emphasizes the use of electronic test equipment to determine various parameters: current, resistance, capacitance, inductance, etc. 2 lecture hours and 1 three-hour laboratory per week.

ELCT 123 Analog Electronics I

3 Credits

Introduction to solid-state devices including diodes, BJTs, JFETs, MOSFETs and other special semiconductor devices. Emphasis in design and application of these devices, transistor biasing schemes, amplifier configurations and frequency response. 2 lecture hours and 1 three-hour laboratory per week. *Co-requisite to ELCT 111.*

ELCT 211 Analog Electronics II

3 Credits

Study of basic power, differential and operational amplifier circuits, electronic circuits such as regulated power supply, switching power supplies, filter circuits, oscillators, resonant circuits, mixers etc. Special emphasis is placed on the use of the operational amplifier and various applications as used in electronic circuits. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: ELCT 123.*

ELCT 332 Product Development and Design

2 Credits

Individualized study in the techniques of electronics fabrication, including chassis construction, printed circuit board construction, and electrical packaging. The practical application of fabrication and construction techniques is demonstrated by the student building an electronic project. Emphasis is placed on layout, testing, and finishing the selected project. 1 lecture and 1 three-hour laboratory per week. *Prerequisites: COMP 321, ELCT 211 and MECT 122.*

ELCT 391 Alternative Energy Sources

2 Credits

This course provides education and practical training in renewable energy and related topics with emphasis on electricity generation and its utilization especially in rural areas. Solar power, wind power, water power, biomass and their rural applications will be covered. 2 lecture hours.

INEL 222 Instrumentation and Measurements 2 Credits

This course is about electronic instruments and how to carry out measurements using them. It addresses the concepts and principles of measurement, focusing on the need to be knowledgeable and adept in types of instruments available and the variables they measure, emphasis on the different transducers used and their applications. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisites: ELCT 211.*

INEL 233 Electrical Machines and Drives 2 Credits

This course delves into electromagnetism basics, covering transformers (types, construction, operation, and equivalent circuits), DC and AC machines. Topics include machine types, construction, performance, motor/generator characteristics, starting and braking methods, speed control, and applications. Special machines like stepper motors are also explored. Additionally, a component on electrical machine drives is included, focusing on control strategies and applications. 1 lecture hour and 1 three-hour laboratory per week.

INEL 313 Electrical Installation and Costing 2 Credits

Electrical practices including code requirements (IEE), Kenyan regulations and standards, design and layout of electrical circuits, wiring methods, and commercial applications. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: INEL 233.*

INEL 331 Control I 3 Credits

An introduction to linear control and basic principles of control system modelling, system response, Laplace transforms, dynamic system models, block diagram models, steady-state errors and stability. Lab exercises make use of MATLAB. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisites: TCEM 122 and INEL 233.*

INEL 412 Control II 3 Credits

This course covers root locus analysis, frequency response, design and analysis of digital controllers and observers, z-transforms, discrete control representations. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: INEL 331.*

INEL 410 Industrial Electronic Devices and Circuits 2 Credits

Introduction to power electronic devices: power diodes, power transistors, MOSFETs, Thyristor family IGBTs and modern power devices. Single and three phase power conversion and applications; using switching AC-DC converters, AC-AC converters, DC-DC converters and inverters. DC and AC machine drives. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: INEL 331.*

INEL 420 Power Systems 3 Credits

The course familiarizes the learner with the economics of power generation, generating machinery, excitation systems, auxiliary supplies, overhead lines, underground cables, and power system layout and control. It includes 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: INEL 412.*

INEL 423 Programmable Logic Controllers 3 Credits

The course covers concepts and applications of PLC using ladder logic and relay diagrams. The contents are logic operations, the processor unit and memory, programming tools, I/O system, PLC languages, ladder logic programming and applications, communications, sizing and selection of PLCs installation and diagnosis. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: INEL 331.*

INEL 430 PV Systems Installation 3 Credits

The student learns about the fundamentals of PV system design, installation, and testing, including solar panel technologies, system components, wiring techniques, and safety procedures. Practical experience in installing and troubleshooting PV systems. The learner is exposed to the various electrical protection mechanisms, system testing for compliance and performance assessment and cable sizing for efficient PV based systems designs. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: INEL313.*

SDEV 211 Software Engineering Principles 3 Credits

The first course in software engineering introduces principles of modern software design including the software process, system engineering, requirements engineering, analysis and design models, architectural design, component level design, user interface and testing strategies. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: COMP 130.*

SDEV 222 Object Oriented Analysis and Design 3 Credits

The course covers software analysis and design methods, requirements analysis and modelling, object interaction, specifying operations and control, system architecture and design, patterns, human-computer interface, designing boundary classes and data management design. UML case tools are used in the design. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: SDEV 211.*

SDEV 333 Object Oriented Programming and Implementations 3 Credits

The course familiarizes the learner with the current divergence of Object Oriented Programming languages and their numerous frameworks. Programming languages such as Python, Java, Swift and JavaScript have this OOP aspects as the core, with deep understanding on the UML framework, Flowcharts and Pseudo-code. The course challenges the learner to explore beyond and make a project based on real problems and scenarios. This inculcates critical thinking skills and abstract development to modelling solutions. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: SDEV 222.*

DRAFTING TECHNOLOGY**MECT 122 Technical Drawing - Sketching 2 Credits**

This comprehensive course focuses on technical drawing, with a special emphasis on sketching. Students will learn fundamental drawing techniques, including line work, shading, and perspective. The course covers topics such as isometric and orthographic projections, dimensioning, and geometric construction. Emphasis is placed on developing sketching skills for conceptual design and communication. Through hands-on exercises and projects, students will gain the ability to create accurate and detailed technical drawings for engineering, architecture, and design applications. 1 lecture hour and 1 three-hour laboratory per week.

MECT131 Technical Drawing 3 Credits

Technical drawing for fashion design. This course deals with the technical aspects of fashion design as applied to fashion sketching, elements of design, lines, fashion figures, pattern drafting, garment tech packs, fashion portfolios, fashion accessories, as well as specification sheets. 2 lecture hours and 1 three-hour laboratory per week.

MECT 222 Technical Drawing - Drafting 2 Credits
The second course on technical drawing with a primary focus on drafting techniques. Learners master fundamental drawing skills, including fine line work, shading, and perspective. The curriculum covers further topics in isometric and orthographic projections, dimensioning, and geometric construction, with an emphasis on developing drafting proficiency. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: MECT 122.*

MECT232 Computer Aided Drawing 2 Credits
This course focuses on utilizing SolidWorks, ArchiCAD, AutoCAD, and other proprietary software for creating virtual drawings. Learners are introduced to the fundamental principles of computer-aided design and develop proficiency in using these software tools. The course covers topics such as 2D drafting, 3D modeling, rendering, and visualization. Emphasis is placed on practical application, with hands-on projects that simulate real-world design challenges. By the end of the course, students will have the skills and knowledge to create detailed and accurate virtual drawings for a variety of industries, including engineering, architecture, and product design. 1 lecture hour and 1 three-hour laboratory per week. *Prerequisite: MECT 122 or MECT 131.*

MECT 233 Construction Drawing 3 Credits
This course covers the interrelationship between drawings and building construction, such drawings as Electrical layouts, plumbing layouts, Heating and Ventilating layouts, fire protection among others. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: MECT 232.*

MECT 234 Assembly Drawings 3 Credits
This course focuses on creating detailed drawings of machinery, systems, and subsystems, illustrating their operational configuration. Drawings emphasize the interrelationships between components, incorporating exploded views and Bills of Quantities for designed parts. Learners will develop the skills necessary to produce clear and comprehensive technical drawings essential for various engineering applications. 2 lectures and 1 three-hour laboratory session per week. *Prerequisite: MECT 232.*

MECT 235 Computer Aided Drawing II 3 Credits
Further application of computer aided drawing to technical sketching, orthographic projection, drawing layout, drafting and computer aided drawing standards and conventions, dimensioning, sectioning, annotation and basic design principles. Foundation for computer aided drafting/design including file management, drawing commands, editing commands, layering, blocks and wblocks, dimensioning, polylines, hatching and plotting. Advanced computer aided drafting (CAD). Advanced dimensioning and tolerancing techniques, attributes, advanced drawing aids, file management and basic customization. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: MECT 232.*

MECT 245 Interior Design Drawing 3 Credits
Interior design entails comprehensive practice of creating an interior environment that addresses, protects, and responds to human need(s), allowing the learners to explore their creativity by creating eye-catching interior designs through the perfect use of texture, color, scale, proportion, furnishings, lighting, and fixtures when decorating and creating effective utility for home and office space and event settings. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: MECT 235.*

MECT400 Visualization and Rendering 3 Credits
Learners explore various visualization techniques used in different software applications. They discover how graphics capabilities affect machine performance and software operation. Training focuses on tools such as ArchiCAD, AutoCAD, Fusion 360, and Blender. The course will enhance skills in animating objects like gears and other mechanical components, as well as creating cross-sectional views of 3D drawings. The structure includes 1 lecture hour and 2 three-hour laboratory sessions per week. *Prerequisite: MECT 235.*

MECT 410 3D Modelling and Printing 3 Credits
This course introduces students to new technological advancements in modeling, drawing, plotting, and printing using 3D printers. Students learn about slicers, which convert STL files exported from 3D drawing software into G-code format, defining the object's patterns. Essential tools like Ultimaker Cura and Creality Slicer are highlighted. Optimization and configuration of various 3D printers and software brands are covered. The course consists of 1 lecture hour and 2 three-hour laboratory sessions per week. *Prerequisite: MECT 400.*

METALS TECHNOLOGY

MTLS 122 Welding Technology 2 Credits
In this course, learners will be introduced to a variety of welding processes. They will study metals and metal preparation techniques, developing the necessary skills to weld various joints in multiple positions. The course includes 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: TCED 111.*

MTLS 270 Workshop Technology and Maintenance 2 Credits

A comprehensive course that provides the learner with practical knowledge and skills in workshop operations and maintenance. They learn about the fundamentals of workshop technology, including safety procedures, equipment operation, and basic maintenance techniques. The course covers topics such as workshop layout and organization, hand and power tools, machinery operation, and materials handling. Emphasis is placed on hands-on learning through practical exercises and projects to cultivate the skills needed to effectively manage and maintain workshop equipment and facilities. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: MTLS 122.*

MTLS 344 Gas Welding and Brazing 2 Credits
A course designed to equip learners with the essential knowledge and practical skills required for gas welding and brazing processes. They learn about different types of welding and brazing equipment, safety protocols, flame adjustments, and metal preparation techniques. Through hands-on demonstrations and practice sessions, learners will develop proficiency in joining various metals using oxy-acetylene and other gas welding techniques. Additionally, the course covers brazing fundamentals, including flux application, filler metal selection, and joint preparation. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: MTLS 270.*

MTLS 360 Soldering and Brazing 2 Credits
This course focuses on the principles and techniques of joining metals through soldering and brazing processes. Learners delve into the fundamentals of soldering, including solder selection, flux application, and heat control. They will explore brazing methods, such as torch brazing and furnace brazing, emphasis

is on joint preparation and filler metal selection. Through hands-on exercises and projects, learners will develop proficiency in creating strong and durable metal joints and will possess the skills needed to effectively solder and braze various materials in diverse applications. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: MTLS 344.*

MTLS 440 Arc Welding 2 Credits

A course designed to provide students with a thorough understanding and practical experience in arc welding techniques. Students will learn about different types of arc welding processes, including shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). The course covers topics such as electrode selection, welding positions, joint design, and safety procedures. Through hands-on training and welding projects, students will develop the skills and proficiency needed to produce high-quality welds in various materials and thicknesses. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: MTLS 344.*

MTLS 450 MIG/TIG/PLASMA Welding 2 Credits

This course focuses on advanced welding techniques used in various industries. Students will learn the principles and practical applications of Metal Inert Gas (MIG), Tungsten Inert Gas (TIG), and Plasma Arc welding processes. The course covers welding equipment setup, electrode selection, shielding gases, and welding parameters for different materials and thicknesses. Through hands-on practice and welding projects, students will develop proficiency in producing high-quality welds. Emphasis is placed on safety practices, welding positions, and joint designs. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: MTLS 122.*

MTLS 460 Occupational Opportunities in Welding 2 Credits

This course helps the learner explore the diverse career paths available in the welding industry. They learn about the various welding processes, materials, and equipment used in different sectors, including manufacturing, construction, and automotive industries. The course covers welding certifications, job roles, and career advancement opportunities. Through guest lectures, industry visits, and career sessions, learners will gain insights into the skills and qualifications required for successful welding careers. 2 lectures per week. *Prerequisite: MTLS 450.*

GENERAL TECHNOLOGY COURSES

TCED 111 Engineering Materials 2 Credits

This course is designed to study the structures and properties of metals, ceramics, polymers, composites, and electronic materials. It includes mechanical testing and behavior, heat treating, degradation and processing of materials. 1 lecture hour and 1 three-hour laboratory per week.

TCED 211A Practicum in Technology (Automotive) 2 Credits

A course that provides opportunities to the learner to enhance practical skills (communication, managerial, troubleshooting, team building, writing) and knowledge gained in the classroom setting in their respective areas of specialization, through working on several challenging projects/tasks assigned by an instructor (here at UEAB) or industry supervisor at the company/organizational work place. The learner is required to undertake

this practical experience for a total of 480 hours in an accredited company/firm/industry/organization by the department. They will be required to fully participate in the assigned routine tasks and assignments and document all activities taken in a logbook provided. A designated supervisor at the place of work, will sign this logbook. *Prerequisite: AUTO 233.*

TCED 211E Practicum in Technology (Electronics) 2 Credits

A course that provides opportunities to the learner to enhance practical skills (communication, managerial, troubleshooting, team building, writing) and knowledge gained in the classroom setting in their respective areas of specialization, through working on several challenging projects/tasks assigned by an instructor (here at UEAB) or industry supervisor at the company/organizational work place. The learner is required to undertake this practical experience for a total of 480 hours in an accredited company/firm/industry/organization by the department. They will be required to fully participate in the assigned routine tasks and assignments and document all activities taken in a logbook provided. A designated supervisor at the place of work, will sign this logbook. *Prerequisite: ELCT 211, INEL 233.*

TCED 235 Philosophy of Technical Education 2 Credits

A study of philosophy of general education, technical education, and Adventist education systems. Special emphasis will be placed on the philosophy of technical education, and how it relates to general and Christian education. 2 lecture hours per week.

TCED 230 Industrial Safety 2 Credits

Introduction to the total problems of loss in Industry with emphasis on the problem of accident prevention, Safety Management Systems, health hazards, safety analysis and evaluation, safety equipment, accident investigation and control; includes organizational safety policy, identification and appraisal of accident-producing conditions and practices. 2 lecture hours per week.

TCED 231 Safety Education 2 Credits

A basic course in safety and the fundamentals of accident prevention in institutions, laboratories, workshops and industrial application. Accident statistics and resource information, legal responsibilities of teachers, safety requirements in relation to equipment, and environmental conditions are studied. This course is designed to meet the legal obligations placed on teachers for accident prevention and safety precautions. 2 lecture hours per week.

TCED 240 Research Methodology 2 Credits

This course aims to teach students basic research skills, including data collection, analysis, interpretation, application, and presentation. It covers research methods, theories, thesis preparation, and the research process, including problem formulation, objectives, hypothesis, scope, limitations, literature review, methodology, theoretical framework, data collection methods, descriptive and inferential analysis, and interpretation. The course also covers concepts of validity, reliability, significance of findings, degree of research, degree of freedom, and ethical issues in research. 2 lectures per week.

TCED 310 Introduction to Fluid Mechanics 2 Credits

This course is an introduction to the basic phenomena and principles of fluid flow. This includes fluid properties, statics, conversion of mass momentum and energy. Emphasis is on quantitative analysis

of velocities, pipe flow and overflow and viscous fluid flow. 2 lecture hours per week. *Prerequisite: TCEM 122.*

TCED 325 Technology Entrepreneurship 2 Credits

This course is an introduction to the basis of technology entrepreneurship. Identification of entrepreneurial alternatives, opportunities and activities in their various technological areas of study. Emphasis is placed on the theory and practice of the technological work environment on the aspects of operation, management and ownership of the enterprise: the legal issues, access to finance, entrepreneurial opportunities, marketing, the economic environment, ethics and social responsibility. *Prerequisite: TCEM 211.*

TCED 330 Industrial Economy 2 Credits

A study of engineering decision methodology and criteria used to include economic factors in determining the best alternative in the design and selection of equipment structures, methods and processes. 2 lecture hours per week. *Prerequisite: TCEM 211*

TCED 405 Research Methods in Technology 1 Credit

This is a continuation to research introduction, designed to cultivate the necessary competencies for preparing learners to carry out better research in a technological environment and thus enabling them to implement, either an individual or group research, or research project in related area of technology that is not covered in any regular course. This is taken under the direction of a member of the departmental faculty and approved by the Department prior to implementation of the final research project. *Prerequisite: TCED 240.*

TCED 410 Thermodynamics 3 Credits

Scope of classical thermodynamics. The concept of the zeroth law of thermodynamics. Concept of state functions. The first two laws of thermodynamics, boiler, condenser and turbine energy equations. The concept of heat engine, Entropy, Power production, thermodynamic cycles, Heat transfer and Heat exchangers, One and two-dimensional steady state conduction and Insulation. 2 lecture hours and 1 three-hour laboratory per week. *Prerequisite: TCEM 211.*

TCED 425 Fleet Management 2 Credits

A study of fleet management with emphasis on cost control, fleet reliability and efficiency improvement. Emphasis is given to the three components of fleet management, namely: the manager, the driver, and the vehicle itself. 2 lecture hours per week.

TCED 430 Attachment in Industry 2 Credits

A course that further provides opportunities to the learner to enhance practical skills (communication, managerial, troubleshooting, team building, writing) and knowledge gained in the classroom setting in their respective areas of specialization at work in industry. The learner is required to undertake this practical experience for a total of 480 hours (twelve weeks) in an accredited company/firm/industry/organization by the department. They will be required to fully participate in the assigned routine tasks and assignments and document all activities taken in a logbook provided. A designated supervisor at the place of work, will sign this logbook. *Prerequisite: TCED 211 A, E.*

TCED 455 Research Project 2 Credits

A project made during the learner's senior year representing his/her major area of interest and ability. The course involves

title and project proposal defense. The work is to be supervised by assigned departmental faculty. The project should reflect the student's level of competence; incorporate a variety of skills and originality. *Prerequisite: TCED 405.*

TCEM 111 Engineering Mathematics I 3 Credits

An introductory course for engineers covering basic arithmetic, algebra, trigonometric functions, exponential and logarithmic functions, limit and sequences and series. 2 lecture hours per week.

TCEM 122 Engineering Mathematics II 3 Credits

This course covers the following topics; complex numbers, vector algebra, matrix algebra, geometry (solid mensuration), and an introduction to discrete mathematics. 2 lecture hours per week. *Prerequisite: TCEM 111.*

TCEM 211 Engineering Mathematics III 3 Credits

Topics to be covered include; limits of functions, continuity, differential and integral calculus, and an introduction to ordinary differential equations. 2 lecture hours per week. *Prerequisite: TCEM 122.*

TCEM 222 Engineering Mathematics IV 3 Credits

An introduction to Laplace transforms, Fourier series and Z transforms, data handling and elements of probability theory and their applications. 2 lecture hours per week. *Prerequisite: TCEM 211.*

ROBOTICS TECHNOLOGY

COMP 230 Introduction to Computer Systems Engineering 3 Credits

An introduction to the design and operation of digital computers, including information representation, logic design, integrated circuits, register transfer description, hardware description languages, basic computer organization and assembly-level programming. Emphasis on the different areas of study within the fields of electrical and mechanical engineering. Lecture topics and laboratory activities will introduce computer programming, computer simulation exercises, data-acquisition systems, microcontroller systems, communications, robotic and manufacturing applications, material science and dynamics. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: TCEM 111.*

COMP 240 Introduction to C Programming 3 Credits

An introductory course in C programming with an emphasis on structured programming techniques and on utilizing C to solve engineering-related problems. Topics include looping techniques, input and output to files, conditional flow of control, writing and utilizing functions, pointers, 1D and 2D arrays, and data storage. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: COMP 230.*

COMP 400 Computer Vision and Pattern Recognition 3 Credits

A study of the theory and application of sensors and machine vision in modern manufacturing systems. Topics will include position sensors, encoders, interface electronics, force and torque sensors, LAN, PLC, electrical noise, machine vision, lighting techniques, control software, feature extraction techniques and robot guidance. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 320.*

RBTE 200 Control Systems 3 Credits

An introduction to the analysis and design of linear feedback control systems. The course will include a study of system modeling, block diagrams, system response, stability, steady state error, bode plots and root locus. Laboratory exercises will develop a student's ability to design feedback systems and quantify system performance. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisites: TCEM 222 and COMP 230.*

RBTE 220 Robotics I 3 Credits

An introduction and orientation to the field of robotics. Challenges in robotics manufacturing, design and structure of robotic systems, classification of robots, robot geometry, power sources, robotic control systems are covered in this course. The lab part of the course will provide an overview of robotics applications in industry through videos and hands-on experiences. Applied laboratory topics will cover basic programming concepts, structures, and applications using basic robots. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: COMP 230.*

RBTE 230 Machine Learning and Artificial Intelligence 3 Credits

This is an introduction to machine learning (ML) and artificial intelligence (AI). The course covers supervised classification based on artificial neural networks (deep learning), as well as unsupervised learning (clustering), regression, optimization (evolutionary algorithms and other search methods) and reinforcement learning, in addition to design of experiments and evaluation. Through hands-on projects, students gain exposure to the theory behind graph search algorithms, classification, optimization, reinforcement learning, and other topics in artificial intelligence and machine learning and how these are applied to robots. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 220.*

RBTE 240 Statics and Dynamics 3 Credits

A study of theory and application of engineering mechanics principles with emphasis on vector analysis, free body diagrams, properties of areas, and problem solving. This emphasis includes applying principles of equilibrium to particles and rigid bodies. Overview of statics and dynamics applying concepts to particles then to rigid bodies. Topics include two- and three-dimensional force systems; laws of equilibrium; analyses of trusses and frames; friction; relative motion; impulse-momentum principles; work-energy relationships. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisites: TCEM 221, TCEM 111.*

RBTE 300 Mechatronics 3 Credits

This course is an introduction to designing mechatronic systems, which require integration of the mechanical and electrical engineering disciplines within a unified framework. Emphasis on microprocessor controlled electromechanical systems. Interfacing sensors and actuators to computers, electrical and mechanical prototyping, dissection of commercial products. Topics covered include: Low-level interfacing of software with hardware; use of high-level graphical programming tools to implement real-time computation tasks; digital logic; analog interfacing and power amplifiers; measurement and sensing; electromagnetic and optical transducers; control of mechatronic systems. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisites: RBTE 200 and RBTE 220.*

RBTE 320 Robotics II 2 Credits

An introduction to mobile robotics. Students will learn to integrate sensor data in order to control mobile robots to perform useful tasks in both known and unknown environments. Applications could include drones, autonomous vehicles, underwater robots, and warehouse robots. Students will also learn about current trends and areas of research within the field of mobile and service robotics. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 300.*

RBTE 330 Human Machine Interface 2 Credits

An introduction to the operation of human machine interface devices (HMI), hardware configuration, software programming and programmable logic controller network configuration of HMI devices. Emphasis on the operation, set-up and programme of human machine interface (HMI) devices, programming through the use of application software, troubleshooting of HMI devices and systems. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 300.*

RBTE 423 Programmable Logic Controllers 2 Credits

An introduction to programmable logic controllers (PLC) with an emphasis on programming of the controller and operator interface. Standard PLC devices (bits, timers, counters etc.) and controller functions dealing with math, compare, moves, programme flow, analog input, and high-speed counters will be covered in the course. 1 lecture and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 320.*

RBTE 400 Industrial Robots 3 Credits

An introduction to the field of robotics engineering. Topics include classification of robotic manipulators, accuracy and repeatability, wrists and end-effectors, actuators and sensors, homogeneous transformations, Denavit-Hartenberg convention, forward kinematics, inverse kinematics, trajectory planning and an introduction to velocity kinematics. Laboratory exercises will focus on the operation and programming of industrial robots and robotics simulation using industry standard software. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 300.*

RBTE 420 Embedded Robotics 3 Credits

A study and analysis of the components of an automated manufacturing system. Topics include analysis of flow lines, automated assembly systems, materials requirement planning (MRP), production economics. Course work will include applications of manufacturing systems software including factory simulation. Laboratory work will focus on systems integration, advanced programming of industrial robots, and flow line automation. 2 lectures and 1 three-hour of laboratory work per week. *Prerequisite: RBTE 400.*

RBTE 430 Industrial Attachment 2 Credits

A course to enhance practical skills (communication, managerial, troubleshooting, team building, writing) and knowledge gained in the classroom setting in their respective areas of specialization at work in industry. The learner is required to undertake this practical experience for a total of 480 hours in an accredited company/firm/industry/organization by the department. They will be required to fully participate in the assigned routine tasks and assignments and document all activities taken in a logbook provided. A designated supervisor at the place of work, will sign this logbook. *Prerequisite: Approval of the department is considered.*

RBTE 450 Research Project in Robotics 4 Credits

This is an introductory course covering research methods in engineering and engineering-related fields. The student will be involved in faculty-supervised and guided research activities: gathering data and analyzing results. The course provides the student with the skills necessary for successful completion of their design project in robotics. Topics include group dynamics, ethics, timelines, resource allocation, project management and performance evaluations. Skills in oral and written communications, problem conceptualization, creative problem solving and technical presentations are developed. Prerequisites: Senior status and completed a robotics elective.

WOOD TECHNOLOGY

WOOD 100 Woodwork 1 Credit

The study of indigenous trees found in ecological zone of Kenya. Learning the basic hand tools used in the construction of simple furniture. The laboratory involves building a project using only hand tools with an emphasis on furniture construction. 1 lecture and 1 three-hour laboratory alternately.

WOOD 170 Carpentry I 3 Credits

This is a foundational course in woodworking that emphasizes design principles and the proficient use of hand and power tools for projects. Learners will learn essential woodworking techniques, including joinery, shaping, and finishing. Through hands-on projects, they will develop skills in project planning, material selection, and safety procedures. Emphasis is placed on fostering creativity, craftsmanship, and attention to detail. 2 lecture hours and 1 three-hour laboratory per week. Prerequisite: MEET 122,

WOOD 181 Bench Woodworking 2 Credits

A study of wood as it pertains to furniture building with a thorough acquaintance with the proper use and maintenance of hand woodworking tools. The laboratory involves building a project using only hand tools with an emphasis on safe shop practices. 1 lecture hour and 1 three-hour laboratory per week. Prerequisite: MEET 122.

WOOD 280 Carpentry II 3 Credits

This course focuses on intricate design and fine craftsmanship in woodworking. Building upon Carpentry I, learners will explore advanced joinery techniques, intricate detailing, and complex project planning. Emphasis is placed on developing precision and creativity in woodworking projects. Learner refine their skills in using hand tools and power equipment to achieve high-quality finishes. Through challenging projects and guided instruction, they expand their understanding of woodworking principles and techniques. 1 lecture hour and 1 three-hour laboratory per week. Prerequisite: WOOD 170.

WOOD 300 Carpentry III 3 Credits

This is an intensive course designed to refine learners' mastery of advanced woodworking techniques. Building upon the skills acquired in Carpentry II, learners delve deeper into complex joinery, intricate detailing, and fine woodworking methods. The course emphasizes precision and craftsmanship, challenging students to create high-quality furniture and structures. They explore advanced topics such as wood selection, grain matching, and advanced finishing techniques. Through hands-on projects and personalized instruction, learners further develop their ability to create sophisticated and functional woodworking

pieces. 2 lecture hours and 1 three-hour laboratory per week. Prerequisite: WOOD 280.

WOOD 387 Furniture Design and Construction 3 Credits

Furniture, its design, construction and finishing methods. The use of jigs as related to wood-making processes. Projects are chosen in consultation with the instructor. 2 lecture hours and 1 three-hour laboratories per week. Prerequisite: WOOD 300.

WOOD 400 Finish Carpentry 3 Credits

This course focuses on the meticulous craftsmanship required for high-quality finishing work in woodworking projects. Learners refine their skills in precision cutting, fitting, and installation of trim, moldings, cabinetry, and other decorative elements. Emphasis is placed on attention to detail, proper measurement techniques, and advanced joinery methods. Through hands-on projects and guided instruction, learners develop expertise in creating flawless finishes that enhance the aesthetic appeal and functionality of interior spaces. 2 lecture hours and 1 three-hour laboratories per week. Prerequisite: WOOD 300.

WOOD 450 Furniture Upholstery 3 Credits

A course on the art and techniques of upholstering furniture. It is about different types of fabrics, padding materials, and tools used in upholstery. The course covers foundational skills such as stripping old fabric, repairing frames, and applying new fabric. Emphasis is placed on precision cutting, sewing, and finishing techniques to achieve professional results. Through hands-on projects, learners develop the skills and confidence to upholster a variety of furniture pieces creatively. 2 lecture hours and 1 three-hour laboratories per week. Prerequisite: WOOD 300.

COURSE DESCRIPTIONS FOR (NEW COURSES)

ENGL 131 Communication and Writing Skills 2 Credits

An introduction to communication and writing for the airline industry. Purpose of writing. Types of writing. Structuring and packaging of written information. Report writing. Research Skills and Communication. Basic terms in research. Research process. Organization of the research paper. 2 lecture.

EDTM 328 Special Methods in Teaching STEM 3 Credits

This is a dynamic course that focuses on innovative approaches to teaching Science, Technology, Engineering, and Mathematics (STEM) subjects in Secondary, Technical and Vocational Institutes. Through a combination of theory and practical sessions, learners explore effective teaching strategies, curriculum development, and instructional technologies tailored to STEM education. Emphasis will be placed on hands-on learning, project-based learning, and real-world applications to enhance student engagement and comprehension. The course will also cover assessment techniques and classroom management strategies specific to STEM subjects. Learners will be equipped with the knowledge and skills to deliver engaging and effective STEM lessons in secondary and vocational settings.

AVFL 140 Foundations of Flight Operations I 2 Credits

This course provides a comprehensive introduction to the fundamental principles and practices of flight operations within the aviation industry. Emphasizing the role of flight dispatch, students will explore critical components such as flight planning,

DEPARTMENT OF BIOLOGICAL SCIENCES AND AGRICULTURE

FACULTY

Gracelyn, F., PhD. Head of Department
Antony O., PhD
Francis, R., PhD
Kemboi, W., MSc., PhD in progress
Kemboi, B., MSc., PhD in progress
Kirui, J., MSc., PhD in progress
Mutai P, MSc. PhD (Curriculum Leader)
Moracha, H., MSc., PhD in Progress
Ngalo, Susan MBA., PhD In Progress
Ojunga, M., MPhil., PhD in progress
Harrison, O., MSc

Teaching Assistants

Chemis, L., BSc., M.Sc., in Progress
Murrey, E., BSc., M.Sc., in Progress
Emmanuel, T., BSc
Marriam, J., BSc.

Email: hod_biology@ueab.ac.ke

PHILOSOPHY

The Department of Biological Sciences and Agriculture operates on the UEAB worldview, which holds that God is the Creator and Sustainer of life and the natural world and is the source of true knowledge. The entrance of sin caused man's alienation from God; therefore, as intelligent stewards, human beings are the custodians of the earth and its environment. The department aims to enhance human's responsibility to understand life, its unity, diversity and make positive contribution in the areas of resource utilization and conservation, food production, poverty alleviation, and environmentally sustainable development as God's instituted activity. The knowledge and skills acquired to be oriented towards development of man's spiritual and physical powers.

MISSION

The mission of the Department of Biological Sciences and Agriculture is to train students in understanding life and its interactions at all levels from biomolecules to the biosphere, and promote production of food, business, and employment in a sustainably managed natural environment.

VISION

The Department of Biological Sciences and Agriculture envisions that irrespective of whether men and women take only a single course or complete a certificate or a degree, they will become knowledgeable and globally equipped professionals endowed with moral virtues.

DEGREES OFFERED IN THE DEPARTMENT

1. Master of Science in Biology
2. Bachelor of Science in Agribusiness
3. Bachelor of Science in Agriculture
4. Bachelor of Science in Agriculture Technology
5. Bachelor of Science in Agriculture
 - a. Animal Science Option
 - b. Crop and Soil Science Option
 - c. Horticultural Science Option
6. Bachelor of Science in Biology
7. Bachelor of Science in Biomedical Science
8. Bachelor of Science in Biotechnology

9. Bachelor of Science in Environmental Conservation
10. Minor in Agriculture
11. Minor in Biology

AGRICULTURE OBJECTIVES

The programs in agriculture strive to implement the following objectives:

1. General Objectives

- a. To inculcate in the students' sound knowledge of Agricultural Sciences and natural resource management.
- b. To prepare students to become competent skilled agricultural managers or entrepreneurs in private and public service.
- c. To equip students with moral aptitudes for environmental conservation, natural resource utilization, and poverty alleviation.
- d. To prepare students for advanced studies, research and career development.

2. Specific Objectives

- a. To equip students with agricultural research skills and their practice in society.
- b. To prepare students for teaching, research, career development and advanced studies.
- c. To prepare students for careers in food production, plantation management, floriculture industry and Agricultural development programs with Non-Governmental Organizations (NGOs), International Organizations and other Agri-business sectors.
- d. To prepare agricultural graduates capable of providing policy guidelines on the roles and limitations of agricultural bio systems and their management in national development.

EXPECTED LEARNING OUTCOMES FROM THE ENTIRE AGRICULTURE PROGRAM

A graduate of Bachelor of Science in agriculture and related courses should be able to:

1. Define the term agriculture.
2. Name and explain different types of Agriculture;
3. Explain stages of Agricultural development in human history;
4. Analyse the contribution of Agriculture to the social, political and Economic stability of human society;
5. Explain the role of Agriculture in community, national and global Economic development;
6. Discuss the evolution of Agricultural systems and technology in the development of human society;
7. Identify ecological zones suitable for specific types of Agriculture activities;
8. Promote and market Agricultural Productions;
9. Prepare and store animal feeds for different seasons of the year;
10. Experiment on ways to improve Agricultural sectors of various human society;
11. Carry out scientific research to solve Agricultural problems and improve on Agricultural Production;
12. Control pests using natural and commercial insecticides;
13. Design and construct irrigation schemes for crop Production;
14. Diagnose and treat diseases that attack animals, birds and crops;

15. Devise strategies for water and soil management;
16. Carry out scientific and social research aimed at solving problems and improving Agriculture.

Bachelor of Science in Biology

The expected learning outcomes for students graduating with a Bachelor of Science degree from the Department of Biology include:

1. Knowledge of fundamental principles in biology, relevant concepts in mathematics and the physical sciences, and the ability to apply this knowledge to the critical analysis of new biological information, in the following areas:
 - a. Molecular and Cellular Basis of Life - including cell structure, metabolism, heredity, and reproduction.
 - b. Organismal Diversity - including organismal structure and function, hierarchy of organization, and the evolution of life.
 - c. Interrelations of Organisms and their Environment - including abiotic and biotic interactions, biogeochemical cycles; ecosystems and their dynamics, and human actions and interventions.
2. Understanding of the process of science, as well as demonstrated competency in biological research, with a particular emphasis on:
 - a. The scientific method, including observational, comparative and experimental approaches and the tools utilized.
 - b. A critical reading of the primary scientific literature.
 - c. Data analysis, interpretation and the communication of scientific results (including oral presentations and scientific report writing).
3. Appreciation for the relevance of the biological sciences to real-world issues, including:
 - a. Familiarity with avenues and applications of current and future research as well as the careers that use them.
 - b. Bioethical issues and their biological and social basis.

Bachelor of Science in Biomedical Science

By the end of the program, graduates of the Bachelor of Science in Biomedical Science should be able to:

1. Apply essential concepts in biochemistry, molecular biology, and cell biology to a concise research problem facing Kenya and the world.
2. Apply laboratory skills to acquire samples, conduct, plan acquire data, analyze, interpret and disseminate to consumers
3. Critically evaluate the scientific research findings.
4. Demonstrate needed communication skills, both verbal and written.
5. Apply fundamental concepts in the biomedical sciences to human health issues: development of diagnosis, biomolecules, antibiotics, treatment and prevention measures to solve problems facing man.
6. Explain the involvement of progressive biomedical science disciplines to human health.
7. Discuss and demonstrate the proper ethical and conduct of scientific researches.
8. Carry out clinical researches in proper and agreed ethical standards
9. Develop vaccines to improve human health

Bachelor of Science in Biotechnology

By the end of the program, graduates of the Bachelor of Science in Biotechnology should be able to:

1. Formulate and test hypotheses using appropriate

- experimental design and statistical analysis of data.
2. Integrate and evaluate information.
3. Plan and execute safely a series of experiments.
4. Analyze experimental results and determine their strength and validity.
5. Prepare technical reports.
6. Use the scientific literature effectively.
7. Understand scientific methodologies that are used to conduct experiments and develop products.
8. Understand ethical legal issues related to production of biotechnology products and public concerns or perception.
9. Understand GMP and ISO quality systems in different bioscience labs.
10. Understand the importance of quality in a biotechnological institution.

Bachelor of Science in Environmental Conservation

The BSc (Environmental Conservation) Program is designed to provide a broad-based education for undergraduate students who wish to study environmental issues related to resource use, protection and enhancement of environmental quality.

By the end of the program, graduates of the Bachelor of Science in environmental conservation will be qualified to:

1. Apply laboratory and field skills to analyze and solve practical environment and conservation related problems.
2. Provide advisory capacity services on matters of environmental law and policy;
3. Carry out environmental impact assessment; biodiversity assessment and monitoring
4. Participate and provide leadership in the formulation of appropriate early warning systems of environmental change;
5. Analyze and explain the interactive relationships between man and the physical, biological and social environments and relate the emanating issues to the enhancement of environmental quality;
6. Carry out teaching and provide environmental extension services
7. Meet the requirement to join graduate studies

CAREER OPPORTUNITIES IN AGRICULTURE

1. Public Service; Government organizations; Ministry of Agriculture and Livestock Development
2. Research Organizations (International and Local - KALRO (Kenya Agricultural and Livestock Research Organization) ILRI, KEPHIS, Seed companies, KEFRI, breeders, IRI etc.
3. Officers in various extension agencies Agronomist, Livestock Production, Soil Conservation,
4. Agro-Industries: Tea Industry, Coffee Industry, Horticulture, Flower industry, Sugar Factory etc.
5. Self-employment: agricultural entrepreneurship
6. Non-Governmental Organizations (NGO's) – International and Local Project Management Experts,
7. Academic; Graduate Studies: Soil Science, Animal Science, Agronomy, Agroforestry, Agricultural Extension, Plant Breeding, Animal Breeding, Environmental Science, Developmental Studies, And Rural Development.
8. Self-Employment; Small Business Entrepreneurs

CAREER OPPORTUNITIES IN BIOLOGY

Bachelor of Science in Biology

General Biology Option includes a broad mixture of Zoology, Botany, laboratory and field courses. It is recommended for those students that wish broad training in Biology, that wish to

teach biology in secondary schools and for those that are still flexible in respect to their long-term goals.

Bachelor of Science in Biomedical Science

After successful qualification with a B.Sc. in Biomedical Science the candidates can find career opportunities suitable in the following fields:

1. Biomedical scientist
2. Biotechnologist
3. Forensic scientist
4. Healthcare scientist, clinical biochemistry
5. Healthcare scientist, genomics
6. Healthcare scientist, hematology
7. Healthcare scientist, immunology
8. Medicinal chemist
9. Microbiologist
10. Physician associate
11. Research scientist (medical)
12. Toxicologist

Bachelor of Science in Biotechnology

After successful qualification with a B.Sc. in Biotechnology the candidates can find career opportunities suitable in the following fields:

1. Biomedical Engineer.
2. Biochemist.
3. Medical Scientist.
4. Biological/Clinical Technician.
5. Microbiologist.
6. Process Development Scientist.
7. Bio manufacturing Specialists.
8. Drug and pharmaceutical researcher.
9. Public funded laboratories.
10. Chemical Engineer
11. Environment control officer.
12. Food processing Manager.
13. Bio-processing industries.

Bachelor of Science in Environmental Conservation

Graduates from this program may pursue graduate studies in conservation/ Environmental biology, work in UNEP, environmental agency consultancies, work in the forestry, KEFRI, wildlife, NEMA, KWS departments and also teach at Polytechnics and tertiary colleges.

ENTRANCE REQUIREMENTS

DIRECT ENTRY

Agriculture

1. Satisfied the minimum entry requirements of the University of Eastern Africa, Baraton
2. Bachelor of Science in Agriculture, Animal, Crop and Soil, and Horticultural Science Options must pass KCSE or its equivalent with a minimum grade of C+ in Agriculture and or a C- in Biology and a C in Mathematics, Chemistry, or Physics or C+ in Physical Sciences, or must have a Diploma in the related area of study in Agriculture/Agribusiness from a recognized institution.
3. Bachelor of Science in Agribusiness must have a C+ average in KCSE or its equivalent in Mathematics or Commerce and any three of the following: Biological Science, Chemistry, Physical Science and Agriculture or must have a Diploma in the related area of study in Agriculture/Agribusiness from a recognized institution.

4. Bachelor of Science in Agriculture technology. Must have a C+ average in KCSE or its equivalent in any two of the following: biological science, physical science, agriculture, mathematics, chemistry and physics

Biology

A student wishing to be admitted into any of the Biology program under direct entry qualifications must have:

1. Satisfied the minimum entry requirements of the University of Eastern Africa, Baraton.
2. Attained a grade of C+ or above in Biology (or B- or above in Biological Sciences) and a C- or above in Mathematics at KCSE level or its equivalent.
3. Passed, in addition, any two subjects at KCSE level or its equivalent from the following list at the minimum grade shown for each subject:
 - a. Chemistry C-
 - b. Physical Science B
 - c. Physics C-
 - d. Geography C

If a student has a grade less than C- in Mathematics, he/she must take Math 001 and MATH 100

INTERDEPARTMENTAL TRANSFER

Agriculture

Inter-departmental transfer students into agriculture should have a minimum of a C+ in either COSC 111 and COSC 112 or MATH 113 and MATH 114 and a C in either BIOL 155 and BIOL 156 or CHEM 121 and CHEM 122

Biology

Biology Students admitted into other degree programs but wishing to enter one of the Biology program options can do an interdepartmental transfer into Biology provided they have an average minimum grade of C+ in COSC 111 and COSC 112 with neither grade less than a C-. In addition, an average grade of C+ is required in the Foundations of Biology series (BIOL151, 152 and 153 or BIOL 155 and 156) with no grade less than a C.

ADMISSION REQUIREMENTS FOR UPGRADERS

Agriculture

This program is designed to tap from and meet the needs of agricultural professionals who hold a diploma in agriculture or agribusiness from recognized colleges and universities both within the eastern and central Africa region and beyond. The program is designed to take two and half to three years at most.

Holders of a diploma in agriculture, agri-business or related field must meet the following criteria:

1. A minimum mean grade of C (plain) or division III at Kenya Certificate of Secondary School Education (KCSE) or its equivalent.
2. Must have a Diploma in the related area of study Agriculture/ Agribusiness.
3. Provide academic transcript, an updated curriculum vitae (CV) and course syllabi from the college/university where the diploma qualification was obtained to facilitate evaluation and credit transfer.

Biology

This program is designed to tap from and meet the needs of Biomedical, Biotechnology and Conservation professionals who

hold a diploma in Applied Biology from recognized colleges and universities both within the eastern and central Africa region and beyond. The program is designed to take 2 - 3 years to complete. Holders of a diploma in applied Biology or related field must meet the following criteria:

1. A minimum mean grade of C (plain) or division III at Kenya Certificate of Secondary School Education (KCSE) or its equivalent.
2. Must have a Diploma in the related area of study in applied Biology.
3. Provide academic transcript, an updated curriculum vitae (CV) and course syllabi from the college/university where the diploma qualification was obtained to facilitate evaluation and credit transfer.

Credit Transfer

A student who wants to be exempted from some courses offered by the University or receives credit transfer, will petition by following procedures outlined in the University bulletin. The petition must be accompanied by documents outlined in Section 3 for qualifying diploma holders. The student must have scored a minimum grade of C+ (plus) in the equivalent course he/she is seeking exemption/credit transfer.

GRADUATION REQUIREMENTS

Agriculture

Students graduating with a degree in Agriculture must meet the minimum graduation requirements for each specified in this bulletin.

A minimum grade of C- in all core, concentration, and electives is required with an overall GPA of at least 2.25

An overall GPA of 2.00 is required for minors and cognates, with no grade less than C-.

A minimum cumulative GPA of 2.00 is required on a student total credit hours to graduate

Biology

1. A minimum of 140 credits with an overall GPA of at least 2.00
2. A total of at least 93 credits (Biomedical Science), 97 credits (Biotechnology), 98 credits (Environmental Conservation) and 80 credits (General Biology) with no grades less than C- in all major courses and an overall GPA of at least 2.25
3. An overall cognate GPA of 2.00 with no grade less than C-

COURSE REQUIREMENTS

BACHELOR OF SCIENCE IN AGRIBUSINESS

SUMMARY

General Education Requirements	21
Core	32
Specialization	58
Cognates	27
Electives	6
Total	144 Credits

Agriculture students are exempted from the following General Education requirements

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
SOCI 121	Introduction to Sociology	2
	Vocational skills	1

GENERAL EDUCATION REQUIREMENT COURSES

21 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
HIST 111	Concepts of World Civilization	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
OFTE 120	Keyboarding	0
Total		21

CORE COURSES

32 Credits

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
AGRI 116B	Agriculture Ecology Trip	1
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Laboratory	1
AGRI 490	Agriculture Research Project & Seminar	3
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 110	Agriculture Informatics	2
ANSC 211	Introduction to Animal Science	3

CPSC 213	Introduction to Soils	3
CPSC 314	Crop Production I	3
HORT 113	Fundamentals of Horticulture	3
Total		32

CPSC 378	Sustainable and Conservation Agriculture	2
HORT 210	Greenhouse Crop Management	3
HORT 318	Floriculture	3
HORT 223	Ornamental and Landscape Horticulture	3

SPECIALIZATION COURSES

58 Credits

Code	Course Title	Credits
AGEC 215	Introduction to Agribusiness	3
AGEC 227	Cooperative Management	3
AGEC 261	Intermediate Micro Economic Theory	3
AGEC 290	Math Methods for Agricultural Economists I	3
AGEC 286	Introduction to Econometrics	3
AGEC 258	Financial Management in Agriculture.	3
AGEC 295	Math Methods for Agricultural Economists II	3
AGEC 350	Production Economics	3
AGEC 472	Operations research	3
AGEC 315	Agricultural Marketing and Price Analysis	3
AGEC 360	Agribusiness Financing	3
AGEC 345	Agriculture Economics	3
AGEC 330	Personnel Management in Agriculture	3
AGEC 327	International Economics	3
AGEC 420	Analysis of Agricultural Projects	3
AGEC 356	Agriculture Policy and Law	3
AGEC 445	Farm Management Practicum	1
AGEC 451	Agricultural Entrepreneurship Skills	3
AGEC 455	Agribusiness Management	3
AGEC 470	Economic Development	3
Total		58

COGNATE COURSES

27 Credits

Code	Course Title	Credits
ACCT 111	Principles of Accounting I	4
ACCT 112	Principles of Accounting II	4
BIOL 155	Foundations of Biology I	4
CHEM 121	General Chemistry I	4
ECON 210	Principles of Micro Economics	3
ECON 211	Principles of Macro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
MATH 113	Basic Business Mathematics	3
Total		27

ELECTIVES

6 Credits

Code	Course Title	Credits
AGEN 235	Tractor Operation and Maintenance	2
AGEN 332	Irrigation and Drainage	3
AGRI 220	Agroforestry	2
AGRI 231	Food Processing Technology	2
AGRI 295	Resource Survey Methods	2
AGRI 300	Projects in Agriculture	1
AGRI 335	Mushroom Production	2
AGRI 457	Emerging Trends in Agriculture	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 442	Dairy Production	3
CPSC 313	Agriculture Chemistry	3
CPSC 326	Seed Production Technology	3

BACHELOR OF SCIENCE IN AGRIBUSINESS FOR UPGRADERS

SUMMARY

General Education Requirements	17
Core	31
Specialization	55
Cognates	27
Total	130 Credits

Upgrading students are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HLED 110	Health Principles	1
HIST 111	Concepts of World Civilization	2
KISW 114	Language Skills in Kiswahili	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1

Upgrading students are exempted from the following core courses

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
ANSC 211	Introduction to Animal Science	3

Upgrading students may challenge the following courses

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 220	Agroforestry	2
AGEN 235	Tractor Operations and Maintenance	2

GENERAL EDUCATION REQUIREMENT COURSES

17 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3

RELB 220	Life and Teachings of Jesus	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES 31 Credits

Code	Course Title	Credits
AGRI110	Agriculture informatics	2
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Laboratory	1
AGRI 398	Research Project	1
AGRI 446	Professional Internship	3
AGRI 490	Agriculture research project and Seminar	3
AGRI 433	Agriculture Extension and Rural Sociology	3
ANSC 211	Introduction to Animal Science	3
CPSC 213	Introduction to Soils	3
CPSC 314	Crop Production I	3
CPSC 325	Crop Production II	3
HORT 113	Fundamentals of Horticulture	3
Total		31

SPECIALIZATION COURSES 55 Credits

Code	Course Title	Credits
AGEC 215	Introduction to Agribusiness	3
AGEC 227	Cooperative Management	3
AGEC 261	Inter Micro Economic Theory	3
AGEC 350	Production Economics	3
AGEC 286	Introduction to Economics	3
AGEC 290	Math Methods for Agricultural Economists I	3
AGEC 295	Math Methods for Agricultural Economists II	3
AGEC 315	Agricultural Marketing and Price Analysis	3
AGEC 330	Personnel Management in Agriculture	3
AGEC 345	Agriculture Economics	3
AGEC 356	Agriculture Policy and Law	3
AGEC 360	Agribusiness Financing	3
AGEC 420	Analysis of Agricultural Projects	3
AGEC 413	Management of Agricultural Enterprises	3
AGEC 445	Farm Management Practicum	1
AGEC 451	Agricultural Entrepreneurship Skills	3
AGEC 455	Agribusiness Management	3
AGEC 470	Economic Development	3
AGEC472	Operations Research	3
Total		55

COGNATE COURSES 27 Credits

Code	Course Title	Credits
ACCT 111	Principles of Accounting I	4
ACCT 112	Principles of Accounting II	4
BIOL 155	Foundations of Biology I	4
CHEM 121	General Chemistry I	4
ECON 210	Principles of Micro Economics	3
ECON 211	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
MATH 113	Business Mathematics I	3
Total		27

BACHELOR OF SCIENCE IN AGRICULTURE

SUMMARY

General Education Requirements	21
Core	81
Cognates	33
Electives	7
Total	142 Credits

Agriculture students are exempted from the following General Education requirements

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
SOCI 121	Introduction to Sociology	2
	Vocational skills	1

GENERAL EDUCATION REQUIREMENT COURSES 21 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
HIST 111	Concepts of World Civilization	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
OFTE 120	Keyboarding	0
Total		21

CORE COURSES 81 Credits

Code	Course Title	Credits
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 235	Tractor Operation and Maintenance	2
AGEN 332	Irrigation and Drainage	3
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
AGRI110	Agriculture informatics	2
AGRI 116B	Agricultural Ecology Trip	1
AGRI 231	Food Processing Technology	2

AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Lab	1
AGRI 335	Mushroom Production	2
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture research project & Seminar	3
ANSC 211	Introduction to Animal Science	3
ANSC 323/ CPSC 324	Animal Breeding/ Plant Breeding	3
ANSC 411	Poultry Science	3
ANSC 432	Animal Nutrition and Feeding	3
ANSC 442	Dairy Production	3
CPSC 213	Introduction to Soil	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 325	Crop Production II	3
CPSC 373	Soil and Water Conservation	3
CPSC 412	Crop Protection	3
HORT 312	Olericulture	3
Total		81

COGNATE COURSES

33 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

ELECTIVES

7 Credits

Code	Course Title	Credits
AGEC 330	Personnel Management in Agriculture	3
AGEC 451	Agricultural Entrepreneurship Skills	3
AGRI 220	Agroforestry	2
AGRI 295	Resource Survey Methods	2
AGRI 300	Projects in Agriculture	1
ANSC 320	Small and Large Animals in Agriculture	3
ANSC 421	Animal Anatomy and Physiology	3
CPSC 313	Agriculture Chemistry	3
CPSC 326	Seed Production Technology	3
CPSC 333	Pastures and Forage Production	3
CPSC 378	Sustainable and Conservation Agriculture	2
HORT 210	Greenhouse Crop Management	3
HORT 223	Ornamental and landscape Horticulture	3
HORT 318	Floriculture	3

BACHELOR OF SCIENCE IN AGRICULTURE FOR UPGRADERS

SUMMARY

General Education Requirements	17
Core	69
Cognates	33
Total	119 Credits

Upgrading students are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HLED 110	Health Principles	1
HIST 111	Concepts of World Civilization	2
KISW 114	Language Skills In Kiswahili	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1

Upgrading students are exempted from the following core courses

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
ANSC 211	Introduction to Animal Science	3

Upgrading students may challenge the following courses

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 220	Agroforestry	2
AGEN 235	Tractor Operations and Maintenance	2

GENERAL EDUCATION REQUIREMENT COURSES

17 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES**69 Credits**

Code	Course Title	Credits
AGEC 345	Agricultural Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGRI110	Agriculture informatics	2
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 116B	Agricultural Ecology Trip	1
AGRI 231	Food Processing Technology	2
AGRI 325	Proposal Writing Laboratory	1
AGRI 398	Research Project	1
AGRI 285	Agricultural Statistics	3
AGRI 490	Agriculture research Project & Seminar	3
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
ANSC 323/ CPSC 324	Animal Breeding/ Plant Breeding	3
ANSC 411	Poultry Science	3
ANSC 432	Animal Nutrition and Feeding	3
ANSC 442	Dairy Production	3
CPSC 213	Introduction to Soil	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 325	Crop Production II	3
CPSC 373	Soil and Water Conservation	3
CPSC 412	Crop Protection	3
HORT 223	Ornamental and Landscape Horticulture	3
HORT 312	Olericulture	3
Total		69

COGNATE COURSES**33 Credits**

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

BACHELOR OF SCIENCE IN AGRICULTURE TECHNOLOGY**SUMMARY**

General Education Requirements	21
Core	84
Cognates	34
Electives	6
Total	145 Credits

Agriculture students are exempted from the following General Education requirements

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
SOCI 121	Introduction to Sociology	2
	Vocational skills	1

GENERAL EDUCATION REQUIREMENT COURSES**21 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
HIST 111	Concepts of World Civilization	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
OFTE 120	Keyboarding	0
Total		21

CORE COURSES**84 Credits**

Code	Course Title	Credits
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 235	Tractor Operation and Maintenance	2
AGEN 315	Animal Traction Practicum	1
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
AGRI110	Agriculture informatics	2
AGRI 116B	Agricultural Ecology Trip	1
AGRI 231	Food Processing Technology	2
AGRI 285	Agricultural Statistics	3
AGRI 300	Project in Agriculture	2

AGRI 325	Proposal Writing Lab	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture Research Project & Seminar	3
ANSC 211	Introduction to Animal Science	3
ANSC 245	Livestock Practicum	1
ANSC 323/ CPSC 324	Animal Breeding/ Plant Breeding	3
ANSC 411	Poultry Science	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 432	Animal Nutrition and Feeding	3
ANSC 442	Dairy Production	3
CPSC 213	Introduction to Soils	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil Fertility and Plant Nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 325	Crop Production II	3
CPSC 373	Soil and Water Conservation	3
CPSC 412	Crop Protection	3
HORT 223	Ornamental and Landscape	3
HORT 235	Horticulture Practicum I - Fruits, Nuts and Flowers	1
HORT 312	Olericulture	3
Total		84

COGNATE COURSES

34 Credits

Code	Course Title	Credits
AUTO 222	Automotive Engines	3
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
TCDE 111	Engineering Materials	2
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
MTLS 242	Welding Technology	2
GEOG 255	Principles of Geographic Information Systems	2
Total		34

ELECTIVES

6 Credits

Code	Course Title	Credits
AGEC 330	Personnel Management in Agriculture	3
AGEC 451	Agricultural Entrepreneurship Skills	3
AGRI 220	Agroforestry	2
AGRI 295	Resource Survey Methods	2
AGRI 300	Projects in Agriculture	1
ANSC 320	Small and Large Animals in Agriculture	3
ANSC 421	Animal Anatomy and Physiology	3
CPSC 313	Agriculture Chemistry	3
CPSC 326	Seed Production Technology	3
CPSC 333	Pastures and Forage Production	3
CPSC 378	Sustainable and Conservation Agriculture	2

HORT 210	Greenhouse Crop Management	3
HORT 223	Ornamental and landscape Horticulture	3
HORT 318	Floriculture	3

BACHELOR OF SCIENCE IN AGRICULTURE TECHNOLOGY FOR UPGRADERS

SUMMARY

General Education Requirements	17
Core	71
Cognates	34
Total	122 Credits

Upgrading students are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HLED 110	Health Principles	1
HIST 111	Concepts of World Civilization	2
KISW 114	Language Skills In Kiswahili	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1

Upgrading students are exempted from the following core courses

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
ANSC 211	Introduction to Animal Science	3

Upgrading students may challenge the following courses

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 235	Tractor Operations and Maintenance	2

GENERAL EDUCATION REQUIREMENT COURSES

17 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2

RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES

71 Credits

Code	Course Title	Credits
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 110	Agriculture informatics	2
AGEN 235	Tractor Operation and Maintenance	2
AGEN 315	Animal Traction Practicum	1
AGRI 116B	Agricultural Ecology Trip	1
AGRI 231	Food Processing Technology	2
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Lab	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture research project & Seminar	3
ANSC 323/ CPSC 324	Animal Breeding/ Plant Breeding	3
ANSC 411	Poultry Science	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 432	Animal Nutrition and Feeding	3
ANSC 442	Dairy Production	3
CPSC 213	Introduction to Soils	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 325	Crop Production II	3
CPSC 412	Crop Protection	3
HORT 223	Ornamental and Landscape	3
HORT 235	Horticulture Practicum I - fruits, nuts and flowers	1
HORT 312	Olericulture	3
Total		71

COGNATE COURSES

34 Credits

Code	Course Title	Credits
AUTO 222	Automotive Engines	3
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
TCDE 111	Engineering Materials	2
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
MTLS 242	Welding Technology	2
GEOG 255	Principles of Geographic Information Systems	2
Total		34

BACHELOR OF SCIENCE IN AGRICULTURE (ANIMAL SCIENCE OPTION)

SUMMARY

General Education Requirements	21
Core	44
Specialization	38
Cognates	33
Electives	6
Total	142 Credits

Agriculture students are exempted from the following General Education requirements

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
SOCI 121	Introduction to Sociology	2
	Vocational skills	1

GENERAL EDUCATION REQUIREMENT COURSES

21 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
HIST 111	Concepts of World Civilization	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
OFTE 120	Keyboarding	0
Total		21

CORE COURSES

44 Credits

Code	Course Title	Credits
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprise	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 311	Constructions of Farm Structures	3
AGEN 332	Irrigation and Drainage	3
AGRI 101	Crop Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
AGRI110	Agriculture informatics	2
AGRI 116B	Agricultural Ecology Trip	1

AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Lab	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture research project & Seminar	3
CPSC 213	Introduction to Soil Science	3
CPSC 279	Crop Physiology	3
CPSC 333	Pasture and Forage Production	3
Total		44

SPECIALIZATION COURSES

38 Credits

Code	Course Title	Credits
AGRI 102	Animal Production Skills	1
ANSC 211	Introduction to Animal Science	3
ANSC 222	Ruminant and Non-Ruminant Husbandry	3
ANSC 232	Apiculture	3
ANSC 300	Processing and Marketing of Animal Products	3
ANSC 310	Aquaculture	3
ANSC 315	Dairy Practicum	1
ANSC 320	Small and Large Animals in Agriculture	3
ANSC 323	Animal Breeding	3
ANSC 411	Poultry Science	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 432	Animal Nutrition and Feeding	3
ANSC 442	Dairy Production	3
ANSC 453	Animal Parasitology and Diseases	3
Total		38

COGNATE COURSES

33 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

ELECTIVES

6 Credits

Code	Course Title	Credits
AGEN 235	Tractor Operation and Maintenance	2
AGRI 220	Agroforestry	2
AGRI 295	Resource Survey Methods	3
AGRI 300	Projects in Agriculture	1
AGRI 457	Emerging Trends in Agriculture	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 313	Agriculture Chemistry	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3

CPSC 325	Crop Production II	3
CPSC 326	Seed Production Technology	3
CPSC 378	Sustainable and Conservation Agriculture	2

BACHELOR OF SCIENCE IN AGRICULTURE (ANIMAL SCIENCE OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	17
Core	65
Cognates	33
Total	115 Credits

Upgrading students are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HLED 110	Health Principles	1
HIST 111	Concepts of World Civilization	2
KISW 114	Language Skills In Kiswahili	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1

Upgrading students are exempted from the following core courses

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
ANSC 211	Introduction to Animal Science	3

Upgrading students may challenge the following courses

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 220	Agroforestry	2
AGEN 235	Tractor Operations and Maintenance	2

GENERAL EDUCATION REQUIREMENT COURSES

17 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2

RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES 65 Credits

Code	Course Title	Credits
AGRI110	Agriculture Informatics	2
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 332	Irrigation and Drainage	3
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Practical	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture Research Project & Seminar	3
HORT 212	Propagation of Horticultural Crops	3
ANSC 222	Ruminant and Non-Ruminant Husbandry	3
ANSC 232	Apiculture	3
ANSC 300	Processing and Marketing of Animal Products	3
ANSC 310	Aquaculture	3
ANSC 315	Dairy Practicum	1
ANSC 320	Small and Large Animals in Agriculture	3
ANSC 323	Animal Breeding	3
ANSC 411	Poultry Science	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 432	Animal Nutrition and Feeding	3
ANSC 442	Dairy Production	3
ANSC 453	Animal Parasitology and Diseases	3
Total		65

COGNATE COURSES 33 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

BACHELOR OF SCIENCE IN AGRICULTURE (CROP AND SOIL SCIENCE OPTION)

SUMMARY

General Education Requirements	21
Core	40
Specialization	43
Cognates	33
Electives	6
Total	143 Credits

Agriculture students are exempted from the following General Education requirements

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
SOCI 121	Introduction to Sociology	2
	Vocational skills	1

GENERAL EDUCATION REQUIREMENT COURSES 21 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
HIST 111	Concepts of World Civilization	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
OFTE 120	Keyboarding	0
Total		21

CORE COURSES 40 Credits

Code	Course Title	Credits
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and	3
AGEN 235	Tractor Operation and Maintenance	2
AGEN 332	Irrigation and Drainage	3
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
AGRI110	Agriculture informatics	2
AGRI 116B	Agriculture Ecology Trip	1
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Lab	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3

AGRI 446	Professional Internship	3
AGRI 490	Agriculture Research Project & Seminar	3
ANSC 211	Introduction to Animal Science	3
HORT 212	Propagation of Horticultural Crops	3
Total		40

SPECIALIZATION COURSES 43 Credits

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
CPSC 213	Introduction to Soil	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 324	Plant Breeding	3
CPSC 325	Crop Production II	3
CPSC 326	Seed Production Technology	3
CPSC 333	Pasture and Forage Production	3
CPSC 345	Crops Practicum	1
CPSC 373	Soil and Water Conservation	3
CPSC 378	Sustainable and Conservation Agriculture	2
CPSC 411	Soil Management	3
CPSC 412	Crop Protection	3
CPSC 422	Crop Harvesting, Processing and Marketing	3
Total		43

COGNATE COURSES 33 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

ELECTIVES 6 Credits

Code	Course Title	Credits
AGEC 330	Personnel Management in Agriculture	3
AGEC 451	Agricultural Entrepreneurship Skills	3
AGRI 220	Agroforestry	2
AGRI 295	Resource Survey Methods	3
AGRI 300	Projects in Agriculture	1
AGRI 457	Emerging Trends in Agriculture	3
ANSC 320	Small and Large Animals in Agriculture	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 442	Dairy Production	3
HORT 210	Greenhouse Crop Management	3
CPSC 313	Agriculture Chemistry	3
HORT 223	Ornamental and landscape Horticulture	3

BACHELOR OF SCIENCE IN AGRICULTURE (CROP AND SOIL OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	17
Core	37
Specialization	41
Cognates	33
Total	128 Credits

Upgrading students are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HLED 110	Health Principles	1
HIST 111	Concepts of World Civilization	2
KISW 114	Language Skills in Kiswahili	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and Recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1

Upgrading students are exempted from the following core courses

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2

Upgrading students may challenge the following courses

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 220	Agroforestry	2
AGEN 235	Tractor Operations and Maintenance	2

GENERAL EDUCATION REQUIREMENT COURSES 17 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES**37 Credits**

Code	Course Title	Credits
AGRI110	Agriculture informatics	2
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 235	Tractor Operation and Maintenance	2
AGEN 332	Irrigation and Drainage	3
AGRI 116B	Agriculture Ecology Trip	1
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Lab	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture Research Project & Seminar	3
ANSC 211	Introduction to Animal Science	3
HORT 212	Propagation of Horticultural Crops	3
Total		37

SPECIALIZATION COURSES**41 Credits**

Code	Course Title	Credits
CPSC 213	Introduction to Soil	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 324	Plant Breeding	3
CPSC 325	Crop Production II	3
CPSC 326	Seed Production Technology	3
CPSC 333	Pasture and Forage Production	3
CPSC 345	Crops Practicum	1
CPSC 373	Soil and Water Conservation	3
CPSC 378	Sustainable and Conservation Agriculture	2
CPSC 411	Soil Management	3
CPSC 412	Crop Protection	3
CPSC 422	Crop Harvesting, Processing and Marketing	3
Total		41

COGNATE COURSES**33 Credits**

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

**BACHELOR OF SCIENCE IN AGRICULTURE
(HORTICULTURE SCIENCE OPTION)****SUMMARY**

General Education Requirements	21
Core	58
Specialization	27
Cognates	33
Electives	6
Total	142 Credits

Agriculture students are exempted from the following General Education requirements

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
BIOL 105	Human Biology	2
PHYS 100	Concepts of Physical Sciences	2
HLED 110	Health Principles	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
SOCI 121	Introduction to Sociology	2
	Vocational skills	1

**GENERAL EDUCATION REQUIREMENT
COURSES****21 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1
MUGR100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
HIST 111	Concepts of World Civilization	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
OFTE 120	Keyboarding	0
Total		21

CORE COURSES**58 Credits**

Code	Course Title	Credits
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 235	Tractor Operation and Maintenance	2
AGEN 332	Irrigation and Drainage	3
AGRI 101	Crop Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
AGRI110	Agriculture informatics	2
AGRI 116B	Agricultural Ecology Trip	1
AGRI 285	Agricultural Statistics	3

AGRI 325	Proposal Writing Lab	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture Research Project & Seminar	3
CPSC 213	Introduction to Soils	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 324	Plant Breeding	3
CPSC 325	Crop Production II	3
CPSC 412	Crop Protection	3
Total		58

SPECIALIZATION COURSES 27 Credits

Code	Course Title	Credits
HORT 113	Fundamentals of Horticulture	3
HORT 235	Horticulture Practicum I - fruits, nuts and flowers	1
HORT 212	Propagation of Horticultural Crops	3
HORT 223	Ornamental and Landscape Horticulture	3
HORT 210	Greenhouse Crop Management	3
HORT 245	Horticulture Practicum II - vegetables, herbs and spices	1
HORT 312	Olericulture	3
HORT 318	Floriculture	3
HORT 409	Horticultural Field Trips	1
HORT 323	Fruits, Nuts and Spices	3
HORT 411	Handling, Processing and Storage of Horticultural crops	3
Total		27

COGNATE COURSES 33 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

ELECTIVES 3 Credits

Code	Course Title	Credits
AGEC 330	Personnel Management in Agriculture	3
AGEC 451	Agricultural Entrepreneurship Skills	3
AGRI 220	Agroforestry	2
AGRI 295	Resource Survey Methods	3
AGRI 300	Projects in Agriculture	1
AGRI 457	Emerging Trends in Agriculture	3

ANSC 320	Small and Large Animals in Agriculture	3
ANSC 421	Animal Anatomy and Physiology	3
ANSC 442	Dairy Production	3
CPSC 313	Agriculture Chemistry	3

BACHELOR OF SCIENCE IN AGRICULTURE (HORTICULTURE OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	17
Core	74
Cognates	33
Total	124 Credits

Upgrading students are exempted from the following General Education Requirements

Code	Course Title	Credits
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
ENVI 227	Environment and Society	2
HLED 110	Health Principles	1
HIST 111	Concepts of World Civilization	2
KISW 114	Language Skills in Kiswahili	2
MATH 100	Foundations of Mathematics	3
MGMT 103	Basic Management and Entrepreneurial Skills	2
OFTE 120	Keyboarding	0
PEAC 107	Physical and recreational Activities	1
PHYS 100	Concepts of Physical Sciences	2
PSYC 101	Introduction to Psychology	2
	Vocational skills	1

Upgrading students are exempted from the following core courses

Code	Course Title	Credits
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 112	Introduction to Agriculture and Ecology	2
ANSC 211	Introduction to Animal Science	3

Upgrading students may challenge the following courses

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 220	Agroforestry	2
AGEN 235	Tractor Operations and Maintenance	2

GENERAL EDUCATION REQUIREMENT COURSES 17 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
RELH 155	Adventist Heritage	2
ENGL106	Speech Communication	1

MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings of Jesus	2
RELT 255	Introduction to Christian Ethics	2
EDUC 215	Philosophy of Christian Education	2
Total		17

CORE COURSES

74 Credits

Code	Course Title	Credits
AGRI 110	Agriculture Informatics	2
AGEC 345	Agriculture Economics	3
AGEC 413	Management of Agricultural Enterprises	3
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGEN 332	Irrigation and Drainage	3
AGRI 116B	Agricultural Ecology Trip	1
AGRI 285	Agricultural Statistics	3
AGRI 325	Proposal Writing Practical	1
AGRI 398	Research Project	1
AGRI 433	Agricultural Extension and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 490	Agriculture Research Project & Seminar	3
CPSC 213	Introduction to Soils	3
CPSC 311	Soil fertility and plant nutrition	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 324	Plant Breeding	3
CPSC 325	Crop Production II	3
CPSC 412	Crop Protection	3
HORT 113	Fundamentals of Horticulture	3
HORT 235	Horticulture Practicum I - fruits, nuts and flowers	1
HORT 212	Propagation of Horticultural Crops	3
HORT 210	Greenhouse Crop Management	3
HORT 245	Horticulture Practicum II - vegetables, herbs and spices	1
HORT 312	Olericulture	3
HORT 318	Floriculture	3
HORT 409	Horticultural Field Trips	1
HORT 323	Fruits Nuts and Spices	3
HORT 411	Handling, Processing and Storage of Horticultural Crops	3
Total		74

COGNATE COURSES

33 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 299	Genetics	3
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
ECON 210	Principles of Micro Economics	3
GEOG 255	Principles of Geographic Information Systems	2
INSY 136	Microcomputer Applications	3

COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
Total		33

BACHELOR OF SCIENCE IN BIOLOGY

SUMMARY

General Education Requirements	29
Core	40
Specialization	40
Cognates	32
Total	141 Credits

Biology students are exempted from the following General Education Requirements Courses

Code	Course Title	Credits
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MGMT 103	Basic Management and Entrepreneurial Skills	2

Biology students take the following General Education Course as a cognate

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3

GENERAL EDUCATION REQUIREMENT COURSES

29 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
AGRI 105	Principles of Agricultural Technology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101/ SOC1 121/ SWFI 107	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		29

CORE COURSES**40 Credits**

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 176	Introduction to Microbiology	3
BIOL 246	Introduction to Biotechnology	3
BIOL 285	Biostatistics	3
BIOL 286	General Ecology	3
BIOL 293	Cell Biology	3
BIOL 296	History and Philosophy of Biology	3
BIOL 449	Genetics	3
BIOL 335	Molecular Biology	3
BIOL 338	Genomics and Bioinformatics	3
BIOL 451	Biology Seminar I	2
BIOL 452	Biology Seminar II	1
BIOL 485	Attachment	2
Total		40

SPECIALIZATION COURSES**40 Credits**

Code	Course Title	Credits
ZOOL 310	Comparative Vertebrate Anatomy	3
ZOOL 322	Invertebrate Zoology	3
ZOOL 336	Ornithology	3
ZOOL 338	Mammology	3
ZOOL 342	Entomology	3
ZOOL 383	Animal Behaviour	3
ZOOL 448	Developmental Biology	3
ZOOL 360	Parasitology and Immunology	3
ZOOL 464	Systems Physiology	4
BOTN 320	Plant Anatomy	3
BOTN 374	Systematic Botany	3
BOTN 432	Plant Physiology	3
BIOL 250	Introduction to Biosafety	3
Total		40

COGNATE COURSES**32 Credits**

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 310	Biochemistry for Life Sciences	4

COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
PHYS 155	General Physics	3
PHYS 165	Heat and thermodynamics	3
Total		32

BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE**SUMMARY**

General Education Requirements	32
Core	46
Specialization	44
Cognates	22
Total	144 Credits

Biomedical Science students are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MGMT 103	Basic Management and Entrepreneurial Skills	2

Biomedical Science students take the following General Education Course as a cognate

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3

GENERAL EDUCATION REQUIREMENT COURSES**32 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
AGRI 105	Principles of Agricultural Technology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 362	Science and Religion	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2

PSYC 101/ SOCI 121/ SWFI 107	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES 46 Credits

Code	Course Title	Credits
BIOL 246	Introduction to Biotechnology	3
BIOL155	Foundations of Biology I	4
BIOL156	Foundations of Biology II	4
BIOL 296	History and philosophy of Biology	3
BIOL 286	General Ecology	3
BIOL 250	Introduction to Biosafety	3
BIOL 338	Genomics and Bioinformatics	3
BIOL 176	Introduction to Microbiology	3
BIOL 293	Cell Biology	3
BIOL 285	Biostatistics	3
BOTN320/ BOTN432	Plant Anatomy/ Plant Physiology	3
BIOL 34	Molecular Biology	3
BIOL 499	Genetics	3
BIOL 451	Biology Seminar I	2
BIOL 452	Biology Seminar II	1
BIOL 484	Biology Practicum	2
Total		46

SPECIALIZATION COURSES 44 Credits

Code	Course Title	Credits
BIOM 221	Mycology	3
BIOM 222	Human Anatomy and Physiology	4
BIOM 325	Applied Parasitology	3
BIOM 365	Histology and histologic techniques	3
BIOM 366	Endocrinology	3
BIOM 460	Immunology	3
BIOM 456	Genetics of Human Health and Disease	2
BIOM 448	Embryology	3
BIOM 475	Experimental pharmacology	3
BIOM 470	Pathology	3
BIOM 450	Virology	3
BIOM 440	Hematology	3
BIOM 476	Applied Microbiology	4
ZOOL 464	Systems Physiology	4
Total		44

COGNATE COURSES 22 Credits

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3
CLSC 235	Introduction to Pharmacology and Pharmacognosy	3
CHEM 300	Introduction to Biochemistry	3
PHYS 155	General Physics	3
CHEM 120	Fundamentals of Chemistry	3
CHEM 211	Organic Chemistry I	4
CHEM 310	Biochemistry for Life Sciences	3
Total		22

BACHELOR OF SCIENCE IN BIOTECHNOLOGY

SUMMARY

General Education Requirements	32
Core	47
Specialization	47
Cognates	18
Total	144 Credits

Biotechnology students are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MGMT 103	Basic Management and Entrepreneurial Skills	2

Biotechnology students take the following General Education Course as a cognate

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3

GENERAL EDUCATION REQUIREMENT COURSES 32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
AGRI 105	Principles of Agricultural Technology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2

RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 362	Science and Religion	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101/ SOCI 121/ SWFI 107	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES

47 Credits

Code	Course Title	Credits
BIOL 246	Introduction to Biotechnology	3
BIOL 296	History and philosophy of Biology	3
BIOL 286	General Ecology	3
BIOL 250	Introduction to Biosafety	3
BIOL 338	Bioinformatics and Genomics	3
BIOL 176	Introduction to Microbiology	3
BIOL 293	Cell Biology	3
BIOL 285	Biostatistics	3
ZOOL 342	Entomology	3
BIOL 335	Molecular Biology	3
BIOL 499	Genetics	3
BIOL 451	Research Seminar I	2
BIOL 452	Research Seminar II	1
BIOL 485	Attachment	2
BOTN320/ BOTN432	Plant Anatomy/ Plant Physiology	3
ZOOL 365	Histology	3
Total		47

SPECIALIZATION COURSES

47 Credits

Code	Course Title	Credits
BIOT 230	Biodiversity and Systematics	3
BIOT 361	Molecular Genetics	3
BIOT 330	Environmental Biotechnology	3
BIOT 334	Plant Biotechnology	3
BIOT 335	Animal Biotechnology	3
BIOT 365	Agriculture Technology	3
BIOT 444	Cytogenetic Techniques	3
BIOT 356	Microbial Physiology	3
BIOT 376	Macromolecular Structure and Analysis	3
BIOT 240	Industrial Biotechnology	3
BIOT 332	Biophysics and Instrumentation	3

BIOT 433	Bio fertilizer Technology	2
BIOT 446	Enzyme Technology	3
BIOT 453	Genetic Engineering	3
BIOT 455	Biotechnology in Agriculture and Health	3
BIOT 451	Microbial Biotechnology	3
Total		47

COGNATE COURSES

18 Credits

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3
COSC 112	Computational Mathematics II	3
CHEM 120	Fundamentals of Chemistry	3
PHYS 155	General Physics	3
CHEM 130	Introduction to Organic Chemistry	3
CHEM 300	Introduction to Biochemistry	3
Total		18

**BACHELOR OF SCIENCE IN
ENVIRONMENTAL CONSERVATION**

SUMMARY

General Education Requirements	32
Core	38
Specialization	57
Cognates	16
Total	143 Credits

Environmental conservation students are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
HLED 110	Health Principles	1
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MGMT 103	Basic Management and Entrepreneurial Skills	2

Environmental conservation students take the following General Education Course as a cognate

Code	Course Title	Credits
COSC 111	Computational Mathematics I	3

**GENERAL EDUCATION REQUIREMENT
COURSES**

32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0

EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
AGRI 105	Principles of Agricultural Technology	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
RELT 362	Science and Religion	3
HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101/ SOCI 121/ SWFI 107	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES 38 Credits

Code	Course Title	Credits
BIOL 246	Introduction to Biotechnology	3
BIOL 296	History and philosophy of Biology	3
BIOL 286	General Ecology	3
BIOL 250	Introduction to Biosafety	3
BIOL 338	Bioinformatics and Genomics	3
BIOL 176	Introduction to Microbiology	3
BIOL 293	Cell Biology	3
BIOL 285	Biostatistics	3
ZOOL 342	Entomology	3
BIOL 335	Molecular Biology	3
BIOL 499	Genetics	3
BIOL 451	Research Seminar I	2
BIOL 452	Research Seminar II	1
BIOL 485	Attachment	2
Total		38

SPECIALIZATION COURSES 57 Credits

Code	Course Title	Credits
ENCO 304	Biodiversity Conservation	3
ENCO 203	Wildlife Management and Conservation	3
ENCO 206	Environmental Stress on Biota	3
ENCO 320	Wetland Ecology and Conservation	3
ENCO 205	Marine Ecology	3

ENCO 296	Animal Ecology and Behaviour	3
ENCO 204	Environment, Development and Industrial Management	3
ENCO 300	Fresh Water Ecology and Inland Water	3
ENCO 306	Biometrics and Ecological Techniques	3
ENCO 301	Climate change, Environmental Degradation and Management	3
ENCO 305	Environment and International Relations	3
ENCO 201	Forest ecology and its Conservation	3
ENCO 303	Natural Resource Economics	3
ENCO 400	Environmental Risk Assessment	3
ENCO 401	Environmental Pollution and Control	3
ENCO 402	Environmental Planning and Management	3
ENCO 403	Remote Sensing and GIS	3
ENCO 404	Environmental Law and Policy	3
ENCO 405	Environmental Impact Assessment and Audit	3
Total		57

COGNATE COURSES 16 Credits

Code	Course Title	Credits
CHEM 120	Fundamentals of Chemistry	3
CHEM 210	Organic Chemistry I	4
PHYS 155	General Physics	3
GEOG 101	Physical Environment and Land Use Systems	3
COSC 111	Computational Mathematics I	3
Total		16

MINOR IN AGRICULTURE

SUMMARY

Core	21
Electives	6
Total	27 Credits

CORE COURSES 21 Credits

Code	Course Title	Credits
AGEN 115	Introduction to Farm Machinery and Mechanization	3
AGRI 101	Crop Production Skills	1
AGRI 102	Animal Production Skills	1
AGRI 108	Introduction to Agriculture and Ecology	2
AGRI 231	Food Processing Technology	2
AGRI 295	Resource Survey Methods	3
ANSC 211	Introduction to Animal Science	3
CPSC 213	Introduction to Soils	3
HORT 223	Ornamental and Landscape Horticulture	3
Total		21

MINOR IN BIOLOGICAL SCIENCE PROGRAMS

SUMMARY

Core	17
Electives	12
Total	29 Credits

CORE COURSES 17 Credits

Code	Course Title	Credits
BIOL 155	Foundations of Biology I	4
BIOL 156	Foundations of Biology II	4
BIOL 246	Introduction to Biotechnology	3
BIOL 250	Introduction to Biosafety	3
BIOL 296	History and Philosophy of Biology	3
Total		17

SPECIALIZATION COURSES 12 Credits

Students select a minimum of 12 credits from their specialization with at least one course with a **BIOL** prefix, one with a **BOTN** prefix and one with a **ZOOL** prefix.

UPGRADING COURSE INTO A BACHELOR OF SCIENCE IN BIOLOGY

Note: Students upgrading to a Bachelor of Science in Biological Science programs are exempted up to 36 credits which will be determined by the Departmental board.

UPGRADING COURSE INTO A BACHELOR OF SCIENCE IN BIOLOMEDICAL SCIENCES

Students to be exempted from the following courses

1. BIOL 155
2. BIOL 156
3. BIOL 176
4. ENGL 105
5. ENGL 106
6. INSY 107/INSY 108
7. SOC 121/SWFI 107
8. CHEM 120

Bachelor of Science in AGRIBUSINESS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	ENGL 105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2
	OFTE 120	Keyboarding	0	0	0	MATH 114	Business Mathematics II	3	0	3
	RELH 155	Adventist Heritage	2	0	2	ACCT 112	Principles of Accounting II	4	0	4
	MATH 113	Business Mathematics I	3	0	3	AGRI 102	Animal Production Skills	0	1	1
	ACCT 111	Principles of Accounting	4	0	4	AGEC 215	Introduction to Agribusiness	3	0	3
	AGRI 101	Crop Production Skills	0	1	1	AGRI 116	Agriculture Ecology Trip	1	0	1
	AGRI 112	Introduction to Agriculture and Ecology	1	0	1	RELT 207	Christian Beliefs	3	0	3
	Total		15	1	16	Total		17	1	18
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
2nd	HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Philosophy of Christian Education	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	GEOG 255	Geographic Information Systems	2	0	2
	BIOL 155	Foundations of Biology I	3	1	4	AGEC 261	Intermediate Micro Economic Theory	3	0	3
	CHEM 121	General Chemistry I	3	1	4	AGEC 290	Mathematics Methods for Agricultural Economists I	3	0	3
	AGRI 285	Agricultural Statistics	3	0	3	ANSC 211	Introduction to Animal Science	2	1	3
						HORT 113	Fundamentals of Horticulture	2	1	3
	Total		15	2	17	Total		16	2	18
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
3rd	ECON 210	Principles of Microeconomics	3	0	3	ECON 211	Principles of Macroeconomics	3	0	3
	AGEC 227	Cooperative Management	3	0	3	AGEC 258	Financial Management in Agriculture	3	0	3
	AGEC 286	Introduction to Econometrics	3	0	3	AGEC 295	Mathematical Methods for Agricultural Economics II	3	0	3
	AGEC 262	Production Economics and Operational Research	3	0	3	AGEC 315	Agricultural Marketing and Price Analysis	3	0	3
	AGRI 325	Proposal Writing Laboratory	0	1	1	AGRI 398	Research Project	0	1	1
	CPSC 314	Crop Production I	2	1	3	AGEC 356	Agricultural Policy and Law	3	0	3
	CPSC 213	Introduction to Soils	2	1	3		Elective	2	0	2
	Total		16	3	19	Total		17	1	18
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
4th	AGEC 327	International Economics	3	0	3	AGEC 445	Farm Management Practicum	0	1	1
	AGEC 330	Personnel Management in Agriculture	3	0	3	AGEC 451	Agricultural Entrepreneur Skills	3	0	3
	AGEC 345	Agriculture Economics	3	0	3	AGEC 455	Agribusiness Management	3	0	3
	AGEC 360	Agribusiness Financing	3	0	3	AGEC 470	Economic Development	3	0	3
	AGEC 420	Analysis of Agriculture Projects	3	0	3	AGRI 433	Agricultural Extension and Rural Sociology	3	0	3
	AGRI 499	Agriculture Seminar	1	0	1	AGRI 446	Professional Internship	3	0	3
		Elective	2	0	2		Elective	2	0	2
	Total		18	0	18	Total		17	1	18

Bachelor of Science in AGRICULTURE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0	RELT 207	Christian Beliefs	3	0	3	
	RELH 155	Adventist Heritage	2	0	2	BIOL 156	Foundations of Biology II	3	1	4	
	COSC 111	Computational Mathematics I	3	0	3	COSC 112	Computational Mathematics II	3	0	3	
	BIOL 155	Foundations of Biology I	3	1	4	AGRI 102	Animal Production Skills	0	1	1	
	AGRI 101	Crop Production Skills	0	1	1	AGRI 116	Agriculture Ecology Trip	0	1	1	
	AGRI 112	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3	
	Total			15	2	17	Total			14	4
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HIST 111	Concepts of World Civilization	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	GEOG 255	Principles of Geographic Information Systems	2	0	2	
	AGRI 285	Agricultural Statistics	3	0	3	CHEM 122	General Chemistry II	3	1	4	
	CHEM 121	General Chemistry I	3	1	4	AGEN 235	Tractor Operation and Maintenance	1	1	2	
	CPSC 213	Introduction to Soil	2	1	3	AGRI 231	Food Processing Technology	1	1	2	
	CPSC 279	Crop Physiology	2	1	3	ANSC 211	Introduction to Animal Science	2	1	3	
	Total			16	3	19	Total			13	4
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ECON 210	Principles of Micro Economics	3	0	3	AGEN 332	Irrigation and Drainage	2	1	3	
	INSY 136	Microcomputer Applications	3	0	3	AGRI 398	Research Project	0	1	1	
	CPSC 314	Crop Production I	2	1	3	CPSC 311	Soil Fertility and Plant Nutrition	2	1	3	
	AGRI 325	Proposal Writing Laboratory	1	0	1	CPSC 325	Crop Production II	2	1	3	
	CPSC 373	Soil and Water Conservation	2	0	3	HORT 312	Olericulture	2	1	3	
	BIOL 299	Genetics	2	1	3	AGRI 335	Mushroom Production	1	1	2	
		Elective	2	0	2		Elective	3	0	3	
	Total			15	2	18	Total			12	6
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ANSC 323/ CPSC 325	Animal Breeding/ Plant Breeding	2	1	3	AGEC 413	Management of Agricultural Enterprises	3	0	3	
	AGEC 345	Agriculture Economics	3	0	3	ANSC 442	Dairy Production	2	1	3	
	ANSC 411	Poultry Science	2	1	3	CPSC 321	Weed Science	2	1	3	
	ANSC 432	Animal Nutrition and Feeding	2	1	3	AGRI 433	Agricultural Extension and Rural Sociology	3	0	3	
	AGRI 499	Agriculture Seminar	1	0	1	AGRI 446	Professional Internship	3	0	3	
	CPSC 412	Crop Protection	3	0	3						
		Elective	2	0	2						
Total			15	3	18	Total			13	2	15

Bachelor of Science in AGRICULTURE TECHNOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	ENGL 105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2
	OFTE 120	Keyboarding	0	0	0	RELT 207	Christian Beliefs	3	0	3
	RELH 155	Adventist Heritage	2	0	2	BIOL 156	Foundations of Biology II	3	1	4
	COSC 111	Computational Mathematics I	3	0	3	COSC 112	Computational Mathematics II	3	0	3
	BIOL 155	Foundations of Biology I	3	1	4	AGRI 102	Animal Production Skills	0	1	1
	AGRI 101	Crop Production Skills	0	1	1	AGRI 116	Agriculture Ecology Trip	1	0	1
	AGRI 112	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3
	Total		15	2	17	Total		15	3	18
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
2nd	HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	EDUC 215	Philosophy of Christian Education	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	GEOG 255	Principles of Geographic Information Systems	2	0	2
	CHEM 121	General Chemistry I	3	1	4	CHEM 122	General Chemistry II	3	1	4
	CPSC 213	Introduction to Soil	2	1	3	ANSC 211	Introduction to Animal Science	2	1	3
	CPSC 279	Crop Physiology	2	1	3	AGRI 231	Food Processing Technology	1	1	2
	AGRI 285	Agricultural Statistics	3	0	3	HORT 223	Ornamental and Landscape	2	1	3
	Total		16	3	19	Total		14	4	18
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
3rd	ECON 210	Principles of Micro Economics	3	0	3	AGEN 235	Tractor Operations and Maintenance	1	1	2
	INSY 136	Microcomputer Applications	3	0	3	AGEN 315	Animal Traction Practicum	1	0	1
	AGR 325	Proposal Writing Practical	1	0	1	AGRI 398	Research Project	1	0	1
	CPSC 373	Soil and Water Conservation	2	0	2	AUTO 311	Automotive Diesel	2	1	3
	CPSC 314	Crop Production I	2	1	3	CPSC 311	Soil Fertility and Plant Nutrition	2	1	3
	AUTO 222	Automotive Engines	2	1	3	CPSC 321	Weed Science	2	1	3
	HORT 235	Horticulture Practicum I - fruits, nuts and flowers	0	1	1	CPSC 325	Crop Production II	2	1	3
		Elective	3	0	3	HORT 312	Olericulture	2	1	3
	Total		16	3	19	Total		13	6	19
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
4th	AGRI 499	Agriculture Seminar	1	0	1	AGEC 413	Management of Agricultural Enterprises	3	0	3
	ANSC 323/ CPSC 324	Animal Breeding/ Plant Breeding	2	1	3	AGRI 433	Agricultural Extension and Rural Sociology	3	0	3
	ANSC 411	Poultry Science	2	1	3	AGRI 446	Professional Internship	3	0	3
	CPSC 412	Crop Protection	2	1	3	ANSC 421	Animal Anatomy and Physiology	2	1	3
	MTLS 242	Welding Technology	1	1	2	ANSC 442	Dairy Production	2	1	3
	TCDE 111	Engineering Materials	2	1	3		Elective	3	0	3
	Total		10	5	15	Total		16	2	18

Bachelor of Science in AGRICULTURE (Animal Science Option)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ENGL 105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2
	OFTE 120	Keyboarding	0	0	0	RELT 207	Christian Beliefs	3	0	3
	RELH 155	Adventist Heritage	2	0	2	BIOL 156	Foundations of Biology II	3	1	4
	COSC 111	Computational Mathematics I	3	0	3	COSC 112	Computational Mathematics II	3	0	3
	BIOL 155	Foundations of Biology I	3	1	4	AGRI 102	Animal Production Skills	0	1	1
	AGRI 101	Crop Production Skills	0	1	1	AGRI 116	Agricultural Ecology Trip	0	1	1
	AGRI 112	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3
	Total		15	2	17	Total		14	4	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Philosophy of Christian Education	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	GEOG 255	Principles of Geographic Information Systems	2	0	2
	CHEM 121	General Chemistry I	3	1	4	CHEM 122	General Chemistry II	3	1	4
	CPSC 213	Introduction to Soil	2	1	3	ANSC 232	Apiculture	2	1	3
	CPSC 279	Crop Physiology	2	1	3	ANSC 211	Introduction to Animal Science	2	1	3
	AGRI 285	Agricultural Statistics	3	0	3	AGEN 332	Irrigation and Drainage	2	1	3
	Total		16	3	19	Total		15	4	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ECON 210	Principles of Micro Economics	3	0	3	AGEN 311	Construction of Farm Structures	2	1	3
	INSY 136	Microcomputer Applications	3	0	3	AGRI 398	Research Project	0	1	1
	BIOL 299	Genetics	2	1	3	ANSC 310	Aquaculture	2	1	3
	AGRI 325	Proposal Writing Laboratory	1	0	1	ANSC 320	Small and Large Animals in Agriculture	2	1	3
	ANSC 300	Processing and Marketing of Animal Products	2	1	3	ANSC 421	Animal Anatomy and Physiology	2	1	3
	ANSC 222	Ruminant and Non-Ruminant Husbandry	2	1	3	CPSC 333	Pasture and Forage Production	2	1	3
		Elective	2	0	2					
	Total		15	3	18	Total		10	6	16
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AGEC 345	Agriculture Economics	3	0	3	AGEC 413	Management of Agricultural Enterprises	3	0	3
	AGRI 499	Agriculture Seminar	1	0	1	AGRI 433	Agricultural Extension and Rural Sociology	3	0	3
	ANSC 315	Dairy Practicum	0	1	1	AGRI 446	Professional Internship	3	0	3
	ANSC 323	Animal Breeding	2	1	3	ANSC 442	Dairy Production	2	1	3
	ANSC 432	Animal Nutrition and Feeding	2	1	3	ANSC 453	Animal Parasitology and Diseases	2	1	3
	ANSC 411	Poultry Science	2	1	3					
		Elective	2	0	2					
	Total		12	4	16	Total		13	2	15

Bachelor of Science in AGRICULTURE (Crop and Soil Science Option)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	ENGL 105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2
	OFTE 120	Keyboarding	0	0	0	RELT 207	Christian Beliefs	3	0	3
	RELH 155	Adventist Heritage	2	0	2	BIOL 156	Foundations of Biology II	3	1	4
	COSC 111	Computational Mathematics I	3	0	3	COSC 112	Computational Mathematics II	3	0	3
	BIOL 155	Foundations of Biology I	3	1	4	AGRI 102	Animal Production Skills	0	1	1
	AGRI 101	Crop Production Skills	0	1	1	AGRI 116	Agriculture Ecology Trip	0	1	1
	AGRI 112	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3
	Total		15	2	17	Total		14	4	18
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
2nd	HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Philosophy of Christian Education	2	0	2
	RELB 220	Life and Teachings of Jesus	2	0	2	GEOG 255	Principles of Geographic Information Systems	2	0	2
	CHEM 121	General Chemistry I	3	1	4	CHEM 122	General Chemistry II	3	1	4
	CPSC 213	Introduction to Soil	2	1	3	ANSC 211	Introduction to Animal Science	2	1	3
	AGRI 285	Agricultural Statistics	3	0	3	HORT 212	Propagation of Horticultural Plants	2	1	3
	CPSC 279	Crop Physiology	2	1	3	CPSC 333	Pasture and Forage Production	2	1	3
	Total		16	3	19	Total		15	4	19
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
3rd	ECON 210	Principles of Micro Economics	3	0	3	AGN 332	Irrigation and Drainage	2	1	3
	INSY 136	Microcomputer Applications	3	0	3	AGRI 398	Research Project	1	0	1
	BIOL 299	Genetics	2	1	3	CPSC 311	Soil fertility and plant nutrition	2	1	3
	AGRI 325	Proposal Writing Laboratory	1	0	1	CPSC 321	Weed Science	2	1	3
	CPSC 314	Crop Production I	2	1	3	CPSC 325	Crop Production II	2	1	3
	CPSC 373	Soil and Water Conservation	2	0	2	CPSC 326	Seed Production Technology	2	1	3
	CPSC 345	Crop Practicum	0	1	1		Elective	3	0	3
	AGEN 235	Tractor Operation and Maintenance	1	1	2					
	Total		14	4	18	Total		14	5	19
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
4th	AGEC 345	Agriculture Economics	3	0	3	AGEC 413	Management of Agricultural Enterprise	3	0	3
	AGRI 499	Agriculture Seminar	1	0	1	AGRI 433	Agricultural Extension and Rural Sociology	3	0	3
	CPSC 324	Plant Breeding	2	1	3	AGRI 446	Professional Internship	3	0	3
	CPSC 378	Sustainable and Conservation Agriculture	2	0	2	CPSC 422	Crop Harvesting, Processing and Marketing	2	1	3
	CPSC 412	Crop Protection	2	1	3	CPSC 411	Soil Management	2	1	3
		Elective	3	0	3					
	Total		13	2	15	Total		13	2	15

Bachelor of Science in AGRICULTURE (Horticulture Science Option)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL106	Speech Communication	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0	RELT 207	Christian Beliefs	3	0	3	
	RELH 155	Adventist Heritage	2	0	2	BIOL 156	Foundations of Biology II	3	1	4	
	COSC 111	Computational Mathematics I	3	0	3	COSC 112	Computational Mathematics II	3	0	3	
	BIOL 155	Foundations of Biology I	3	1	4	AGRI 102	Animal Production Skills	0	1	1	
	AGRI 101	Crop Production Skills	0	1	1	AGRI 116	Agriculture Ecology Trip	1	0	1	
	AGRI 108	Introduction to Agriculture and Ecology	2	0	2	AGEN 115	Introduction to Farm Machinery and Mechanization	2	1	3	
Total			15	2	17	Total			15	3	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Philosophy of Christian Education	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	GEOG 255	Principles of Geographic Information Systems	2	0	2	
	CHEM 121	General Chemistry I	3	1	4	CHEM 122	General Chemistry II	3	1	4	
	CPSC 213	Introduction to Soil	2	1	3	AGEN 235	Tractor Operation and Maintenance	1	1	2	
	AGRI 285	Agricultural Statistics	3	0	3	HORT 113	Fundamentals of Horticulture	2	1	3	
	CPSC 279	Crop Physiology	2	1	3	HORT 212	Propagation of Horticulture Plants	2	1	3	
						HORT 245	Horticulture Practicum II - vegetables, herbs and spices	0	1	1	
Total			16	3	19	Total			14	5	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ECON 210	Principles of Micro Economics	3	0	3	AGEN 332	Irrigation and Drainage	2	1	3	
	INSY 136	Microcomputer Applications	3	0	3	AGRI 398	Research Project	0	1	1	
	BIOL 299	Genetics	2	1	3	CPSC 311	Soil Fertility and plant nutrition	2	1	3	
	AGRI 325	Proposal Writing Laboratory	1	0	1	CPSC 321	Weed Science	2	1	3	
	CPSC 314	Crop Production I	2	1	3	CPSC 325	Crop Production II	2	1	3	
	HORT 210	Greenhouse Crop Management	2	1	3	HORT 312	Olericulture	2	1	3	
	HORT 235	Horticulture Practicum I - fruits, nuts and flowers	0	1	1	HORT 223	Ornamental and Landscape Horticulture	2	1	3	
	Total			13	4	17	Total			12	7
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGEC 345	Agriculture Economics	3	0	3	AGEC 413	Management of Agricultural Enterprise	3	0	3	
	CPSC 412	Crop Protection	2	1	3	AGRI 433	Agricultural Extension and Rural Sociology	3	0	3	
	AGRI 499	Agriculture Seminar	1	0	1	AGRI 446	Professional Internship	3	0	3	
	CPSC 378	Sustainable and Conservation Agriculture	2	0	2	HORT 318	Floriculture	2	1	3	
	CPSC 324	Plant Breeding	2	1	3	HORT 409	Horticultural Field Trip	0	1	1	
	HORT 409	Horticultural Field Trip	1	0	1	HORT 411	Handling, Processing and Storage of Horticultural crops	2	1	3	
	HORT 323	Fruits Nuts and Spices	2	1	3						
		Elective	3	0	3						
Total			16	3	18	Total			13	3	16

Bachelor of Science in BIOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	BIOL 155	Foundations of Biology I	3	1	4	BIOL 156	Foundations of Biology II	3	1	4
	CHEM 121	General Chemistry I	3	1	4	COSC 112	Computational Mathematics II	3	0	3
	COSC 111	Pre – Calculus	3	0	3		Vocational Skills	1	0	1
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2	0	2
	RELH 155	Adventist Heritage	2	0	2					
	Total		18	2	20	Total		13	1	14
2nd	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	BIOL 286	General Ecology	2	1	3
	BIOL 176	Introduction to Microbiology	2	1	3	BIOL 285	Biostatistics	3	0	3
	HIST 111/ HIST 119	Concepts of World Civilization / Issues in Development Studies	2	0	2	PHYS 165	Heat and Thermodynamics	2	1	3
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 212	Organic Chemistry II	3	1	4
	RELB 220	Life and Teachings of Jesus	2	0	2	CHEM 122	General Chemistry II	3	1	4
	PEAC 107	Physical and Recreational Activities	1	0	1	RELT 255	Introduction to Christian Ethics	2	0	2
	PHYS 155	General Physics	2	1	3	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	AGRI 105	Principles of Agricultural Technology	1	1	2					
	Total		15	4	19	Total		17	4	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ZOOL 310	Comparative Vertebrate Anatomy	2	1	3	BIOL 447	Molecular Biology	2	1	3
	CHEM 310	Biochemistry for Life Sciences	3	1	4	BOTN 432	Plant Physiology	2	1	3
	BIOL 326	Bioinformatics	3	0	3	BOTN 374	Systematic Botany	2	1	3
	BIOL 293	Cell Biology	2	1	3	ZOOL 322	Invertebrate Zoology	2	1	3
	BIOL 296	History and Philosophy of Biology	3	0	3	BOTN 320	Plant Anatomy	2	1	3
	BIOL 246	Introduction to Biotechnology	2	1	3	ZOOL 336	Ornithology	2	1	3
	Total		15	4	19	Total		12	6	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ZOOL 342	Entomology	2	1	3	BIOL 452	Research Seminar II	1	0	1
	ZOOL 383	Animal Behaviour	3	0	3	BIOL 299	Genetics	2	1	3
	BIOL 360	Parasitology and Immunology	2	1	3	ZOOL 464	Systems Physiology	3	1	4
	BIOL 451	Research Seminar I	2	0	2	ZOOL 448	Developmental Biology	2	1	3
	BIOL 250	Introduction to Biosafety	3	0	3	BIOL 485	Attachment	2	0	2
	ZOOL 338	Mammology	3	0	3					
	Total		15	2	17	Total		10	3	13

Bachelor of Science in BIOMEDICAL SCIENCE

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOL 155	Foundations of Biology I	3	1	4	BIOL 156	Foundations of Biology II	3	1	4
	CHEM 120	Fundamental of Chemistry	2	1	3	BIOL 176	Introduction to Microbiology	2	1	3
	COSC 111	Pre – Calculus	3	0	3	BIOL 246	Introduction to Biotechnology	2	1	3
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	RELH155	Adventist Heritage	2	0	2	LITE 151/ MUGR100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2	0	2	RELT 207	Christian Beliefs	3	0	3
	PEAC 107	Physical and Recreational Activities	1	0	1	OFTE 120	Key Boarding	0	0	0
						INSY 107/ INSY108	Information Technology / Information Technology for Health	2	0	2
					VOC SKL	Any Vocational Course	1	0	1	
	Total		16	2	18	Total		16	3	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOM 222	Human Anatomy and Physiology	3	1	4	BIOM 221	Mycology	2	1	3
	BIOL 296	History and Philosophy of Biology	3	0	3	BIOL 286	General Ecology	2	1	3
	PHYS 155	General Physics	2	1	3	BIOL 250	Biosafety	3	0	3
	RELB 220	Life and Teachings of Jesus	2	0	2	CLSC 235	Introduction to Pharmacology and Pharmacognosy	2	1	3
	KISW 114/ FREN 103/ KIS 105	Language Skills In Kiswahili / Beginning French II/ Beginning of Kiswahili I	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	AGRI 105	Principles of Agricultural Technology	1	1	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	HIST 111/ HIST 119	Concept of World Civ/Issues in Development Studies	2	0	2					
		Total	15	3	18		Total	13	3	16
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOL 293	Cell Biology	2	1	3	BIOM 352	Applied Parasitology	2	1	3
	ZOOL 342	Entomology	2	1	3	BIOL 335	Molecular Biology	2	1	3
	BIOL 336	Genomics and Bioinformatics	2	1	3	BIOL 285	Biostatistics	3	0	3
	CHEM 211	Organic Chemistry I	3	1	4	BIOM 449	Genetics	2	1	3
	BIOM 366	Principles of Endocrinology	2	1	3	CHEM 300	Introduction to Biochemistry	2	1	3
	BIOM 365	Histology and Histological Techniques	2	1	3	RELT 362	Science and Religion	3	0	3
		Total	13	6	19		Total	14	4	18
INTER-SEMESTER					BIOL 485	ATTACHMENT	2	0	2	
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	BIOM 450	Virology	3	0	3	ZOOL 464	Systems Physiology	3	1	4
	BIOM 476	Applied Microbiology	2	1	3	BIOM 460	Immunology	2	1	3
	BIOM 454	Experimental Pharmacology	2	1	3	BIOM 470	Pathology	3	0	3
	BIOM 448	Embryology	2	1	3	BIOM 440	Hematology	2	1	3
	BIOM 451	Biology Seminar I	2	0	2	BIOM 452	Biology Seminar II	0	1	1
	CHEM 310	Biochemistry for Life Sciences	3	1	4	BIOM 456	Genetics of Human Health and Disease	2	0	2
		Total	14	4	18		Total	12	4	16

Bachelor of Science in BIOTECHNOLOGY

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	BIOL 155	Foundations of Biology I	3	1	4	BIOL 156	Foundations of Biology II	3	1	4	
	CHEM 120	Fundamentals of Chemistry	2	1	3	BIOL 176	Introduction to Microbiology	2	1	3	
	COSC 111	Computational Mathematics I	3	0	3	BIOL 246	Introduction to Biotechnology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	LITE 151/ MUGR 100	Introduction to Literary Appreciation/ Music Appreciation	2	0	2	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Sociology/ Family Issues	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	OFTE 120	Key Boarding	0	0	0	
						VOC SKL	Any Vocational Course	1	0	1	
						INSY 107/ INSY108	Information Technology /Information Technology for Health	2	0	2	
Total			16	2	18	Total			16	3	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	BIOT 230	Biodiversity and Systematics	2	1	3	RELT 255	Introduction to Christian Ethics	2	0	2	
	BIOL 296	History and Philosophy of Biology	3	0	3	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	PHYS 155	General Physics	2	1	3	BIOL 286	General Ecology	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 250	Biosafety	3	0	3	
	KISW114/ FREN 103/ KIS 105	Language Skills In Kiswahili / Beginning French II/ Beginning of Kiswahili I	2	0	2	BIOT 240	Industrial Biotechnology	2	1	3	
	AGRI 105	Principles of Agricultural Technology	1	1	2	BIOT 240	Biodiversity and Systematics	3	0	3	
	HIST 111/ HIST 119	Concept of World Civil/ Issues in Development Studies	2	0	2	CHEM 130	Introduction to Organic Chemistry	2	1	3	
Total			14	4	18	Total			16	3	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	BIOT 320	Plant Anatomy	3	1	4	BIOT 334	Plant biotechnology	2	1	3	
	BIOL 293	Cell Biology	2	1	3	BIOL 335	Molecular Biology	2	1	3	
	ZOOL 342	Entomology	2	1	3	BIOL 285	Biostatistics	3	0	3	
	BIOL 336	Genomics and Bioinformatics	2	1	3	CHEM 300	Introduction to Biochemistry	2	1	3	
	BIOT 330	Environmental Biotechnology	2	1	3	ZOOL 365	Histology	2	1	3	
	BIOM 365	Histology and Histological Techniques	2	1	3	RELT 362	Science and Religion	3	0	3	
Total			13	6	19	Total			14	4	18
INTER-SEMESTER					BIOL 485	ATTACHMENT	2	0	2		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	BIOT 361	Molecular Genetics	2	1	3	BIOT 455	Biotechnology in Agriculture and Health	3	0	3	
	BIOT 365	Agro-technology	3	0	3	BIOT 446	Enzyme technology	3	0	3	
	BIOT 376	Macromolecular Structure and Analysis	2	1	3	BIOT 432	Plant Physiology	2	1	3	
	BIOT 433	Bio fertilizer Technology	2	1	3	BIOT 453	Genetic Engineering	2	1	3	
	BIOL 451	Microbial Biotechnology	2	1	3	BIOL 454	Research Seminar II	0	1	1	
	BIOT 335	Animal Biotechnology	2	1	3	BIOT 444	Cytogenetic Techniques	2	0	2	
	BIOL 453	Research Seminar I	2	0	2	BIOM 449	Genetics	2	1	3	
Total			15	5	20	Total			14	4	18

Bachelor of Science in ENVIRONMENTAL CONSERVATION

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	BIOL 155	Foundations of Biology I	3	1	4	BIOL 156	Foundations of Biology II	3	1	4	
	GEOG 101	Physical Environment and Land use system	2	1	3	BIOL 176	Introduction to Microbiology	2	1	3	
	COSC 111	Computational Mathematics I	3	0	3	BIOL 246	Introduction to Biotechnology	2	1	3	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	LITE 151/ MUGR 100	Introduction to Literary Appreciation/Music Appreciation	2	0	2	
	CHEM 120	Fundamental of Chemistry	2	1	3	RELT 207	Christian Beliefs	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	OFTE 120	Key Boarding	0	0	0	
						VOC SKL	Any Vocational Course	1	0	1	
						INSY 107/ INSY108	Information Technology /Information Technology for Health	2	0	2	
Total			16	3	19	Total			16	3	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Sociology/ Family Issues	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	BIOL 296	History and Philosophy of Biology	3	0	3	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	PHYS 155	General Physics	2	1	3	BIOL 286	General Ecology	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 250	Biosafety	3	0	3	
	KISW 114/ FREN 103/ KIS 105	Language Skills In Kiswahili / Beginning French II/ Beginning of Kiswahili I	2	0	2	ECON 201	Forest Ecology and Conservation	2	1	3	
	HIST 111/ HIST 119	Concept of World Civ/ Issues in Development Studies	2	0	2	ECON 203	Wild life management and Conservation	2	1	3	
	CHEM 211	Organic Chemistry 1	3	1	4	ECON 204	Environment, Development, Industrial Education	2	1	3	
Total			16	4	18	Total			15	4	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ECON 205	Marine Ecology	3	0	3	BIOL449	Genetics	2	1	3	
	AGRI 105	Principles of Agricultural Technology	1	1	2	ECON 301	Climate Change, Environmental degradation Management	3	0	3	
	BIOL 293	Cell Biology	2	1	3	BIOL 335	Molecular Biology	2	1	3	
	ZOOL342	Entomology	2	1	3	BIOL 285	Biostatistics	3	0	3	
	BIOL 336	Genomics and Bioinformatics	2	1	3	ECON 300	Freshwater Ecology and Inland water	2	1	3	
	ECON 206	Environmental Stress on Biota	2	0	2	RELT 362	Science and Religion	3	0	3	
	BIOLECON 296	Animal Ecology and Behavior	3	0	3						
Total			15	4	19	Total			15	3	18
INTER-SEMESTER					BIOL 485	ATTACHMENT	2	0	2		
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ECON 303	Natural Resource Economics	3	0	3	ECON 401	Environmental Pollution Control	2	1	3	
	ECON 304	Biodiversity Conservation	2	1	3	ECON 402	Environmental Planning and Management	2	1	3	
	ECON 306	Biometrics and Ecological Techniques	2	1	3	ECON 403	Remote Sensing and GIS	2	1	3	
	ECON 320	Wetland Ecology and Conservation	3	0	3	BIOL 454	Research Seminar II	0	1	1	
	ECON 400	Environmental Risk Assessment	2	0	2	ECON 404	Environmental law and policy	2	1	3	
	BIOL 453	Research Seminar I	2	0	2	ECON 405	Environmental Impact Assessment and Audit	2	1	3	
Total			14	2	16	Total			10	6	16

COURSE DESCRIPTION

AGEN 115 Introduction to Farm Machinery and Mechanization 3 Credits

The course covers a wide spectrum of equipment used in various branches of Agriculture. Theoretical aspects will include an Introduction to the Principles of force, work, simple machines, mechanics, power transmission, and sources of farm power, tillage and irrigation. Essential components of the internal combustion engine, aspects of machinery Economics, calibration and maintenance will be covered.

AGEN 235 Tractor Operations and Maintenance 2 Credits

This is a practicum course designed to teach any interested students the essentials of tractor driving. A total of 8 field and 2 theory laboratories are required for this course. There is a fee charged above the normal fee for repairs and fuel.

AGEN 311 Construction of Farm Structures 3 Credits

Introduction to planning and setting of farm structures (fences, crushes, stores, calf pens, dairy shed, poultry houses, fishpond, beehives). Factors in the site selection of the farmstead. Materials used in the construction of farm structures. Students will design, construct and maintain fences, construct farm structures such as mini-green houses, mushroom home etc.

AGEN 332 Irrigation and Drainage 3 Credits

A study of various irrigation methods, Soil-water relationships and general management practices of irrigated Agriculture. Types, Operations and maintenance of water pumps and other selected irrigation equipment will be studied. Two lectures and one three-hour lab as arranged.

AGRI 108 Introduction to Agriculture and Ecology 2 Credits

Introduction to general and modern agriculture systems and their evolution. Learn the different farming systems in both crops and livestock in tropical Africa. Energy efficiencies and their interaction with various agricultural systems. Introduce the basic Principles of agro ecology and relate these to land use classification, evolution of farming systems, energy use in Agriculture. The study of the primary ecological zones, their characteristic identifying, land use systems and human activities. Special application of agro ecology Principles will be contextualized to history of Agriculture and land policies in Kenya.

AGRI 116 Agriculture Ecology Trip 1 Credit

The field study of important ecological sites, agricultural practices, human settlements and the identification of common flora and fauna and the preparation of a herbarium. Students will pay a fee to meet the cost of a 2-week field study trip.

AGRI 220 Agroforestry 2 Credits

This course deals with the concepts, principles and practices used to cultivate trees or shrubs in association with crops, livestock and pastures. A land use systems approach, which considers agricultural resources, is taken. Principles of agro-forestry for cropland, rangeland, waterways, home compounds and boundaries and border spaces will be covered. Aspects such as the use of multipurpose trees, research and extension will be explored. Two lectures each week. Field study visits will be arranged as necessary and students will meet the cost.

AGRI 231 Food Processing Technology 2 Credits

This is a hands-on course to introduce students to the production of value-added products from raw agricultural materials. This may include techniques in oil extraction, dairy/ milk product processing, production of herbal teas, fruit and vegetable preservation, etc. While the principles are applicable to large scale industrial production, emphasis will be placed on developing skills in production methods that are applicable to the cottage industry.

AGRI 285 Agricultural Statistics 3 Credits

Nature of statistics, valuation and application of statistics, theory of proportion and probability, definitions, collection, tabulation and accurate presentation of numerical data for economic and statistical analysis, surveys and the processing of data, discrete and continuous random variables, Methods of representation, application of statistical methods to agricultural research, measures of central tendency, standard distribution, and conversion scores, stanine scores, skewness, homogeneity of populations, and relative validity of measures, business forecasting and the analysis of market trends, budgeting – target – figures and performance data; Sources of statistical information, analysis and interpretation; agricultural designs and layouts for experiments and trials; Principles of statistical sampling, sampling error, sampling distribution and normal distribution model, proportion and probability, estimation, margin of error and levels of confidence.

AGRI 295 Resource Survey Methods 2 Credits

This course covers topics on participatory and interdisciplinary scientific field survey methods used in environmental and natural resource assessment for the purpose of managing rural development programs. Among these resource survey methods are Rapid Rural Appraisal (RRA), Participatory Rural Appraisal (PRA), Participatory Project Analysis (PPA) and Participatory Gender Analysis (PGA). Two lectures per week and field practical survey to be arranged. The general objectives of this course is to enable the student to gain knowledge on participatory survey approaches through which natural resource management policy, rural development and poverty alleviation can be influenced by the marginalized beneficiaries in rural communities.

AGRI 335 Mushroom Production 2 Credits

A practical skills-oriented course on mushroom culture, spawns and substrates, environmental factors for crop cultivation, problems and solutions, processing and marketing mushrooms. Two lectures and one-hour lab every day.

AGRI 325 Proposal Writing Laboratory 1 Credit

Exercises in writing, criticizing and developing proposals are the focus of this course. In consultation with a faculty advisor, a senior project proposal must be developed and presented for approval. After approval, a project concentrating on laboratory and field work, teaching and course development, extension or Agribusiness must be initiated by enrolling in AGRI 398: Research Project. One two-hour laboratory each week. *Prerequisite: AGRI 285*

AGRI 101 Crop Production Skills 1 Credit

This is a hands-on course to develop practical skills in students. The course will consist of one three-hour laboratory each week. The laboratory sessions will include practical skills in Operation such as land preparation, planting, care of plants, harvesting, compost making,

AGRI 102 Animal Production Skills 1 Credit

This is a hands-on course to develop animal Production skills in students. The skills covered are animal handling and restraining techniques, dehorning, castrating, de-peaking, Production harvest, feed preparation, feeding, animal hygiene practices and farm practices, repair and maintenance. Additional duties will be assigned to students to reinforce learnt skills and to develop positive attributes such as dependability. One 4-hour lab each week. This is a practical oriented course. Students are encouraged and expected to fully participate in practical activities during specific labs and assigned duties. Appropriate dressing is designed. Students will be graded on the job.

AGRI 285 Agricultural Statistics 3 Credits

The course covers the nature of statistics, valuation and application of statistics, theory of proportion and probability. Definitions, collection, tabulation and accurate presentation of numerical data for economic and statistical analysis, surveys. The processing of data, discrete and continuous random variables. Methods of representation, application of statistical methods to agricultural research, measures of central tendency, standard distribution, and conversion scores, stanine scores, skewness, homogeneity of populations, and relative validity of measures. Business forecasting and the analysis of market trends, budgeting — target — figures and performance data; Sources of statistical information, analysis and interpretation; Principles of statistical sampling, sampling error, sampling distribution and normal distribution model, proportion and probability, estimation, margin of error and levels of confidence. *Prerequisite: COSC 111.*

AGEN 315 Animal Traction Practicum 1 Credit

In this course the student will develop skills in handling and training of farm animals to provide source of power for primary tillage, cultivation and transportation. The student will learn how-to make appropriate shelter, animal harness and provide operation nutrition requirements for draft animal animals. The acquired skills will be used in the department during the duration of the course. Requires three clock hours per week per credit.

AGRI 399 Special Topics In (.....) 1 Credit

A course on a topic that is of current interest, but is not covered by an established course. *Prerequisite: Department approval.*

AGRI 457 Problems in Agriculture 1 Credit

The course involves individual student research under the guidance of an instructor on current emerging trends in the field of agriculture, agribusiness, animal science, horticulture, crop and soils not covered by an established course. The course is open to all senior students.

AGEC 215 Introduction to Agribusiness 3 Credits

This course covers the Fundamentals of agribusiness, including: concepts and tools of agribusiness, the structure of agribusiness, goals, strategies, objectives, plans, target and tactics in agribusiness, nature of decisions in agribusiness, organizations of Production, processing, storage and distribution of Agricultural commodities, equipment and farm supplies. Three lectures per week.

AGEC 227 Cooperative Management 3 Credits

This course involves the study of the Principles, practices and management organs in cooperative society's movement with specific reference to the Kenyan case studies.

AGEC 258 Financial Management in Agriculture 3 Credits

The course deals with financial management in Agriculture; nature and scope of financial management, managerial goals, financial analysis, planning and control, capital structure, liquidity, risk and fraud management, financial markets in Agriculture, types of record books and accounts, cash analysis, depreciation methods and stock taking, financial statements; balance sheet, income statement, cash flow statements, analysis and interpretation of financial statement; farm records and accounts for internal control and external appraisal, budgeting and types of budgets. Three lecture hours per week.

AGEC 261 Intermediate Microeconomic Theory 3 Credits

The course covers consumer demand theory; theory of consumer choice; equilibrium of the consumer; use of the consumer demand theory; theory of the firm; market factor pricing; general equilibrium analysis. Three lecture hours per week.

AGEC 262 Production Economics and Operational Research 3 Credits

In this course, topics to be covered include: Scope of Production Economics, Production environment, Nature and characteristics of Production, Factors of Productions, risk and uncertainty, Production functions, risk and uncertainty; Production functions: Concepts of Production functions; physical Production, average Production, marginal Production, elasticity of Production; law of diminishing returns and three stages of Production; technical and Economic efficiency; costs concepts in Production; Economies and diseconomies of scale; Production relationships and decision making; factor Production, factor-factor, factor-Production Production technological change; correlation analysis techniques, simple linear programming solutions, simplex methods, Economics and Economic theory; maximizing versus minimizing techniques; dummy variable; forecasting models. Three lecture hours per week

AGEC 286 Introduction to Economics 3 Credits

Definition, scope and divisions of Economics, methodology of Econometric research, correlation theory, simple linear regression models, ordinary least squares (OLS), assumptions of OLS, significance tests: R², F-tests, T-tests, the assumption of randomness, zero mean, constant variance and normality of the disturbance variable, homoscedasticity, heteroscedasticity, autocorrelation, multicollinearity and errors in variable, Introduction to simultaneous equations in Economics, statistical estimation and hypothesis testing, correlation analysis, types of limitations of correlation method, applications of simple linear regression models, detection methods and estimation techniques of homoscedasticity, heteroscedasticity, autocorrelation, multicollinearity, and errors in variables, the use of simultaneous equations, models in Econometric analysis, the problem of identification in Economics.

AGEC 290 Mathematics Methods for Agricultural Economists I 3 Credits

Topics to be covered include mathematical techniques used in analyzing Economic problems, set theory, static analysis, linear models and matrix algebra, functions and rate of change, the concept of derivatives and their applications in Economics, the derivatives and the rules of differentiation, the concept of integration, definite and infinite integrals, exponents and logarithms and Introduction to linear programming. *Prerequisites: MATH 113 and MATH 114.*

AGEC 295 Mathematics Methods for Agricultural Economists II 3 Credits

Introduction to Economic functions, differential and difference equations and their uses in Economics, use of comparative statics in mathematical Economics, mathematical optimization, techniques including constrained and logarithmic functions in Economics, mathematical programming including solution, use of Lindo and Tora linear programming software, linear programming using a graphic approach and the simplex algorithm. Three lecture hours per week. *Prerequisite: AGECE290.*

AGEC 315 Agriculture Marketing and Value Chain Analysis 3 Credits

Topics covered under this course schedule include: Marketing concepts, Analysis of Marketing problems, Marketing Planning and Management (marketing mix), Future markets, Organizations of an Agricultural Marketing, Advertising and Public Relations, Sales Promotion and Physical Distribution of Agricultural Productions, Analysis of Supply and Demand and Elasticities of some named Agricultural commodities, and Role of Marketing in Economic Development.

AGEC 327 International Economics 3 Credits

The course covers the importance of Agricultural exports to Kenya's Economy, channels for Kenyan Agricultural exports, export linkages between Production for export and the use of domestic Economy, intra-African trade, regional with reference to COMESA and the European Economic community, role of Agriculture in import substitution and export promotion development strategies, form of foreign assistance, balance of payments disequilibrium and adjustment, foreign exchange control and policies, international material movements of capital, theory of comparative advantage and gains from trade. Three lecture hours per week.

AGEC 330 Personnel Management in Agriculture 3 Credits

This course covers Principles and practices that are used for employee planning recruitment in the Agricultural sector, focusing on skills for efficient Productivity from the employees. It includes employer /employee relationships, motivation, human resource legislation, training, orientation to safety and environmental concerns, discipline issues, team building and performance appraisals

AGEC 345 Agricultural Economics 3 Credits

This course is designed to introduce students to Agricultural Economics. Basic Economic Principles will be applied. The course covers the definition and scope of Agricultural Economics, the Economics and characterization of Agricultural Production analysis and trade, including population and food policies. Costs and Production functions. Topics include; the role of Agriculture in Economic development, theory of Agricultural Production, Agricultural demand and supply analysis; farm planning control, Agricultural marketing and international trade in Agriculture, and Food policies and food security in less developed Economies. The place of Agriculture in rural development; the prospects for Agriculture in national development. Three lecture hours each week.

AGEC 356 Agriculture Policy and Law 3 Credits

The course covers Agricultural sector policies, Production policy, marketing policy, agri-business development planning, resource use and financing policies. Other topics are: Multinational Corporation and developing countries, agri-business and

Economic development. Basic element of strategic planning, analytical sequence for problem solving and sensitivity analysis will be covered. Four lectures per week.

AGEC 360 Agribusiness Financing 3 Credits

Topics covered in this course include micro-Agricultural finance to farm and agribusiness, elementary mathematics of finance and objectives of financial management, analysis of financial ratios and uses of financial statements, cash-flow analysis, capital investment theory and applications, investment appraisal and costs of capital to agribusiness, financial management decisions. Three-lectures per week. *Prerequisite: AGECE 345.*

AGEC 413 Management of Agricultural Enterprises 3 Credits

This course covers the organization and management of Agriculture enterprises including units of Production such as land, capital, labor, power and equipment, use of records and market factors affecting management and Agricultural development. Comparing costs with levels of Production and problem solving by the students are covered. *Prerequisite: ECON 226.*

AGEC 420 Analysis of Agriculture Projects 3 Credits

The course Introduces the student to the concept of an Agricultural development project, preparation and financing projects, pricing of project costs and benefits and other measures of project worth, using case studies Simple form income analysis will also be covered. Four lectures per week.

AGEC 445 Farm Management Practicum 3 Credits

The course covers functions of management and organizational theories, motivation and group dynamics; nature of decisions and plans, decision- making and uncertainty; efficiency studies; Agribusiness analysis and control for macro and micro-business; strategic development in Agribusiness. Three-lectures per week.

AGEC 470 Economics of Development 3 Credits

The course covers historical aspects of Economic development, the importance of Agriculture in Economic development, the food problem and growth of labour force, comparative analysis of agrarian systems in Latin America, Africa and Asia. Concept of Economic development, meaning of growth and Economic development (Distinction between development and growth, development and underdevelopment, theories of development (Rostow stages of growth, Harrod-Domar growth model, Schumpeterian theory etc.), Balanced and Unbalanced growth, international Economic issues (Characteristics of a developing Country, Obstacles to development and strategies to removing them), the peasant export conflicting view. Institutional background (GATT, UNCTAD and the World Bank), current problems of primary exporters. The role of government, planning and administration, emphasis on industrialization and Economic planning, Dualism, technology and resource endowment, strategies for Agricultural development, technology and innovation, the green revolution, the uni-model and bi-model approach, Health Economics, the institutional frame work, Globalization, Policy issues and case studies. Three lecture hours per week.

AGEC 451 Agricultural Entrepreneurship Skills 3 Credits

This course covers enterprises and national Economy, Economics of crop Production: the cereals enterprise, the leguminous crop enterprise; the sugarcane enterprise, the fodder crop enterprise; the Economics of horticultural enterprises; farm data and their importance; methods of data collection; types of records and

accounts; the cash analysis books; depreciation methods; valuation and stock taking, financial statements; balance sheets and income statement accounts. Three lecture hours per week.

AGEC 455 Agribusiness Management 3 Credits

The course covers functions of management and organizational theories, motivation and group dynamics; nature of decisions and plans, decision-making and uncertainty; efficiency studies; Agribusiness analysis and control for macro and micro-business; strategic development in Agribusiness. Three-lectures per week.

HORT 223 Ornamental and Landscape Horticulture 3 Credits

Study of plants prized for their beauty. The use of such plants along with other landscape objects to produce pleasing landscapes and interior plantscapes. Two 1 hour lectures each week or two-hour laboratory or practical exercises for the 13 weeks of Semester 1.

AGRI 398 Research Project 1 Credit

Implementation through completion of the research project that was proposed while completing AGRI 325: Proposal Writing Laboratory. This course must be repeated until the project is completed. One credit will be counted towards the degree requirements. This is a practical oriented course. Students must work closely with the course instructor and their supervisor throughout the period of research. Whatever advice is given must be followed to avoid last minute hitches. Students may be asked to repeat their research projects if initial and preparation procedures as outlined in the proposal are not followed. Although land and water will be provided by the Department for research, students must arrange for their own consumables required for research. Such consumables may include: sprinklers, seed, fertilizer, hose pipes, pesticides etc. There is a cost involved for land, water and materials supplied by the Department. Students should take care of their own crop plots or livestock units as regards land preparation layout, planting, weeding, watering, feeding, health care etc.

AGRI 433 Agricultural Extension and Rural Sociology 3 Credits

The study of Agricultural extension as an educational process is facilitated by farm fact finding, needs, assessment and farm surveys and utilization of results in development extension program plans. The main objective of the course is to provide the student with an opportunity to study analytically some basic Principles in Agricultural extension i.e. the value and techniques of technical information from the various sources to the farmer in the form that he can apply to achieve Agricultural and human development.

AGRI 446 Professional Internship 3 Credits

A carefully planned program providing professional training and practice at a commercial and/ or professionally run enterprise farm. A faculty member and a professional manager/operator will supervise the student's work activities. A minimum of eight weeks of fulltime work in the internship farm are required. Prerequisites: Junior standing, and/or department approval.

AGRI 499 Agriculture Seminar 1 Credit

The presentation of the research project findings to the University community during a scheduled conference. The seminar topics based on work successfully completed in course AGRI 398. Grading in this course is by panel. *Prerequisites: AGRI 285, AGRI 325 and AGRI 398*

ANSC 211 Introduction to Animal Science 3 Credits

An Introduction to livestock industries, Principles and practice; Domestication, adaptation development and characteristics and improvement of farm animals (cattle, sheep, goats, horses, donkeys and camels as well as poultry). Practical involvement with farm animals is encouraged and is required for successful completion of the course.

ANSC 222 Ruminant and Non Ruminant Husbandry 3 Credits

A study of the care of and management of beef cattle, sheep and goats involving the efficiency of production of meat and wool as well as milk from goats. Topics include reproduction, feeding, health management systems and marketing.

ANSC 421 Animal Anatomy and Physiology 3 Credits

This is a hand on course covering general livestock improvement through increased use of outstanding sires to enhance production potential and to control diseases transmitted through natural service. Topics covered will include: Physiology of reproduction, the anatomy of the cow and bull, oestrus detection, factors affecting fertility, A.I. equipment, types of semen, their handling, and the practical considerations of A.I. Emphasis will be on developing skills in artificial insemination.

ANSC 232 Apiculture 3 Credits

The course focuses on the role of bees in agriculture. Importance of beekeeping in Kenya. Biology of the honeybee. Breeding, diseases and pests. The management of a bee colony with respect to flowering vegetation, foraging behaviour and feeding. Swarm control and types of hives. Harvesting, handling, processing, grading and marketing of honey wax. The honey industry includes a visit to a honey processing plant. Two lectures and one three-hour laboratory per week.

ANSC 300 Processing and Marketing of Animal Products 3 Credits

The course covers the processing and marketing of different types of animal meats, hides and skins, milk chemistry, milk hygiene, production and processing of various dairy products such as butter, cheese, yoghurt, ice cream, ghee. Storage and marketing of the products and quality control.

ANSC 310 Aquaculture 3 Credits

The focus of this course is on the role and potential of fish farming. Fresh water fish with emphasis on selected species, their feeding reproduction and techniques for harvesting and handling. Fish culture, breeding, construction and management of fishponds, harvesting, and handling of fish. Diseases, parasites and their control. Seawater fishes with emphasis on two selected species, their environment, feeding habits, reproduction, harvesting and handling. Fish processing, grading and marketing. Planned visit to a fish farm. Two lectures and three-hour laboratory every week.

ANSC 315 Dairy Practicum 1 Credit

This course provides on-the-job training in dairying. Experience will be gained in the care and feeding of small calves, and growing young stock, disease prevention, sanitation procedures and identification of dairy animals. Students will be trained in feeding and ration formulation for the milking herd, maintenance and repair of feeding equipment, cleaning and sanitation of milking equipment and facilities. Students will learn operation preparation and milking procedures of the dairy cow, maintenance and Operation of milking equipment, sire selection and breeding of dairy animals, parturition and care of new born calf. This

experience may be obtained during any semester of the year. Requires three clock hours per week per credit

ANSC 320 Small and Large Animals in Agriculture 3 Credits

A study of small domestic animal, the original breeds found Asia, Europe, America, Africa, and Austria. To determine various features types, genetic and behaviour around the continent. Other topics may include benefit to human life and environment. Learn as many as possible of high benefit small animal of each continent. Include dairy animals, meat production animal; pig, goat, sheep and small deer. Student should compare those animals with indigenous ones. In addition, a study of large domestic animal, and the original breeds found Asia, Europe, America, Africa, and Austria. To determine various features types, genetic and behaviour around the continent. Other topics may include benefit to human life and environment. At least learn five high benefit animals of each continent. Include dairy animals, meat production animals, draught and riding etc (cattle, horse, camel, donkey, water buffalo, and deer). Student should compare those animals with those home found. Two hours lecture and one-hour laboratory

ANSC 323 Animal Breeding 3 Credits

This course deals with the application of Mendelian and population genetics to production improvement of livestock. Theoretical genetic aspects covered in this course include mode of qualitative and quantitative inheritance, selection for qualitative and quantitative characters, mating systems and use of biotechnology in animal breeding. The application of genetic principles in effecting improvement of livestock species of economic importance will be covered. The labs are designed to enhance the understanding of the theoretical principles covered in the lectures. *Prerequisites: ANSC 320 and BIOL 299.*

ANSC 411 Poultry Sciences 3 Credits

The topics covered in this course include: Fundamentals, origin, history and development of poultry breeds, systems of poultry keeping, biology of poultry, breeding, incubation and hatchery management. Also covers: the management of poultry from day old to maturity, as well as the production and marketing of poultry products. Two lectures and one three-hour laboratory each week. Field trips arranged as need. *Prerequisite: ANSC 211.*

ANSC 432 Animal Nutrition and Feeding 3 Credits

This course covers the nutritional requirements of different livestock species and classes of feeds, processing feeds, evaluation of feeds, ration formulation and feeding methods and application of feeding to efficient livestock production.

ANSC 442 Dairy Production 3 Credits

This course covers the principles of dairy production including breeding, feeding, reproduction, milking, disease control, and dairy processing, biotechnology and production management systems. Demonstrations and practical activities in dairy management aspects including clean milk production, processing, feeding and recording will be covered. A field visit to a nearby dairy may be arranged as necessary. Dairying is an economically important agricultural sub-sector but lags behind in Sub-Saharan African countries. Dairying could contribute significantly to better utilization of arable land, creation of employment, and nutrition and food security of millions of people in the region. Hence dairying production merits critical study. *Prerequisite: ANSC 211.*

ANSC 453 Animal Parasitology and Diseases 3 Credits

Introduction to parasitism and host-parasite relationships. Classification, and identification of important parasites of domestic animals; protozoa, helminths and ecto-parasites. Lifecycles of parasites of economic importance and their importance in disease causation. Principles of control of animal parasites. The commonest parasitic diseases of economic importance in domestic animals will be discussed on the basis of their causative agent, species affected, transmission and control. In the laboratory, the students will learn to identify various parameters affecting animals, tick identification, and identify various methods of parasite control; acaricide calibration and spray race management. Parasite and diseases hinder our livestock production at great level. It reduces milk production, growth rate, delay income, increase cost of treating, raises inputs, death, cause wounds on hides and skin and some can affect human beings. Therefore, this course will help a student to promote animal health, get employment as a veterinary officer. Two lecture hours and one three-hour laboratory per week.

CPSC 213 Introduction to Soils 3 Credits

This course Introduces soil as a medium for plant growth. The physical, chemical and biological properties of soil as well as how soil originates (formation), classification systems and reactions that influence nutrient availability. Three lectures and a three-hour laboratory each week. *Prerequisites: CHEM 122 and AGRI 101.*

CPSC 279 Crop Physiology 3 Credits

The course is designed to stimulate students' interests and understanding of crop physiology give an overview of the importance of crop physiology in relation to other branches of agriculture. *Prerequisite: BIOL 155.*

CPSC 311 Soil Fertility and Plant Nutrition 3 Credits

Soil factors that alter the supply and availability of macro and micronutrients to plants are studied in relation to crop productivity. Soil tests will be performed in the laboratory. *Prerequisite: CPSC 213.*

CPSC 314 Crop Production I 3 Credits

This is an introductory course of Principles of plant, genetics and their practical application to crop improvement. Emphasis will be given to the role of biotechnology in the Production of selected cereals and grains of Economic importance covered in the light, of their ecology, origin, characteristics, distribution, Economic importance and agronomy.

CPSC 321 Weed Science 3 Credits

The course covers classification, identification, ecology, biology, morphology, distribution and economic importance of weeds. The course also focuses on methods of weed control, the effect of environmental pollution on the evolution of new weed, weed resistance, weed population shifts and weed hybridization. Chemical herbicides, consequences of indiscriminate use of chemical herbicide, the Bio-control agents, bio-herbicides and crop interaction. *Prerequisite: CHEM 122.*

CPSC 325 Crop Production II 3 Credits

This course is a continuation of CPSC 314. Emphasis is laid on history, agronomy, distribution, economic importance of annual and perennial crops of industrial value selected from beverages, tubers, fibre, fruits, latex, nuts, pyrethroids and oil producers.

CPSC 324 Plant Breeding 3 Credits

The course covers the role of the plant breeder and his work, more mode of reproduction in crop plants in relation to plant breeding methods, genetics in relation to plant breeding, the role of environment in plant breeding, methods of breeding self-pollinated crops, methods of breeding cross-pollinated crops, and methods of breeding asexually propagated plants. Current trends in plant breeding will also be covered and the Field-plot-techniques and experiments design. *Prerequisite: BIOL 299.*

CPSC 326 Seed Production Technology 3 Credits

Production, distribution and use of seed crops, seed testing, inspection, certification and legislation pertaining to these important aspects of seed production. *Prerequisite: CPSC 314*

CPSC 333 Pasture and Forage Production 3 Credits

A study of grasses and legumes that are productive in the tropics. Identification of species, planting practices, grazing management, fertilizer needs, and the feasibility of various grass legume mixtures are studied.

CPSC 345 Crops Practicum 1 Credit

This course is designed to provide the student an opportunity to gain crop production skills. The student will work with one or more crops at a time as directed by the instructor. The crops are to be selected from the following groups: field crops, forage crops, vegetables, legumes. Requires three clock hours per week.

CPSC 373 Soil and Water Conservation 3 Credits

This course covers surveying and surveying equipment, agents of soil erosion, processes problems and control strategies, and the application of Universal Soil Loss Equation (USLE). Land capability classes, methods, soil and water conservation such as biological and physical measures. A student project will be required. Two lectures each week and field work are necessary.

CPSC 378 Sustainable and Conservation Agriculture 2 Credits

The course is designed to enable students understand the principles and techniques of sustainable agriculture, and consequently able to produce high yielding crops economically are sustainable.

CPSC 411 Soil Management 3 Credits

This course covers: Soils of the Tropics and their Management Systems. It deals with fertility to increase crop yields and also factors responsible for plant food lost from the soil. Students will be required to undertake a project on which they will submit a term paper. The laboratory covers soil analysis for macro as well as micronutrients, fertilizers and their effect on the soil, soil pH and liming. Two lecture hours and one three-hour laboratory per week. *Prerequisite: CPSC 311.*

CPSC 412 Crop Protection 3 Credits

A course dealing with identification of crop diseases and their control. Growth, reproduction, identification, isolation of plant pathologic fungi and bacteria will be covered. Pests of major agricultural importance and their control will also be covered.

CPSC 422 Crop Harvesting, Processing and Marketing 3 Credits

This course covers handling of crops harvesting to production of saleable products. Two lectures per week and one three-hour laboratory.

CPSC 313 Agricultural Chemistry 3 Credits

The course covers bimolecular, amino acids, lipids, carbohydrates, nucleic acids and nucleotide, giving emphasis mainly to structural properties and classifications. Kinetics of enzyme-catalysed reactions giving a relationship to kinetics of chemical reactions and the factors involved, properties of aqueous solutions mentioning the electrolyte balance in animal and plant systems. Soil and plant analysis preparation of samples, digestion and excretion, procedures as well as analysis involving colorimetric, atomic absorption procedures, as well as, analysis involving colorimetric, atomic absorption spectrophotometry and flame photometry. The laboratory covers the nomenclature of biochemical used in agriculture, soil analysis, plant tissue analysis procedures as well as analysis involving calorimeter, atomic absorption, use of spectrophotometer etc. Two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM122.*

HORT 210 Greenhouse Crop Management 3 Credits

Students are introduced to greenhouse management and production. Variable physical conditions such as heating, lighting, plant nutrition found in green house conditions and how they relate to plant growth and development are emphasized. The production practices of selected greenhouse crops will be demonstrated. Principles of greenhouse construction and operations are also covered. Two lectures and one three-hour lab each.

HORT 113 Fundamentals of Horticulture 3 Credits

This is an introductory course designed to familiarize the student with terminology and principles of horticultural production and science. This will include learning scientific names of horticultural plants, calculations, answering questions that require reasoning based on horticultural principles and learning basic terminology. Practical exercises will also be utilized as necessary.

HORT 210 Greenhouse Crop Management 2 Credits

Students are introduced to greenhouse management and production. Variable physical conditions such as heating, lighting, plant nutrition found in green house conditions and how they relate to plant growth and development are emphasized. The production practices of selected greenhouse crops will be demonstrated. Principles of greenhouse construction and operations are also covered. Two lectures and one three-hour lab each.

HORT 212 Propagation of Horticulture Plants 3 Credits

The course deals with the principles of plant propagation by seed, cuttings, and layering, grafting, scion and stalk relationships. Stalks of fruits and ornamental plants, practices employed by greenhouses and nursery operations in propagation of plants.

HORT 235 Horticulture Practicum I - fruits, nuts and flowers 1 Credits

This course provides an opportunity for students to get involved in practical work in the establishment, management and production of horticultural crops. The student will work with one or more crops as agreed with the instructor. Requires two clock hours per week per credit. *Prerequisite: Department Approval.*

HORT 245 Horticulture Practicum II - vegetables, herbs and Spices 1 Credits

The course is designed for the student to work with and develop skills in the production of vegetables. Practical work will be

conducted either in the vegetable garden or on a special plot assigned for this purpose. The students will work with one or more common East African vegetables that are produced in the University vegetable garden.

HORT 312 Olericulture 3 Credits

This course covers the production of cool and warm season indigenous and exotic vegetables. Topics will cover garden planning, cropping pattern, cultural practices, appropriate technology and biotechnological practices applicable to the production of such vegetables as Brassicas, Solanaceae, leaf, cucurbit, bulb, legume, root/tuber, and other miscellaneous vegetables. Students will be assigned a plot for a vegetable growing project to produce two or more special vegetable crops from which a technical report will be presented. Field trips will be arranged as necessary. The laboratory covers Production of various types of vegetables, harvesting, storage and marketing of vegetables, intensive vegetable production techniques etc. Two lecture hours and one three-hour laboratory per week.

Prerequisite: Junior standing.

HORT 318 Floriculture 3 Credits

This course provides students with the theory and practice of floriculture with special emphasis on cut flowers e.g. roses, carnations production, handling, arranging, breeding and marketing of the flowers is given in this introduction to the art and science of using and growing cut flowers. Field trip to commercial floriculture production facilities will be made. The laboratory will cover greenhouse flower management, watering, pest and disease control, harvesting, grading and dispatch to the market. Two lecture hours and one three-hour laboratory per week.

HORT 323 Fruits, Nuts and Spices 3 Credits

The course covers production of fruits, nuts and spices under East African conditions. Practical exercises in the orchard. Field trips are necessary.

HORT 409 Horticultural Field Trips 1 Credit

This course is concerned with organizing field study visits to places of horticultural interest and to appropriate industries. Duration and places will be determined each year. Students are expected to pay for the cost of the trips.

HORT 411 Handling, Processing and Storage of Horticultural Crops 3 Credits

The course deals with the principles and practices of distributing, storing and marketing fresh fruits, vegetables, flowers, and live ornamental plants. Two lectures and one three-hour lab each week.

BIOL 105 Human Biology 2 Credits

An integrated study of human anatomy and physiology designed to meet the general education requirements of the non-nursing, non-biology major. All major organ systems are studied with emphasis on the relation between their structure and function. Two lecture hours each week.

BIOL 151 Foundations of Biology I 3 Credits

An introductory course in Botany and zoology designed to form a firm foundation for students majoring in teaching biology. The course explores some major areas of Biology including the Chemistry of life, cell biology, genetics, protein synthesis, philosophy of Biology, principles of plant and animal classification and plant anatomy and physiology. Students will be exposed to hands on laboratory work in Chemistry of life, cell structure and

function, genetic analysis, protein isolation, principles of plant and animal classification and plant anatomy and physiology. Two lecture hours and one three-hour laboratory each week.

BIOL 152 Foundations of Biology II 3 Credits

This is the second part of the introductory course in botany and zoology. Areas covered include philosophy of biology, principles of plant and animal classification and plant anatomy and physiology. Two lecture hours and one three-hour laboratory each week. Areas covered in the laboratory include plant classification, plant anatomy and physiology, ecology, anatomy and physiology of plants. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 151.*

BIOL 153 Foundations of Biology III 3 Credits

This is the third part of the introductory course in botany and zoology. Areas covered include ecology, anatomy and physiology of animals and animal behavior. Areas covered include plant classification, plant anatomy and physiology, ecology, anatomy and physiology of plants. Two lecture hours and one three-hour laboratory each week. *Prerequisite: BIOL 152.*

BIOL 155 Foundations of Biology I 4 Credits

An introductory course in Botany and zoology designed to form a firm foundation for students majoring in the biological sciences and agriculture. The course explores some major areas of Biology including the Chemistry of life, cell biology, genetics, protein synthesis, philosophy of Biology, principles of plant and animal classification and plant anatomy and physiology. Students will be exposed to hands on laboratory work in Chemistry of life, cell structure and function, genetic analysis, protein isolation, principles of plant and animal classification and plant anatomy and physiology. Three lecture hours and one three-hour laboratory each week.

BIOL 156 Foundations of Biology II 4 Credits

This is the second and last series of the introductory course in botany and zoology. Areas covered include philosophy of biology, principles of plant and animal classification and plant anatomy and physiology, ecology, anatomy and physiology of animals and animal behavior. Areas covered include plant and animal classification, plant anatomy and physiology, ecology, anatomy and physiology of animals. Three lecture hours and one three-hour laboratory each week. *Prerequisite: BIOL 155.*

BIOL 176 Introduction to Microbiol 3 Credits

Introductory Microbiology deals with the nature of bacteria, fungi, viruses, and other microscopic organisms applied to human economy and nature. Themes for the course include microscopy, cell structures and functions, metabolism, genetics, host defense, disease transmission, control of infectious disease, impacts of microbes on the environment, and discipline specific laboratory skills. Areas to be covered in the laboratory include introduction to microbiology laboratory, staining techniques, culturing techniques and diagnostic microbiology. There will be two lecture hours and one three-hour laboratory per week. *Prerequisites: BIOL 156 or BIOL 153.*

BIOL 246 Introduction to Biotechn 3 Credits

This course provides an introduction to biotechnology and its application in a variety of medical, clinical and science disciplines. Topics covered include GLP, GMP, solution chemistry, spectroscopy, chromatography, basic microbiology techniques and DNA and protein purification/separation techniques. There will be two lecture hours and one three-hour laboratory per week. *Prerequisites: BIOL 156 or BIOL 153.*

BIOL 247 Medical Microbiology 4 Credits

This course is designed primarily for students in nursing and health related professions. Topics covered include history, morphology, classification, control, growth, transmission and pathogenicity of selected bacteria, viruses, rickettsia, fungi and parasites. Areas covered in the laboratory include, morphology, classification, control, growth, control transmission and pathogenicity of selected bacteria, viruses, rickettsia, fungi and parasites. Three lecture hours and two two-hour laboratories each week. *Pre-requisites: BIOM 112 and BIOM 114.*

BIOL 250 Introduction to Biosafety Credits

This course provides the framework to the practices and principles of the safe manipulation of infectious biological agents. Focus is on developing and implementing a risk assessment, routes of exposure, concepts of bio-containment, personal protective equipment, safety equipment in the laboratory and management practices aimed at mitigating the risks associated with working with bio-hazardous agents. Special attention will be given to genetically engineered products. Three lecture hours every week *Pre-requisite: BIOL 246.*

BIOL 285 Biostatistics 3 Credits

Introduction to quantitative treatment of biological data. Sampling, data collection and presentations using tables and diagrams. Descriptive and inferential statistics. Measures of central tendency and dispersion. Probability. Binomial, poison and normal probability distributions, 2-scores. Hypothesis, significance test and level. Confidence intervals and limits. Data transformations. Parametric statistics: students' t-test, F-tests. ANOVA I, ANOVA II. Non-parametric statistics: Chi Square tests, sign test, wilcoxon's rank test, Kruskal-wallis test. Correlation and regression analysis. Computer statistical programs. Three lecture hours per week. *Prerequisite: COSC 111.*

BIOL 286 General Ecology 3 Credits

This course deals with the study of plants and animals in relation to their environment. Topics include ecological systems, climate, soil, energy flow through ecosystems, cycling of matter, freshwater, marine and terrestrial ecosystems, forests, social ecology, community structure, plant communities, populations and predator-prey interactions. Topics covered in the laboratory include a visit to national parks, game reserves, and various ecosystems. Two lecture hours and one three- hour laboratory (including field projects) each week. *Prerequisites: BIOL 153 or BIOL 156.*

BIOL 293 Cell Biology 3 Credits

Information from Chemistry, Biophysics, electron microscopy and genetics are integrated to present the cell as a functional unit. Specific topics emphasized include plasma membrane organization, membrane transport, nerve and muscle physiology, mechanisms of hormone action, bioenergetics, metabolism, photosynthesis and immunology. The laboratory will cover techniques used in cell biology include electrophoresis and chromatography. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 156.*

BIOL 296 History and Philosophy of Biology 3 Credits

A survey of the history and philosophy of modern science particularly as it relates to the interpretation of biological phenomena in the context of Biblical revelation. Emphasis is on the biological and geological data that relates to earth history and the origin of life. Specific topics include the nature and limitations of science, the scientific method, scientific revolution, theories of

the origin of life, speciation, catastrophism, the paleontological record, geochronology, and the relation between science and religion. Three lecture hours each week. *Prerequisites: BIOL 156.*

BIOL 326 Genomics and Bioinformatics 3 Credits

This course provides an introduction to Bioinformatics. The course content includes: Historical perspectives, definitions. Introduction to sequences; sequence formats. Introduction to databases; sequence retrieval from public databases. Sequence alignment; local and global alignment. The FASTA and BLAST methods for database searches. Matrix sequence comparisons. Dynamic programming algorithm; scoring matrices. Phylogenetic analysis; CLUSTAL W and T-Coffee MSA tools. Gene prediction in microbial and in eukaryotes. Protein classification and structure prediction. Genome analysis- gene anatomy. Comparative genomics. Applications of Bioinformatics. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 156 or BIOL 153.*

BIOL 335 Molecular Biology 3 Credits

The course explores prokaryotic and eukaryotic molecular biology. Topics include nucleic acid structure and function, DNA replication, transcription, translation, chromosome structure and remodeling and regulation of gene expression in prokaryotes and eukaryotes, biotechnology and recombinant DNA technology. Laboratory practical will cover molecular biology techniques, such as, Southern blot, electrophoresis, and gene cloning. Two-hour lectures and one three-hour laboratory each week.

BIOL 499 Genetics 3 Credits

This course seeks to provide an in-depth background in all areas of classical/Mendelian genetics. Specific topics include Mendelian genetics, chromosome theory of inheritance, chromosome mapping, gene and chromosome mutations, human genetics, population and evolutionary genetics. Problem solving is emphasized. The laboratory deals with probability theory and statistics (as related to genetics) problem-solving and techniques of molecular genetics. Two lecture hours and one three-hour laboratory each week. *Prerequisite: BIOL 335.*

BIOL 455 Research Seminar I 2 Credits

This course provides students with an opportunity to actively engage in guided scientific research. Each student is required to design a research project, write a research proposal and perform the research. Each student will prepare written and oral reports and a "poster" presentation of the research they did in Biology Seminar. *Prerequisites: BIOL 156, BIOL 285 or COSC 150 and ENGL 105.*

BIOL 456 Research Seminar II 1 Credit

In this second section of Biology Seminar, each student will prepare written and oral reports and a "poster" presentation of the research they did in Biology Seminar I. *Prerequisite: BIOL 455.*

BIOL 485 Attachment 2 Credits

This course designed to provide the student with an opportunity to gain practical experience in conservation or field Biology and laboratory research. The student will undertake a study or research project, the subject of which is to be arranged between the student, an official designated by the park management or research institution and the faculty advisor involved. Upon completing the program, the student will submit to the department a written progress report. The student is required to work for a minimum of 30 clock hours for each credit. *Prerequisites: BIOL 154/BIOL and advanced courses depending on the nature of the attachment.*

BIOM 113 Human Anatomy**4 Credits**

An introductory course of detailed study of the human body with emphasis on the gross and histological study of the following body systems: integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive. 3 lecture hours and 1 three-hour laboratory each week.

BIOM 114 Human Physiology**4 Credits**

An understanding of the functions and regulations of the human body, and physiological integration of the organ systems to maintain homeostasis. The course content includes neural and hormonal homeostatic control mechanisms, musculoskeletal, cardiovascular, respiratory, digestive, urinary, immune, reproductive and endocrine organ systems. The course involves 3 lecture hours and 1 three-hour laboratory each week. *Prerequisite: BIOM 113.*

BIOM 221 Mycology**3 Credits**

This course is to expose students to the major groups of fungi and their respective structure, function, life cycle, physiology and classification of fungi. Its economic importance in agriculture, biotechnology, food industry, and medicine. There will be 2 lecture hours and one 3 hours lab each week. *Pre-requisite: BIOL 176.*

BIOM 476 Applied Microbiology**4 Credits**

This is an advanced course in Microbiology mainly for students in Biomedical sciences, public health, nutrition, nursing and clinical medicine. Topics covered include history, morphology, classification, control, growth, transmission and pathogenicity of bacteria, viruses, rickettsia, fungi and parasites, food microbiology, water microbiology industrial Microbiology and soil microbiology. 3 lecture hours and 2 two-hour laboratories each week. *Prerequisite: BIOL 176.*

BIOM 325 Applied Parasitology**3 Credits**

This course deals with the biology of parasitism including functional morphology and essentials of classification and distribution. It covers principles and concepts of parasitology, immunology and pathogenesis related to parasitism, a survey of parasitic protozoans, helminths and arthropods, physiology, life cycles and classification of parasites, host-parasite relationships and parasitic diseases. Emphasis is on the better-known parasites of humans and animals. The laboratory emphasizes the identification of parasites. Two lecture hours and one three-hour laboratory each week. *Prerequisite: BIOM 176.*

BIOM 365 Histology and Histologic Techniques**3 Credits**

This course deals with the study of microscopic anatomy, cytology and ultrastructure of tissues and organ systems are correlated with function. Emphasis is on normal tissue of man, staining, fixation and various microscopic techniques. Laboratories emphasize the identification and preparation of different cell and tissue types. Two lecture hours and one three-hour laboratory each week. *Prerequisites: BIOL 156 and BIOL 153.*

BIOM 366 Endocrinology**3 Credits**

An advanced third year course providing an integrated approach to the biochemistry, molecular biology, physiology, pathology and pharmacology of the endocrine system. Secretion and physiological roles of blood-borne and local hormonal mediators. Molecular signaling systems and other mechanisms used by hormones to regulate cell growth, metabolism, reproduction and other functions. Consequences of and treatments for defects

in the endocrine system illustrated with clinical disorders that affect people. There will be 2 lecture hours and one 3 hours lab each week. *Prerequisites: BIOM 156 and BIOM 114.*

BIOM 460 Immunology**3 Credits**

This course deals with the study of the essential principles of immunology. Topics discussed include the defense mechanisms of the human body against foreign agents, innate immunity, acquired immunity, the development and structure of cells within the immune response, immunogenetics, the roles of complement, and hypersensitivity reactions. 2 lecture hours each week and 1 three hours laboratory each week. *Prerequisite: BIOL 299 or BIOL 153.*

BIOM 447 Human Genetics in Health and Disease**3 Credits**

An advanced course on the molecular genetics of human disease. Topics include: single gene disorders, multifactorial disorders; cancer genetics; birth defects; epigenetics; identification and analysis of human disease genes. The course content is designed to provide students with a contemporary overview of human genetic disorders, genetic variation and on how mutations are identified and assessed for their contribution to phenotype. In addition, the course covers some aspects of management of genetic diseases and information on the genetic tools used for their diagnosis, prognosis and treatment. *Prerequisite: BIOL 499.*

BIOM 440 Hematology**3 Credits**

This course is intended to provide the student with a foundation of the theory and principles of hematology in Biomedical Sciences, diagnosis and research. Analysis and interpretation of test results will be discussed. Hematology Theory and Lab includes a review of general cell morphology with an emphasis on hematopoiesis and bone marrow evaluation. Hematological disease states such as anemia and leukemia are discussed in detail. Hemostasis, thrombosis and disease of the coagulation system are discussed. The course introduces both manual and automated testing in the hematology laboratory. There will be 2 lecture hours and one 3 hours lab each week. *Prerequisite: BIOL 176.*

BIOM 448 Embryology**3 Credits**

This course explores the study of descriptive and experimental animal embryology, and molecular aspects of development. Topics covered include gametogenesis, fertilization, cleavage, gastrulation, organogenesis, differentiation, molecular control of developmental processes, and aspects of experimental embryology. The laboratory deals with gametogenesis, cleavage, gastrulation and organogenesis with special emphasis on chick development. 2 lecture hours and 1 three-hour laboratory each week. *Prerequisites: BIOL 156 or BIOL 153.*

BIOM 450 Virology**3 Credits**

This course covers Virus taxonomy, important human pathogenic viruses, virus structure, infection process at cell level and organism level, pathogenesis, epidemiology, molecular interactions between viruses and host cells, genetic stability of viruses, influence on host cell growth control, immune response against viruses, virus vaccines, antiviral drugs, virus vectors for gene therapy and molecular virology experiment. There will be 2 lecture hours and one 3 hours lab each week. *Prerequisites: BIOL 176 or BIOL 335.*

BIOM 454 Experimental Pharmacology**2 Credits**

Experimental Pharmacology introduces final year biomedical

students to current advances in pharmacological research and drug development. The course focuses on modern approaches to understanding novel therapeutics under investigation for unmet medical needs such as cancer, chronic inflammation and neurodegenerative diseases. Students will be exposed to various areas of pharmacology not covered. This course has a field trip to a research centers carrying out experimental pharmacology. There will be 2 lecture hours and one 3 hours lab each week. Prerequisites: Student must have covered over three quarters of the department concentration courses.

BIOM 470 Pathology 3 Credits

This course covers the major pathological principles and mechanisms of human diseases that include cellular adaptations, cellular injury, inflammation, tissue repair, hemodynamic and circulatory disorders, infectious diseases, environmental and nutritional disorders and disorders of growth e.g. neoplasia. Prerequisites: BIOL 335 and BIOL 499.

BIOT 230 Industrial Biotechnology 3 Credits

This course deals with the application of microorganism and technology in industrial manufacture of bio products and processing bioenergy. Topics covered includes; Commercial production of microorganism, microorganisms and agriculture, products from microorganism, Principles of microbial growth, Bioreactors/fermenters, Downstream processing, Microbes in industries, Characteristics of microorganisms and their applications. There will be a three lecture-hours each week. The course includes a field excursion to areas relevant to the course.

BIOT 240 Biodiversity and Systematics 3 Credits

This course deals with the impact of biodiversity and taxonomy to the population of organism. Topics covered includes: Basic concept of Biodiversity, Global patterns of Biodiversity, Exotic Species, Endangered Species Conservation, Ethics of Conservation, Basic concept of Taxonomy, Taxonomy in relation to Chromosomal morphology and Evolution, Molecular Taxonomy, DNA characteristics and Protein sequences in relation to molecular taxonomy, Ecosystem Level, Species level, Gene level and Causes and Consequences of Biodiversity Loss. There will be a three lecture-hours each week. The course includes a field excursion to areas relevant to the course.

BIOT 330 Environmental Biotechnology 3 Credits

This course deals with the study of the environment in relation to an organism. Topics include components of environment, global environment problems, environment pollution and degradation, environmental management, modern fuels and their environmental impact, bioremediation, biofertilizers and bioleaching. Three lecture-hours each week. The course includes a field excursion to areas relevant to the course.

BIOT 332 Biophysics and Instrumentations 3 Credits

This course provides knowledge and understanding the principles and applications of key biophysical methods and instruments used for the characterization of the structural, functional, and dynamical properties of biological molecules and their interactions. Methods include biochemistry of biological macromolecules, molecular and statistical thermodynamics of macromolecules in solution, separation methods, x-ray diffraction, scattering from solutions of macromolecules, absorption and emission spectroscopies, nuclear magnetic resonance spectroscopy. There will be two lecture hours and one three-hour laboratory each week.

BIOT 334 Plant Biotechnology 3 Credits

This course deals with the application of biotechnology in plant study. Topics include plant nutrition, plant cell culture, totipotency, somatic embryogenesis, micropropagation and somaclonal culture, protoplast culture and somatic cell hybridization, gene transfer in plant cells, induction of haploids and polyploidy through tissue culture, and production of secondary metabolites by plant tissue culture. Laboratories provide practical skills in these topics. Laboratories provide practical skills in micropropagation and somaclonal culture, protoplast culture and somatic cell hybridization, gene transfer in plant cells, induction of haploids and polyploidy through tissue culture, and production of secondary metabolites by plant tissue culture. Two lecture hours and one three-hour laboratory per week.

BIOT 335 Animal Biotechnology 3 Credits

This course deals with the application of biotechnology in study of animals. Topics covered are: history and development of cell cultures, sterilization techniques, animal cell culture techniques, animal cell lines, cell fusion and production of monoclonal antibodies, genetic engineering in animal cells, in vitro fertilization, embryo transfer and cloning. Laboratory practical provide skills in these areas. Laboratory practical provide skills in development of cell cultures, sterilization techniques, animal cell culture techniques, animal cell lines, cell fusion and production of monoclonal antibodies, genetic engineering in animal cells, in vitro fertilization, embryo transfer and cloning. Two lecture hours and one three-hour laboratory per week.

BIOT 356 Microbial Physiology 3 Credits

This course deals with the Composition and function of the bacterial cell structure. Nutrition and nutrient transport in bacteria. Principles of energy-yielding carbohydrate metabolism, bacterial fermentation and respiration. Topics covered will include: Microbial cell structure and function, Microbial cell structure and function, Cell growth and division, Biomolecules, Enzymes, Bioenergetics, Protein transport and secretion, cell-cell communication, cell wall and capsule biosynthesis, Photosynthesis, Chemotaxis, Two-component regulatory system, Bacteria stress response, CRISPR and applied technology. There will be three lecture hours and one three-hour laboratory each week.

BIOT 361 Molecular Genetics 3 Credits

The course covers a broad array of topics primarily in eukaryotic Genetics, including gene structure, genetic and genomic analysis, gene expression and regulation. The course aims at providing an introduction to the basic principles of the molecular genetics of prokaryotic and eukaryotic organisms. The main areas of recombinant DNA technology applications will also be covered. Examples of important topics that will be discussed are: gene organization in pro- and eukaryotes, regulation of transcription and translation, techniques in recombinant DNA technology, bioinformatics in gene and genome analyses, biotechnological applications of molecular genetics. There will be two lecture hours and 1 three-hour laboratory each week. Prerequisite: BIOL 335.

BIOT 365 Agro-Technology 3 Credits

This course deals with the application of agro-technology in the field of agriculture and health; Production processes Topics covered includes; An introduction to agro-technology, applications of crop improvement and biotechnology, food processing and value addition, animal product processing technology, aquaculture production technology, agro-techniques, protected agriculture, plant in-vitro propagation, pest and

disease management, techniques used in the conservation of germ plasm. There will be a three lecture-hours each week. The course includes a field excursion to areas relevant to the course.

BIOT 376 Macromolecular Structure and Analysis 3 Credits

Biochemistry is a systematic way of thinking about, and experimentally probing, life's processes at the scale of atoms and molecules. This course deals with the study of chemical concepts, quantitative methods, and experimental reasoning will be the framework. Topics covered will include; macromolecular structure and function and analysis; Carbohydrates; Lipids; Proteins; Nucleic acids, Mechanism of enzyme kinetics, RNA enzymes and their mechanisms, membrane transporters and ion channels; Expression of genetic information, Gene are DNA. Laboratories include biochemical analysis techniques and identification of macromolecules. There will be three lecture hours and 1 three-hour laboratory each week.

BIOT 433 Bio-fertilizer Technology 2 Credits

This course deals with the application of bio-fertilizer technology in agriculture and health; Production processes Topics covered includes an introduction to fertilizers, classification, importance, advantages and constraints, microbial species, morphology of microbial species, Preparation of microbial inoculants, Azolla, cyanobacterial symbionts, organic matter and composting. There will be a three lecture-hours each week. The course includes a field excursion to areas relevant to the course.

BIOT 444 Cytogenetic Techniques 3 Credits

This lecture and laboratory course will focus on human chromosome structure, methodology, and techniques for the visualization of chromosome aberrations. Chromosome abnormalities will be discussed from the clinical and cytogenetic viewpoint. The course will also cover current topics in Cytogenetics, including new methodologies and their use in clinical genetics and research. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: BIOL 299.*

BIOT 446 Enzyme Technology 3 Credits

The course is focused on the study of structure and function of enzymes. The goal of these course is to design innovative products and processes that not only are competitive but also meet criteria of sustainability in the market. The topics that will be taught include: applications of enzymes, enzyme kinetics, mechanism of enzyme reactions, isolation and purification of enzymes, immobilization of enzymes, biosensors, and the use of enzyme in practice. Mass spectrometry of macromolecules, and single-molecule methods. There will be two lecture hours and one three-hour laboratory each week.

BIOT 451 Microbial Biotechnology 3 Credits

This course discusses the use of microorganisms in biotechnology. Microbial growth kinetics, metabolism, strain improvement, genetics, diseases and chemotherapy, food and dairy microbiology and the use of genetically engineered microbes in agriculture industries and medicine. The laboratory emphasizes on microbiological techniques and genetic manipulation of microorganisms. The laboratory emphasizes on microbiological techniques and genetic manipulation of microorganisms. Two lecture hours and one-three-hour laboratories per week. *Prerequisite: BIOL 335.*

BIOT 453 Genetic Engineering 3 Credits

This course focuses on development and advancement of

recombinant DNA technology. Historical perspectives, molecular tools and applications are covered. Other topics include gene cloning, transformation, nucleic acid purification, DNA sequencing, restriction enzymes, DNA libraries, genome mapping, DNA fingerprinting and gene manipulations. The laboratory will emphasize on acquisition of practical skills and application of recombinant DNA technology. The laboratory emphasizes on acquisition of practical skills and application of recombinant DNA technology. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 299.*

BIOT 455 Biotechnology in Agriculture and Health 3 Credits

This course deals with the application of biotechnology in agriculture and health. Topics covered includes plant tissue culture, cryopreservation, plant transformation, genetically modified crops, molecular markers, in vitro production of secondary metabolites, animal cell culture, vaccines, diagnostic technology, biosensors, recombinant products for humans and human genome mapping. The laboratory will emphasize on plant tissue culture, cryopreservation, plant transformation, genetically modified crops, molecular markers, in vitro production of secondary metabolites, animal cell culture, vaccines, diagnostic technology, biosensors, and recombinant products for humans and human genome mapping. Two lecture hours and one three-hour laboratory per week. *Prerequisites: BIOT 334 and BIOT 456.*

BOTN 320 Plant Anatomy 3 Credits

This course deals with the study of plant cells and tissue structure and organ development. Topics include plant cell organelles, xylem, phloem, root, and stem structure, structure and development of leaves and flowers and embryonic plant development. Laboratory work involves studies on various aspects of plant anatomy and morphology. Emphasis will be plant cell organelles, xylem, phloem, root, and stem structure, structure and development of leaves and flowers and embryonic plant development. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 156.*

BOTN 374 Systematic Botany 3 Credits

This course deals with the taxonomic study of vascular plants. Characteristics of the flowers, seeds, leaves, stems and roots of the common vascular plant families are studied. Laboratories deal with morphology and identification of the vascular plants. A collection of local plants is made by each student. Plants are identified using plant keys. Two lecture-hours and one three-hour laboratory per week. *Prerequisite: BIOL 156.*

BOTN 432 Plant Physiology 3 Credits

This course deals with the study of metabolism, photosynthesis, mineral nutrition, growth and development and hormonal control in plants. It also covers competitive plant responses and adaptations to the environment. The laboratory will cover metabolism, photosynthesis, mineral nutrition, growth and development and hormonal control in plants. It also covers competitive plant responses and adaptations to the environment. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 156.*

ENCO 304 Biodiversity Conservation 3 Credits

Introduction to Biodiversity. Threat to biological diversity. Units and functional importance of biodiversity. Measurement of biological diversity. Global concern towards conservation of biodiversity. Biodiversity and Human health (Eco-health),

Conventions of biological diversity. Invasive species, urban conservation-green spaces, maintaining biological diversity in urban areas NBSAP – GMOs: Emerging Issues in Biodiversity. Conservation genetics-genetic diversity, non-invasion sampling, gene flow and phylogeography, biological impacts of invasion, forensics, issues surrounding management, legislation. *Prerequisites: ENCO 203 and BIOL 286.*

ENCO 201 Forest Ecology and its Conservation 3 Credits

Forestry operationalization in respect to environment. Role of Forestry in environmental conservation. Natural forests versus planted forests. Agro forestry role of multipurpose trees and shrubs in soil and water conservation. Forest ecosystems, functions and their provisional roles. Role of forests in carbon sequestration and carbon trade. Forest Management.

ENCO 203 Wildlife Management and Conservation 3 Credits

Population ecology-extinction risk, biodiversity, conservation status, threat categories to plants, birds, mammal, reptiles etc, demography and PVA. Human wildlife conflict, conflict resolution, conservation politics, project and financial management. practical approaches to conservation methods-game parks, reserves, sanctuaries, conservancies, museums, herbaria. Restoration and mitigation, conservation leadership. 2-hour lecture and 1 three-hour lab each week. A 3-day Field trip. *Prerequisite: ENCO 201.*

ENCO 205 Marine Ecology 3 Credits

The physical environment. Beach and surf- zone flora and fauna. Sandy-muddy beach, coral, rocky and reef platform flora, vertebrates and invertebrates. Adaptations to shores life. Microbenthic communities. Distributions of the interstitial fauna, micro and macro floral and faunal communities, trophic relationships, and biological interactions. Birds and other terrestrial vertebrates. Pollution. The dune ecosystem and dune or beach exchanges. Impact of surrounding environment. Tropical sea-weeds; their environment, photorespiration, nutrients, carbon metabolism and competition, related herbivores and predators. Effects of temperatures, salinity, water. Productivity, commercial uses; morphogenesis. Mariculture pollution. Factors affecting marine ecology and management of marine ecosystems. Emerging issues. Three hours lecture each week. A three-day field trip. *Prerequisite: ENCO 203.*

ENCO 206 Environmental Stress on Biota 3 Credits

Categories of environmental stressors: physical, biological; eco-physiological stressors on growth and productivity; ecosystem effect by stressors; resistance- threshold tolerance, stress tolerance in plant and animals; environmental stress at ecosystem level; ecotoxicology; mining as an environmental stress (case studies on Fluorspar, Kaptumo mines); ecological risk assessment- assessment end point, measurement end point, exposure pathway, point or non-point source; restoration ecology. Planned field studies. *Prerequisites: GEOG 101 and ENCO 203.*

ENCO 300 Biometrics and Ecological Techniques 3 Credits

Limnology, fresh water resource management, nitrification, pollution-eutrophication, aquatic bioenergetics. Wetlands-types, functions and its importance, current issues in wetlands utilization, its spatial distribution. Two lecture hours and one three-hour lab each week. A three-day field trip. *Prerequisite: BIOL 286.*

ENCO 320 Wetland Ecology and Conservation 3 Credits

Wetland types-salt marshes, peats, swamps; functions, classification and distribution; formation and development-players of wetlands, engineers (the beaver case); hydrology; hydric soils; plant communities; wetland ecology and services; threats to wetlands, brownification, wetland loss, reclamation, restoration methods; globally important bird areas-endangered species, anthropogenic changes affecting wetlands and wetland dependent species- the case of sitatunga in kingwal wetland. Wetland conservation and management-the Ramsar convention-regulation and policy. Two lecture hours and one three-hour lab each week. Field studies are mandatory. *Prerequisites: ENCO 300 and BIOL 286*

ENCO 306 Biometrics and Ecological Techniques 3 Credits

History of Biometry. Introduction to methods of ecological surveys and techniques. Tools for measuring a wide range of environmental variables. Ecological census techniques for counting plants, insects, fish amphibians, reptiles, mammals and birds. Approaches to integrated natural resource assessment. Types of ecological research; formulating research objectives; conceptual framework; the concept proposal; research methods; measurement scales; sampling unit and frame; sampling procedure, sample size and survey precision; data collection; quality control; Report writing and presentation. *Prerequisites: GEOG 101, BIOL 286 and BIOL 285.*

ENCO 204 Environment, Development and Industrial Management 3 Credits

Definition of terms. Concept of sustainable development: Overview of towns' physical strategic plans; faces and generic causes of underdevelopment: resources and development-riparian lands: gender: development under constraints of investment and social capital. Major rural social institution and social change in rural life. Sociological concepts in rural development. Demographic trends stakeholder participation. Community development, agricultural technology, legal and policy frameworks, MDGs. Concepts of human settlements and population. A historical perspective of human settlement and population. Rural-urban settlement. Human demographic processes, the historical and cultural factors affecting human settlement, their types and evolution and their emergence into industrialised urban areas (Urbanization). Factors affecting size, growth and pattern. Impact of globalisation on human settlement and population, settlement trends in Kenya. Field studies and visits. Three lecture hours and planned field visits. *Prerequisite: ENCO 201.*

ENCO 296 Animal Ecology and Behaviour 3 Credits

This course designed to introduce students to the mechanisms, development and survival value of behavior in animals. The interactions between physiological and ecological factors in shaping behavior are emphasized. Topics covered include the history of the study of animal behavior, genetic analysis of behavior, natural selection and ecological analysis of behavior, learning, nerve cells and behavior, neuroendocrine systems, development of behavior, orientation in space, foraging behavior, reproduction and sexual selection, parental care systems, communication in animals, sociality and dispersion. Each student is required to undertake an individual project. Three lecture hours each week. *Prerequisite: BIOL 286.*

ENCO 301 Climate Change, Environmental Degradation and Management 3 Credits

Global warming, desertification, expansion of ASALs, driving forces and consequence of rise in global temperatures. Historical perspective of environment and development. Global environmental agenda and dimensions. The dynamics of environmental degradation. Use of driving forces, pressures, state, impacts and response (DPSIR) tool. Methods and indicators of physical, chemical and biological degradation assessment. Land degradation and desertification in arid and semi-arid lands. Poverty and environment. Climate change and environmental degradation. Principles of sustainable land management. UNCCD and NAP to combat desertification. Policy and institutional framework for environmental management in Kenya. *Prerequisite* BIOL 286.

ENCO 303 Natural Resource Economics 3 Credits

Ecosystem goods and services valuation, links to livelihood and poverty, overharvesting, pricing and globalization-subsidies, easements. Micro-economics; elementary theory of supply and demand, market and the theory of market structures. Macro-economic; national accounts; circular flow of income (Consumption, Investment and Savings functions), Theory of exchange. Time value of resources and decision-making process. Field Case studies at Kakamega forest. *Prerequisite* BIOL 286.

ENCO 305 Environment and International Relations 3 Credits

Global environmental picture and human development. Relationship between industrial development and environment. Global commons and their transboundary nature (air, water, soil and biodiversity). Management of the environment in the era of globalisation. North - South divide. International conventions and non-binding agreements in respect to the environment and biological diversity-CBD, Rio declaration, UNEP, Codex Alimentaris etc. Global, regional and national responses to global issues of environmental significance. *Prerequisite*: BIOL 286.

ENCO 400 Environmental Risk Assessment 3 Credits

Principles and methods of evaluating toxicity of chemicals: studies in environmental epidemiology; epidemiological control; evaluation of physical accidents; evaluation health risk to progeny associated with exposure to chemicals; aquatic bio-toxins; genetic effects in human populations; tests for carcinogenic and mutagenic chemicals. Promotion and enforcement of environmental health quality standards; collaborative efforts to study the effects of environmental hazards. *Prerequisite*: BIOL 286.

ENCO 401 Environmental Pollution and Control 3 Credits

Environmental health, principles and issues; basic principles of toxicology; Principles of toxic action of chemical substances; Dose response relationships; Exposure pathways, metabolism and storage of toxic substances; Carcinogenicity, mutagenicity and teratogenicity; Immune system and reproductive defects, Methods of estimating exposure; physiologic health effects of toxicants, food related diseases, Housing and hazards of poor housing, Microbial agents of exposure and ionising radiation, legal systems in Environmental health, Public Health Act; EMCA. The concept of environmental degradation and pollution. Classification of pollutants. Air pollution, the ozone layer depletion. Nuclear and geothermal pollution. Alternative sources of fuel. Water pollution, industrial domestic and agricultural sources. Thermal discharges and oil spill control or water

pollution. Solid waste disposal and land degradation. The State of environmental pollution in Kenya, market-based instruments for pollution control. weekly visits to sites and a three-day field trip is mandatory. *Prerequisite*: ENCO 400.

ENCO 402 Environmental Planning and Management 3 Credits

Time value of resources: investment analysis of environment control methods and projects: measure of project worth. Cost benefit analysis: environmental project identification, design, organisation, monitoring and evaluation. Institutional frameworks. National Environmental Planning and Management issues in Kenya. Institutional framework. Role of government agencies. Role of local authorities. Civil society. National Environment secretariat. National Environmental Action Plan (NEAP). Legislation and enforcement. Public interests and Public participation. Challenges facing Africa Sustainable Development in Kenya. *Prerequisite*: BIOL 286.

ENCO 403 Remote Sensing and Geographic Information System (GIS) 3 Credits

Introduction to GIS. Maps and Map analysis. The use of object-oriented software to present environmental data. Raster and Vector-based GIS. GIS applications in urban rural and urban planning. GIS applications in resource management. *Prerequisite*: BIOL 286.

ENCO 404 Environmental Law and Policy 3 Credits

Principles of law with particular reference to environment. Legal process governing agricultural and industrial pollution; specific legal environmental acts and statutes in Kenya: Introduction to international environmental law. Conservation ethics, resource access, land tenure. A visit to the environmental court by students. *Prerequisite*: BIOL 286.

ENCO 405 Environmental Impact Assessment and Audit 3 Credits

Introduction to Environmental Impact Assessment. Impact assessment processes. Impact identification measurement. Evaluation and mitigation. Methods of impact assessment and preparation of environmental impact statements. Origins, transport, reactions, effects and fates of chemical substances in water, air, terrestrial and living environments; Methods to identify the human and social consequences of human-made alterations in the natural and physical environment. Systematic appraisal of the impacts on the day-to-day quality of life of persons and communities whose environment is affected by a development or policy change. Environmental Policy Analysis. Field and laboratory measurements of chemical species in air, soil and water. *Prerequisite*: ENCO 400

GEOG 101 Physical Environment and Land Use Systems 3 Credits

Major features of the earth, geomorphological process and features (volcanicity, denudation, faulting, folding, weathering process and glaciation. Atmospheric composition and structure. Hydrological cycle and their estimation. Weather elements and their measurements. Climate and climate classification. Characteristics and factors affecting climate. Global climate changes, causes, effects and control. General circulation between the atmospheric and ocean masses. Laws of atmospheric motion and development of general circulation models (CGPs). Coastal features. Land use systems and classification -fundamental environmental factors affecting productivity of land: geological-

soil inter-relationships, soil water relations. Comprehensive classification of soil, Philosophies of land classification, use of soil survey reports. Soil site studies and environmental approaches for land capability - classification. Multiple use evaluations for various land-uses. Land evaluation. Farming Systems analysis. Land use planning. Land use in Kenya /zoning.

ZOOL 310 Comparative Vertebrate Anatomy **3 Credits**

Comparative anatomy of the chief organ systems of the major classes of vertebrates from cephalochordates to mammals. Organ systems compared will include skeletal, muscular, nervous, respiratory, cardiovascular, digestive, and reproductive systems. The laboratory sessions will compare organ systems of the major classes of vertebrates, these organs will include skeletal, muscular, nervous, respiratory, cardiovascular, digestive, and reproductive systems. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 153 or BIOL 156.*

ZOOL 322 Invertebrate Zoology **3 Credits**

This course deals with the study of Invertebrates and its classification, the functional significance of their structural features and the relation of the invertebrates to the environment. The laboratory will emphasize on classification, functional significance of their structural features and the relation of the invertebrates to the environment. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 153 or BIOL 156.*

ZOOL 336 Ornithology **3 Credits**

This course deals with the study of the Biology of birds. Topics include the morphology, taxonomy, life history, distribution, ecology, behavior and economic importance of birds. Field and laboratory work include the observation and identification of birds. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 153 or BIOL 156.*

ZOOL 338 Mammalogy **3 Credits**

This course is a study of the biology of mammals. Topics include the morphology, taxonomy, life history, distribution, ecology and behavior of mammals. Field and laboratory work include the observation, collection and identification of mammals. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 153/BIOL 156.*

ZOOL 342 Entomology **3 Credits**

This course is an introductory study of the fundamental aspects of insect Biology including the morphology, anatomy, physiology, development, behavior and systematics of major insect orders. The ecological factors that influence insect distribution, the value of insects in scientific research as well as their importance in agriculture and medicine are emphasized. Field and laboratory work involve the collection and identification of insects to the family level. Two lecture hours and one three-hour laboratory per week. *Prerequisites: BIOL 153 or BIOL 156.*

ZOOL 365 Histology **3 Credits**

This course deals with the study of microscopic anatomy, cytology and ultrastructure of tissues and organ systems are correlated with function. Emphasis is on normal tissue of vertebrates. Laboratories emphasize the identification of different cell and tissue types. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 153 or BIOL 156.*

ZOOL 383 Animal Behavior **3 Credits**

This course designed to introduce students to the mechanisms, development and survival value of behavior in animals. The interactions between physiological and ecological factors in shaping behavior are emphasized. Topics covered include the history of the study of animal behavior, genetic analysis of behavior, natural selection and ecological analysis of behavior, learning, nerve cells and behavior, neuroendocrine systems, development of behavior, orientation in space, foraging behavior, reproduction and sexual selection, parental care systems, communication in animals, sociality and dispersion. Each student is required to undertake an individual project. Three lecture hours each week. *Prerequisite: BIOL 153 or BIOL 156.*

ZOOL 360 Parasitology and Immunology **3 Credits**

Introduction to parasitism and related phenomena, adaptation to parasitic modes of life and host-parasitic relationships. The classification, morphology and life cycles of protozoan, helminth and arthropod parasites of medical and veterinary importance. Physiology and biochemistry of parasites, methods of transmission and major arthropod vectors and intermediate hosts of parasites. Epidemiology, diagnosis, treatment and control of parasitic infections, immunology of infections. Allergy/Hypersensitivity, types of hypersensitivity reactions, autoimmunity and origins of autoimmune diseases. Non-parasitic disease-causing organisms such as bacteria, fungi and viruses. Laboratory topics will include, laboratory identification and classification of common human and animal parasites. Two lecture hours and one three-hour laboratory per week. *Prerequisite: BIOL 153 or BIOL 156.*

ZOOL 448 Developmental Biology **3 Credits**

This course explores the study of descriptive and experimental animal embryology, and molecular aspects of development. Topics covered include gametogenesis, fertilization, cleavage, gastrulation, organogenesis, differentiation, molecular control of developmental processes, and aspects of experimental embryology. The laboratory deals with gametogenesis, cleavage, gastrulation and organogenesis with special emphasis on chick development. Two lecture hours and one three-hour laboratory per week. *Prerequisites: BIOL 335 and BIOL 299.*

ZOOL 464 Systems Physiology **4 Credits**

This course explores the functional processes used by animals in adjusting to their external environment and controlling their internal environment. Emphasis is placed on major organ systems and their functional interactions. Specific topics include respiratory physiology, blood circulation, thermoregulation, water and ion balance, excretion, muscle physiology and nervous system function. The laboratory gives practical experience with the techniques and apparatus used in physiological studies. Three lecture hours and one three-hour laboratory per week. *Prerequisites: BIOL 335 and PHYS 165 recommended.*

FACULTY

Okerio, J., PhD. Ag. Head of Department
Abuto, E., MSc.
Atuya, G., MSc.
Bakker, D., MSc., PhD
Chebos, C., MSc., PhD in progress
Francis, P., PhD.
Okongo R, MSc, PhD in progress.
Kittur, A., MSc.
Magut, H., MSc., PhD in progress
Kipkogei M, MSc, PhD in progress
Mitaki, R., MSc., PhD in progress
Odero E, MSc, PhD in progress
Okiro J, MSc, PhD
Sande E., MSc., PhD in progress

Teaching Assistants

Onkoba, E., BSc., MSc in progress
Rono, F., BSc., MSc in progress
Rotich, J., BSc., MSc in progress

Email: hod_mathematicalsciences@ueab.ac.ke

PHILOSOPHY

The Department of Mathematics, Chemistry and Physics operates on the UEAB worldview, which holds that God is the Creator, Sustainer of the universe, life and is the source of true knowledge. The entrance of sin caused man's alienation from God; therefore, the educative process in the Department of Mathematics, Chemistry and Physics seeks to restore the relationship of men and women with God by providing an avenue for students to be exposed to new and relevant information that will enhance their ability to analyze problems and think critically. This leads students into studying the composition, structure and properties of matter and how it interacts with energy to bring about physical, chemical and biochemical changes. And whatever knowledge and skills they acquire can be oriented towards further development of their mental, spiritual, and physical powers.

MISSION

The mission of the Department of Mathematics, Chemistry, and Physics is to provide and advance wholistic Christian quality education which develops and prepares students with the knowledge in mathematics, chemistry and physics understanding, problem-solving skills, and dispositions that enable them to excel in their chosen careers; increasing mathematical and scientific knowledge through publication and presentation; supporting the broader education community and mentoring others for generous service through a committed Christian life.

VISION

The Department of Mathematics, Chemistry, and Physics envisions being a center of excellence in higher education and research producing world class graduates in mathematics, chemistry, physics and applied statistics equipped with moral virtues towards global competitiveness. To achieve this vision, the department is committed to providing a course of study which combines mental, spiritual and physical engagement that are high-quality, innovative and intellectually challenging.

OBJECTIVES

1. To bring to the attention of the students the role of mathematics, chemistry, and physics in understanding current global problems such as food security, energy, natural resources, health and management of the environment.
2. To prepare students for careers in the industry, in research institutions and in educational institutions at all levels.
3. To provide the necessary mathematical, physics, and chemical backgrounds for students majoring in Agriculture, Biology, Health Sciences, Nutrition, Earth Sciences and Technology.
4. To lay the foundation for graduate studies in various fields of mathematics, chemistry, and physics.
5. To impart chemical laboratory skills on how chemical materials are synthesized, purified, analyzed, stored and how their chemical and physical properties are determined.
6. To give students the necessary mathematical, physics, and chemical knowledge that can be used in decision making in managerial careers and in other disciplines hitherto unlearned.

DEGREES OFFERED BY THE DEPARTMENT

1. Bachelor of Science in Chemistry
 - a. Analytical Chemistry Option
 - b. Analytical Chemistry with Management Option
 - c. Biochemistry Option
 - d. General Chemistry Option
 - e. Industrial Chemistry Option
 - f. Industrial Chemistry with Management Option
2. Bachelor of Science in Mathematics
3. Bachelor of Science in Physics
4. Bachelor of Science in Geo Physics
5. Minor in Applied Statistics
6. Minor in Chemistry
 - a. Minor in Analytical Chemistry
 - b. Minor in Biochemistry
 - c. Minor in General Chemistry
 - d. Minor in Industrial Chemistry
7. Minor in Mathematics
8. Minor in Physics

EXPECTED LEARNING OUTCOMES FOR CHEMISTRY

1. To bring to the attention of the students the role of chemistry in understanding current global problems such as food security, energy, natural resources, health and management of the environment.
2. To prepare students for careers in the chemical industry, in research institutions and in educational institutions at all levels.
3. To provide the necessary chemical background for students majoring in Agriculture, Biology, Health Sciences, Nutrition, Earth Sciences and Technology.
4. To lay the foundation for graduate studies in Chemistry and related fields
5. To impart chemical laboratory skills on how chemical materials are synthesized, purified, analyzed, stored and how their chemical and physical properties are determined.
6. To give students the necessary chemical knowledge that can be used in decision making in managerial careers and in other disciplines hitherto unlearned.

EXPECTED LEARNING OUTCOMES FOR MATHEMATICS

By the end of the degree program in mathematics, the student should be able to:

1. Define the terms: logic, mathematics, numbers, velocity, time, mass, weight, force, energy, and work;
2. Describe the origins and development of mathematics as academic area of study;
3. Relate the mathematical concepts and designs as demonstrated in God's creation throughout the universe;
4. Explain derivatives of functions and their antiderivatives;
5. Explain equations of straight line, conics, tangents and algebraic curves;
6. Discuss the relationship between mathematical theory and logic;
7. Solve linear and non-linear equations;
8. Prove mathematical theorems;
9. Construct linear and non-linear mathematical models;
10. Analyze the fitness of curves, lines, and charts;
11. Illustrate the use of various mathematical software programs;
12. Carry out and report results of a scientific research.

EXPECTED LEARNING OUTCOMES FOR APPLIED STATISTICS

By the end of the degree program in mathematics, applied statistics and physics, the student should be able to:

1. Describe the origins and development of statistics as academic area of study;
2. Relate the statistical concepts and designs as demonstrated in God's creation throughout the universe;
3. Explain derivatives of functions and their antiderivatives;
4. Test statistical hypotheses using descriptive and inferential statistics;
5. Analyze and interpret statistical data using computer program packages;
6. Analyze the fitness of curves, lines, and charts;
7. Illustrate the use of various statistical software programs;
8. Carry out and report results of a scientific research.

EXPECTED LEARNING OUTCOMES FOR PHYSICS

By the end of the degree program in physics, the student should be able to:

1. Define the terms: acceleration, gravity, velocity, time, mass, weight, force, energy, and work;
2. Describe the origins and development of physics as academic area of study;
3. Relate the physics concepts and designs as demonstrated in God's creation throughout the universe;
4. Explain derivatives of physics functions and their antiderivatives;
5. Discuss the relationship between Physics theory and logic;
6. Discuss the concept of relativity, Lagrangian mechanics, and crystal structure;
7. Demonstrate how to generate energy using different modes;
8. Illustrate the use of various scientific software programs;
9. Carry out and report results of a scientific research.

CAREER OPPORTUNITIES

Chemistry

The graduates in Chemistry will find job opportunities in manufacturing and processing industries, mining and petroleum industries, research institutions, educational institutions and self employment.

Math and Applied Statistics

A degree in math can take you just about anywhere you want to go in life because studying mathematics strengthens your ability to think carefully, clarify concepts, solve problems, and apply analytical tools. Choosing a degree in mathematics is one of the best career move you can make.

Physics

The graduates in Physics will find job opportunities in manufacturing and processing industries, mining and petroleum industries, electricity and power generation plants, applied technology firms, Bureau of Standards, Radiation Companies, Aviation Technology, research institutions, educational institutions, and many more. Others may go for further studies in the different areas of physics depending on the specialization. Moreover, skills acquired in physics can be used in job creation.

Summary

In summary, our graduates are destined to work in the education sector, industry, finance sector, software analyst, operation research analyst, modeling and simulation analyst, actuary, the private sector and many more. Other may go further studies in the different areas of mathematics, chemistry, physics and statistics.

ENTRANCE REQUIREMENTS

DIRECT ENTRY

Chemistry

The general entrance requirements for the university must be satisfied. The student must have attained at least a C+ (plus) in Chemistry / Physical Science and C (plain) or above in either Mathematics or Physics in KCSE or its equivalent. In addition, the student must have attained at least a C (plain) in Any One of the Following Vocational Skill: courses;

1. Biology or Biological Sciences
2. Geography
3. Agriculture
4. Business studies

Students entering with an 'A' level principal pass in Chemistry and in Mathematics or Physics or Biology may be considered in the Chemistry program

Those who took secondary school Chemistry and earned a C+ but lacked a C (plain) in either Mathematics or Physics can take COSC 111 and must attain a grade of C (plain) to clear the deficiency.

NOTE: Those who may not have had an exposure to secondary school chemistry must take CHEM 111 and pass with a minimum grade of C+ (plus).

Physics

The general entrance requirements for the university must be satisfied.

1. Be a holder of a KCSE (or equivalent qualifications) certificate

with a minimum aggregate of C+. In addition, a student must have passed with the minimum grade indicated in each of the following subjects:

- i. Physics or Physical Science C+
 - ii. Mathematics C (plain)
 - iii. English/Kiswahili C
 - iv. Chemistry/Biology or Biological Science/Geography C (plain)
2. Have a minimum of 2 principal passes in science subjects in Kenya Advanced Certificate of Education (KACE), one of which must be Physics.
 3. Candidates who may have attained C+ and above in the Mean grade and Physics or Physical science but may not have fulfilled the other conditions in (1.) above may be considered for admission provided they provide evidence of having undertaken and passed with a minimum of Credit relevant bridging courses from an institution recognized by the Kenya National Examination Council.
 4. A minimum grade of C+ (plus) in Geography at KCSE or equivalent is mandatory for a geophysics specialization.
 5. A minimum grade of C+ (plus) in physics and a C (Plain) in Mathematics at KCSE or equivalent for a minor in physics.

Mathematics

The minimum entrance requirements are the following:

1. In addition to meeting the minimum university entrance requirements, applicants must have a grade of C+ (plus) in mathematics in the KCSE or its equivalent.
2. A minimum grade of C (Plus in COSC 150 for a minor in Statistics for non mathematics major students.
3. A minimum grade of C+ (plus) in the required mathematics course in their respective degree program for inter-departmental transfer

INTERDEPARTMENTAL TRANSFER

Chemistry

The general university requirements for interdepartmental transfer must be satisfied. In addition, the students wishing to transfer to chemistry must have at least C grade in CHEM 121 and C+ in either MATH 100 or COSC 111.

Math and Physics

The general university requirements for interdepartmental transfer must be satisfied. In addition, students admitted into other degree programs but wishing to enter one of the Mathematics program options can do an interdepartmental transfer into Mathematics provided, they have

1. An average minimum grade of at least a C+ (plus) in either MATH 121, MATH 127, COSC 111 or MATH 113, for BSc. Mathematics and Minor in Mathematics;
2. An average minimum grade of at least a C+ (plus) in PHYS 155 for BSc Physics or C+ (plus) in PHYS 100 for a minor in Physics.
3. An average minimum grade of at least a C+ (plus) in COSC 150 for minor in applied statistics.

Entrance Requirements for Other Departments (Bridging Course) for Chemistry

Those students who want to take Chemistry courses and require a C+ (plus) or C (plain) in their department's requirement should take CHEM 111 as bridging course and pass with a minimum grade of C+ (plus).

Upgrading Students for BSc Chemistry

This program is prepared to meet the needs of chemistry professionals who hold diploma qualifications in chemistry and related areas. The upgrading students can choose any option in the BSc Chemistry courses. The upgrading program is expected to take 2-3 years to complete.

Upgrading Students for BSc Physics

A Candidate must satisfy any of the following minimum requirements:

- a) Be a holder of a Diploma in Physics, Chemistry and Mathematics, Electrical engineering, Mechanical engineering, Petroleum geoscience, geology, Earth science, Environmental science, or Environmental Engineering from any other institution, that is recognized by the University Senate, OR
- b) Be a holder of any other equivalent qualification recognized by the government of Kenya and the University senate.
- c) Diploma holders with a Pass will be eligible to enter year I and those with Credit and above will be eligible to enter year II.

Entrance Requirements for Upgrading Students

The applicant must hold at least a pass in diploma in a related course from a recognized institution.

Credit Transfer From Other Recognized Institutions

A student wishing to transfer some courses may do so by following the university's credit transfer procedures. A total of 30 lower division credits can be transferred. Those students seeking for credit transfer or course exemption must have attained a minimum grade of C+ (plus) in the equivalent course.

Challenge Exams

A total of 10 credits can be challenged. University regulations apply.

GRADUATION REQUIREMENTS

1. Bachelor of Science in Chemistry - Analytical Chemistry Option

- a. A student must complete a minimum of 136 credit hours with an overall GPA of at least 2.00.
- b. A minimum grade of C (Plain) is required in core, concentration and elective courses with a GPA of at least 2.25
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.00.

2. Bachelor of Science in Chemistry – Analytical Chemistry with Management Option

- a. A student must complete a minimum of 144 credit hours with an overall GPA of at least 2.00
- b. A minimum grade of C (plain) is required in core, concentration and elective courses with a GPA of at least 2.25
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.0

3. Bachelor of Science in Chemistry – Biochemistry Option

- a. A student must complete a minimum of 141 credit hours with an overall GPA of at least 2.00 is required

- b. A minimum grade of C (plain) is required in core, concentration and elective courses with a GPA of at least 2.25
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.00

4. Bachelor of Science in Chemistry – General Chemistry Option

- a. A student must complete a minimum of 140 credit hours with an overall GPA of at least 2.00
- b. A minimum grade of C (plain) is required in core, concentration and elective courses with a GPA of at least 2.25
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.00.

5. Bachelor of Science in Chemistry - Industrial Chemistry Option

- a. A student must complete a minimum of 137 credit hours with an overall GPA of at least 2.00
- b. A minimum grade of C (plain) is required in core, concentration and elective courses with a GPA of at least 2.25
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.00.

6. Bachelor of Science in Chemistry - Industrial Chemistry with Management Option

- a. A student must complete a minimum of 142 credit hours with an overall GPA of at least 2.00.
- b. A minimum grade of C (plain) is required in core, concentration and elective courses with a GPA of at least 2.25.
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.00.

7. BSc in Mathematics

- a. A student must complete 140 or 141 credit hours and an overall GPA of atleast 2.00
- b. A minimum grade of C- (minus) is required in core courses with a GPA of at least 2.25
- c. A student must complete 15 credits in elective courses with a GPA of 2.25 and above with no grade less than a C-
- d. A minimum grade of C- (minus) is required cognate courses with a GPA of at least 2.00

8. Bachelor of Science in Physics

- a. A student must complete a minimum of 142 credit hours with an overall GPA of at least 2.00.
- b. A minimum grade of C (Plain) is required in core and elective courses with a GPA of at least 2.25.
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.0.
- d. Conditions in the Academic Bulletin of admission shall apply for the General Education Requirements courses

9. Bachelor of Science in Physics-Geophysics Option

- a. A student must complete a minimum of 143 credit hours with an overall GPA of at least 2.00.
- b. A minimum grade of C (plain) is required in core courses with a GPA of at least 2.25.
- c. A minimum of C- (minus) is required for cognates with a GPA of 2.0.
- d. Conditions in the Academic Bulletin of admission shall apply for the General Education Requirements courses.

10. Minor in Analytical Chemistry

A student must complete 24 credits with a GPA of 2.00 and above with no grade below C (plain) in core and C- (minus) in cognate courses.

11. Minor in Biochemistry

A student must complete 25 credits with a GPA of 2.00 and above with no grade below C (plain) in core and C- (minus) in cognate courses.

12. Minor General Chemistry

A student must complete 25 credits with a GPA of 2.00 and above with no grade below C (plain) in core and C- (minus) in cognate courses.

13. Minor in Industrial Chemistry

A student must complete 27 credits with a GPA of 2.00 and above with no grade below C (plain) in core and C- (minus) in cognate courses.

13. Minor Mathematics

A student must complete 30 credits with a GPA of 2.00 and above with no grade below C- (minus)

14. Minor Applied Statistics

A student must complete 30 credits with a GPA of 2.00 and above with no grade below C- (minus)

15. Minor in Physics

A student must complete 30 credits with a GPA of 2.00 and above with no grade below C- (minus)

COURSE REQUIREMENTS

BACHELOR OF SCIENCE IN CHEMISTRY (ANALYTICAL CHEMISTRY OPTION)

SUMMARY

General Education Requirements	32
Core	44
Specialization	39
Cognates	15
Electives	6
Total	136 Credits

Students taking Bachelor of Science in Chemistry (Analytical Chemistry Option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2

The following General Education Requirement Course is taken as a core requirement

Code	Course Title	Credits
	Vocational Skills	1

GENERAL EDUCATION REQUIREMENT COURSES

32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1

AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES

44 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 341	Inorganic Chemistry I	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 383	Seminar in Chemistry I	2
CHEM 481	Seminar in Chemistry II	2
Total		44

SPECIALIZATION COURSES

39 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 358	Analytical Food Chemistry	3
CHEM 377	Modern Methods of Chemical Analysis and Synthesis	3
CHEM 411	Industrial Chemistry I	3
CHEM 412	Industrial Chemistry II	3
CHEM 422	Forensic Analytical Chemistry	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 426	Industrial Microbial and Biochemical analysis	3
CHEM 428	Aquatic Chemistry	3
CHEM 430	Biochemical Pharmacology	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		39

COGNATE COURSES

15 Credits

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
Total		15

ELECTIVE COURSES (any 2) 6 Credits

Code	Course Title	Credits
CHEM 255	Colloidal and Surface Chemistry	3
CHEM 381	Metallurgy	3
CHEM 473	Green Chemistry	3

BACHELOR OF SCIENCE IN CHEMISTRY (ANALYTICAL CHEMISTRY OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	12
Core Courses	24
Concentration	37
Cognates	6
Electives	6
Total	87 Credits

General Education Requirement Course Exemptions

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills In Kiswahili	2
LITE 151	Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MATH 101	Pre-calculus	3
PHYS 100	Concepts of Physical Sciences	2
SOCI 121	Principles of Sociology	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills (Any)	1

Core Course Exemptions

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 341	Inorganic Chemistry I	3

Cognate Course Exemptions:

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
MGMT 130	Fundamentals of Managements	3

GENERAL EDUCATION REQUIREMENT COURSES 12 Credits

Code	Course Title	Credits
HLED 110	Health Principles	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		12

CORE COURSES 24 Credits

Code	Course Title	Credits
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	4
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 481	Seminar in Chemistry I	2
CHEM 482	Seminar in Chemistry II	2
Total		24

CONCENTRATION 37 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	4
CHEM 358	Analytical Food Chemistry	3
CHEM 377	Modern Methods of Chemical Analysis and Synthesis	3
CHEM 405	Industrial Chemistry I	3
CHEM 406	Industrial Chemistry II	3
CHEM 422	Forensic Analytical Chemistry	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 454	Aquatic Chemistry	3
CHEM 430	Biochemical Pharmacology	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		37

COGNATE COURSES 6 Credits

Code	Course Title	Credits
STAT 150	Introduction to Probability and Statistics	3
STAT 204	Non-Parametric Statistics	3
Total		6

ELECTIVE COURSES 6 Credits

Code	Course Title	Credits
CHEM 255	Colloidal and Surface Chemistry	3
CHEM 381	Metallurgy	3
CHEM 473	Green Chemistry	3

BACHELOR OF SCIENCE IN CHEMISTRY (ANALYTICAL CHEMISTRY WITH MANAGEMENT OPTION)

SUMMARY

General Education Requirements	32
Core	44
Specialization	39
Cognates	23
Electives	6
Total	144 Credits

Students taking Bachelor of Science in Chemistry (Analytical Chemistry with Management Option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2

GENERAL EDUCATION REQUIREMENT COURSES 32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1

FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES 44 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 341	Inorganic Chemistry I	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 383	Seminar in Chemistry I	2
CHEM 481	Seminar in Chemistry II	2
Total		44

SPECIALIZATION COURSES 39 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 358	Analytical Food Chemistry	3
CHEM 377	Modern Methods of Chemical Analysis and Synthesis	3
CHEM 411	Industrial Chemistry I	3
CHEM 412	Industrial Chemistry II	3
CHEM 422	Forensic Analytical Chemistry	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 426	Industrial Microbial and Biochemical analysis	3
CHEM 428	Aquatic Chemistry	3
CHEM 430	Biochemical Pharmacology	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		39

COGNATE COURSES 23 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
MATH 127	Differential Calculus	3
MATH 227	Integral Calculus	3
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
MGMT 130	Fundamentals of Managements	3

MGMT 231	Human Resource and Management	3
MGMT 475	Production and Operation Management	3
Total		23

ELECTIVE COURSES (any 2) 6 Credits

Code	Course Title	Credits
CHEM 255	Colloidal and Surface Chemistry	3
CHEM 381	Metallurgy	3
CHEM 473	Green Chemistry	3

BACHELOR OF SCIENCE IN CHEMISTRY (ANALYTICAL CHEMISTRY WITH MANAGEMENT OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	12
Core Courses	24
Concentration	37
Cognates	14
Electives	6
Total	95 Credits

General Education Requirement Course Exemptions

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills In Kiswahili	2
LITE 151	Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MATH 101	Pre-calculus	3
PHYS 100	Concepts of Physical Sciences	2
SOCI 121	Principles of Sociology	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills (Any)	1

Core Course Exemptions

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 341	Inorganic Chemistry I	3

Cognate Course Exemptions:

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
MGMT 130	Fundamentals of Managements	3

GENERAL EDUCATION REQUIREMENT COURSES 12 Credits

Code	Course Title	Credits
HLED 110	Health Principles	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		12

CORE COURSES 24 Credits

Code	Course Title	Credits
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	4
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 481	Seminar in Chemistry I	2
CHEM 482	Seminar in Chemistry II	2
Total		24

CONCENTRATION 37 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	4
CHEM 358	Analytical Food Chemistry	3
CHEM 377	Modern Methods of Chemical Analysis and Synthesis	3
CHEM 405	Industrial Chemistry I	3
CHEM 406	Industrial Chemistry II	3
CHEM 422	Forensic Analytical Chemistry	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 454	Aquatic Chemistry	3
CHEM 430	Biochemical Pharmacology	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		37

COGNATE COURSES 14 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
MGMT 231	Human Resource and Management	3
MGMT 475	Production and Operation Management	3
Total		14

ELECTIVE COURSES**6 Credits**

Code	Course Title	Credits
CHEM 255	Colloidal and Surface Chemistry	3
CHEM 381	Metallurgy	3
CHEM 473	Green Chemistry	3

BACHELOR OF SCIENCE IN CHEMISTRY (BIOCHEMISTRY OPTION)

SUMMARY

General Education Requirements	28
Core	44
Specialization	40
Cognates	29
Total	141 Credits

Students taking Bachelor of Science in Chemistry (Biochemistry Option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agriculture Technology	2
BIOL 105	Human Biology	2

GENERAL EDUCATION REQUIREMENT COURSES**28 Credits**

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		28

CORE COURSES**44 Credits**

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 341	Inorganic Chemistry I	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 383	Seminar in Chemistry I	2
CHEM 481	Seminar in Chemistry II	2
Total		44

SPECIALIZATION COURSES**40 Credits**

Code	Course Title	Credits
CHEM 300	Introductory Biochemistry	3
CHEM 311	Protein Biochemistry	3
CHEM 327	Intermediary Metabolism	3
CHEM 346	Applied Biochemistry and Biotechnology	3
CHEM 362	Bioinformatics	3
CHEM 364	Immunochemistry	3
CHEM 471	Industrial Biochemistry	3
CHEM 374	Nutritional Biochemistry	4
CHEM 430	Biochemical Pharmacology	3
CHEM 442	Nucleic Acids and recombinant DNA Technology	3
CHEM 451	Biochemical Techniques	3
CHEM 462	Microbial Biochemistry	3
CHEM 499	Industrial Experience	3
Total		40

COGNATE COURSES**29 Credits**

Code	Course Title	Credits
BIOL 155	Foundation of Biology I	4
BIOL 156	Foundation of Biology II	4
BIOL 293	Cell Biology	3
BIOL 447	Molecular Biology	3
BIOL 299	Genetics	3
CLCS 221	Fundamentals of Clinical Chemistry	3
MATH127	Differential Calculus	3
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
Total		29

BACHELOR OF SCIENCE IN CHEMISTRY (BIOCHEMISTRY OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	12
Core Courses	24
Concentration	40
Cognates	18
Total	94 Credits

General Education Requirement Course Exemptions

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills In Kiswahili	2
LITE 151	Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
MATH 101	Pre-calculus	3
PHYS 100	Concepts of Physical Sciences	2
SOCI 121	Principles of Sociology	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills (Any)	1

Core Course Exemptions

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 341	Inorganic Chemistry I	3

Cognate Course Exemptions:

Code	Course Title	Credits
BIOL 155	Foundation of Biology I	4
BIOL 156	Foundation of Biology II	4

GENERAL EDUCATION REQUIREMENT COURSES**12 Credits**

Code	Course Title	Credits
HLED 110	Health Principles	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		12

CORE COURSES**24 Credits**

Code	Course Title	Credits
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	4
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 481	Seminar in Chemistry I	2
CHEM 482	Seminar in Chemistry II	2
Total		24

CONCENTRATION**40 Credits**

Code	Course Title	Credits
CHEM 300	Introductory Biochemistry	3
CHEM 311	Protein Biochemistry	3
CHEM 327	Intermediary Metabolism	3
CHEM 346	Applied Biochemistry and Biotechnology	3
CHEM 362	Bioinformatics	3
CHEM 364	Immunochemistry	3
CHEM 372	Industrial Biochemistry	3
CHEM 374	Nutritional Biochemistry	4
CHEM 430	Biochemical Pharmacology	3
CHEM 442	Nucleic Acids and recombinant DNA Technology	3
CHEM 451	Biochemical Techniques	3
CHEM 462	Microbial Biochemistry	3
CHEM 499	Industrial Experience	3
Total		40

COGNATE COURSES**18 Credits**

Code	Course Title	Credits
BIOL 293	Cell Biology	3
BIOL 447	Molecular Biology	3
BIOL 499	Genetics	3
CLCS 221	Fundamentals of Clinical Chemistry	3

STAT 150	Introduction to Probability and Statistics	3
STAT 204	Non-Parametric Statistics	3
Total		18

BACHELOR OF SCIENCE IN CHEMISTRY (GENERAL CHEMISTRY OPTION)

SUMMARY

General Education Requirements	32
Core	44
Specialization	46
Cognates	12
Electives	6
Total	140 Credits

Students taking Bachelor of Science in Chemistry (General Chemistry Option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2

GENERAL EDUCATION REQUIREMENT COURSES

32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFT 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES

44 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 341	Inorganic Chemistry I	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 383	Seminar in Chemistry I	2
CHEM 481	Seminar in Chemistry II	2
Total		44

SPECIALIZATION COURSES

46 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 255	Colloidal and Surface Chemistry	3
CHEM 300	Introductory Biochemistry	3
CHEM 345	Synthetic Organic Chemistry	3
CHEM 350	Polymer Chemistry	4
CHEM 362	Bioinformatics	3
CHEM 377	Modern Methods of Chemical Analysis and Synthesis	3
CHEM 384	Coordination Chemistry	3
CHEM 394	Heterocyclic Chemistry and Stereo Chemistry	3
CHEM 425	Electrochemistry	3
CHEM 402	Transition Metal Chemistry	3
CHEM 411	Industrial Chemistry I	3
CHEM 431	Advanced Organic Chemistry	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial experience	3
Total		46

COGNATE COURSES **12 Credits**

Code	Course Title	Credits
MATH 127	Differential Calculus	3
MATH 227	Integral Calculus	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
Total		12

ELECTIVE COURSES (any 2) **6 Credits**

Code	Course Title	Credits
CHEM 424	Pharmaceutical Chemistry	3
CHEM 443	Bioinorganic Chemistry	3
CHEM 473	Green Chemistry	3
CHEM 499	Industrial Experience	3

BACHELOR OF SCIENCE IN CHEMISTRY (GENERAL CHEMISTRY OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	12
Core	24
Specialization	40
Cognates	3
Electives	6
Total	85 Credits

General Education Requirement Course Exemptions

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills In Kiswahili	2
LITE 151	Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
MATH 101	Pre-calculus	3
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2
SOCI 121	Principles of Sociology	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills (Any)	1

Core Course Exemptions

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4

CHEM 231	Physical Chemistry I	3
CHEM 341	Inorganic Chemistry I	3

Cognate Course Exemptions:

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
PHYS 155	General Physics	3

GENERAL EDUCATION REQUIREMENT COURSES **12 Credits**

Code	Course Title	Credits
HLED 110	Health Principles	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		12

CORE COURSES **24 Credits**

Code	Course Title	Credits
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 481	Seminar in Chemistry I	2
CHEM 482	Seminar in Chemistry II	2
Total		24

CONCENTRATION **40 Credits**

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 255	Colloidal and Surface Chemistry	3
CHEM 271	Chemical Thermodynamics and Phase Equilibria	3
CHEM 300	Introductory Biochemistry	3
CHEM 345	Synthetic Organic Chemistry	3
CHEM 339	Polymer Chemistry	4
CHEM 362	Bioinformatics	3
CHEM 384	Coordination Chemistry	3
CHEM 394	Heterocyclic Chemistry and Stereo Chemistry	3
CHEM 402	Transition Metal Chemistry	3
CHEM 405	Industrial Chemistry I	3
CHEM 431	Advanced Organic Chemistry	3
CHEM 470	Chemistry Project	3
Total		40

COGNATE COURSES 12 Credits

Code	Course Title	Credits
STAT 150	Introduction to Probability and Statistics	3
Total		3

ELECTIVE COURSES 6 Credits

Code	Course Title	Credits
CHEM 424	Pharmaceutical Chemistry	3
CHEM 443	Bioinorganic Chemistry	3
CHEM 473	Green Chemistry	3
CHEM 499	Industrial Experience	3

BACHELOR OF SCIENCE IN CHEMISTRY (INDUSTRIAL CHEMISTRY OPTION)

SUMMARY

General Education Requirements	32
Core	44
Specialization	46
Cognates	15
Total	137 Credits

Students taking Bachelor of Science in Chemistry (Industrial Chemistry Option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2

GENERAL EDUCATION REQUIREMENT COURSES 32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3

RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES 44 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 341	Inorganic Chemistry I	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 383	Seminar in Chemistry I	2
CHEM 481	Seminar in Chemistry II	2
Total		44

SPECIALIZATION COURSES 46 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 303	Industrial Organic Chemistry	3
CHEM 316	Unit Operation, Process Control and Industrial Systems	3
CHEM 337	Fluid Flow, Material and Energy Transfer	3
CHEM 350	Polymer Chemistry	4
CHEM 471	Industrial Biochemistry	3
CHEM 381	Metallurgy	3
CHEM 411	Industrial Chemistry I	3
CHEM 412	Industrial Chemistry II	3
CHEM 420	Industrial Waste Management	3
CHEM 424	Pharmaceutical Chemistry	3

CHEM 434	Industrial Catalysis	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		46

COGNATE COURSES

15 Credits

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
PHYS 155	General Physics	3
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
Total		15

BACHELOR OF SCIENCE IN CHEMISTRY (INDUSTRIAL CHEMISTRY OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	12
Core Courses	24
Concentration	47
Cognates	6
Total	89 Credits

General Education Requirement Course Exemptions

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills In Kiswahili	2
LITE 151	Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
MATH 101	Pre-calculus	3
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2
SOCI 121	Principles of Sociology	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills (Any)	1

Core Course Exemptions

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 341	Inorganic Chemistry I	3

Cognate Course Exemptions:

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
PHYS 155	General Physics	3

GENERAL EDUCATION REQUIREMENT COURSES

12 Credits

Code	Course Title	Credits
HLED 110	Health Principles	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		12

CORE COURSES

24 Credits

Code	Course Title	Credits
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 481	Seminar in Chemistry I	2
CHEM 482	Seminar in Chemistry II	2
Total		24

CONCENTRATION

47 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 303	Industrial Organic Chemistry	3
CHEM 316	Unit Operation, Process Control and Industrial Systems	3
CHEM 337	Fluid Flow, Material and Energy Transfer	3
CHEM 339	Polymer Chemistry	4
CHEM 372	Industrial Biochemistry	3
CHEM 381	Metallurgy	3
CHEM 405	Industrial Chemistry I	3
CHEM 406	Industrial Chemistry II	3
CHEM 420	Industrial Waste Management	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 434	Industrial Catalysis	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		47

COGNATE COURSES

6 Credits

Code	Course Title	Credits
STAT 150	Introduction to Probability and Statistics	3
STAT 204	Non Parametric Statistics	3
Total		6

BACHELOR OF SCIENCE IN CHEMISTRY (INDUSTRIAL CHEMISTRY WITH MANAGEMENT OPTION)

SUMMARY

General Education Requirements	30
Core	44
Specialization	46
Cognates	23
Total	143 Credits

Students taking Bachelor of Science in Chemistry (Industrial Chemistry with Management Option) are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MGMT 103	Basic Management and Entrepreneurial Skills	2
COSC 111	Computational Mathematics I	3
PHYS 100	Concepts of Physical Sciences	2
ENVI 227	Environment and Society	2
AGRI 105	Principles of Agriculture Technology	2
BIOL 105	Human Biology	2

GENERAL EDUCATION REQUIREMENT COURSES

30 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1

FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		30

CORE COURSES

44 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic Structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 341	Inorganic Chemistry I	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 383	Seminar in Chemistry I	2
CHEM 481	Seminar in Chemistry II	2
Total		44

SPECIALIZATION COURSES

46 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 303	Industrial Organic Chemistry	3
CHEM 316	Unit Operation, Process Control and Industrial Systems	3
CHEM 337	Fluid Flow, Material and Energy Transfer	3
CHEM 350	Polymer Chemistry	4
CHEM 471	Industrial Biochemistry	3
CHEM 381	Metallurgy	3
CHEM 411	Industrial Chemistry I	3
CHEM 412	Industrial Chemistry II	3
CHEM 420	Industrial Waste Management	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 434	Industrial Catalysis	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		46

COGNATE COURSES

23 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
MATH 127	Differential Calculus	3
MATH 227	Integral Calculus	3
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
MGMT 130	Fundamentals of Managements	3
MGMT 231	Human Resource and Management	3
MGMT 475	Production and Operation Management	3
Total		23

BACHELOR OF SCIENCE IN CHEMISTRY (INDUSTRIAL CHEMISTRY WITH MANAGEMENT OPTION) FOR UPGRADERS

SUMMARY

General Education Requirements	12
Core Courses	24
Specialization	47
Cognates	14
Total	97 Credits

General Education Requirement Course Exemptions

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
KISW 114	Language Skills In Kiswahili	2
LITE 151	Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
MGMT 103	Basic Management	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
BIOL 105	Human Biology	2
MATH 101	Pre-calculus	3
ENVI 227	Environment and Society	2
PHYS 100	Concepts of Physical Sciences	2
SOCI 121	Principles of Sociology	2
PSYC 101	Introduction to Psychology	2
	Vocational Skills (Any)	1

Core Course Exemptions

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 205	Atomic structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 341	Inorganic Chemistry I	3

Cognate Course Exemptions:

Code	Course Title	Credits
MATH 127	Differential calculus	3
MATH 227	Integral Calculus	3
MGMT 130	Fundamentals of Managements	3

GENERAL EDUCATION REQUIREMENT COURSES

12 Credits

Code	Course Title	Credits
HLED 110	Health Principles	1
INSY 107/ INSY 108	Information Technology Today/ Information Technology for the Health Professionals	2
RELB 220	Life and Teachings of Jesus	2

RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
Total		12

CORE COURSES

24 Credits

Code	Course Title	Credits
CHEM 201	Environmental Chemistry I	3
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications in Chemistry	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 332	Physical Chemistry II	3
CHEM 342	Inorganic Chemistry II	3
CHEM 419	Environmental Chemistry	3
CHEM 481	Seminar in Chemistry I	2
CHEM 482	Seminar in Chemistry II	2
Total		24

CONCENTRATION

47 Credits

Code	Course Title	Credits
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 303	Industrial Organic Chemistry	3
CHEM 316	Unit Operation, Process Control and Industrial Systems	3
CHEM 337	Fluid Flow, Material and Energy Transfer	3
CHEM 339	Polymer Chemistry	4
CHEM 372	Industrial Biochemistry	3
CHEM 381	Metallurgy	3
CHEM 405	Industrial Chemistry I	3
CHEM 406	Industrial Chemistry II	3
CHEM 420	Industrial Waste Management	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 434	Industrial Catalysis	3
CHEM 470	Chemistry Project	3
CHEM 499	Industrial Experience	3
Total		47

COGNATE COURSES

14 Credits

Code	Course Title	Credits
ACCT 110	Bookkeeping and Accounting	2
STAT 150	Introduction to Probability and Statistics	3
STAT 204	Non-Parametric Statistics	3
MGMT 231	Human Resource and Management	3
MGMT 475	Production and Operation Management	3
Total		23

MINOR IN ANALYTICAL CHEMISTRY

SUMMARY

Core	26
Total	26 Credits

CORE COURSES 26 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 205	Atomic Structure and Bonding	3
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 251	Analytical Chemistry I	3
CHEM 252	Analytical Chemistry II	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 358	Analytical Food Chemistry	3
Total		26

MINOR IN BIOCHEMISTRY

SUMMARY

Core	26
Total	26 Credits

CORE COURSES 26 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 254	Laboratory Practice and Safety	2
CHEM 300	Introductory Biochemistry	3
CHEM 309	Laboratory Experience	1
CHEM 311	Protein Biochemistry	3
CHEM 362	Bioinformatics	3
CHEM 424	Pharmaceutical Chemistry	3
CHEM 346	Applied Biochemistry and Biotechnology	3
Total		26

MINOR IN GENERAL CHEMISTRY

SUMMARY

Core	26
Total	26 Credits

CORE COURSES 26 Credits

Code	Course Title	Credits
CHEM 121	General chemistry I	4
CHEM 205	Atomic Structure and Bonding	3
CHEM 212	Organic chemistry II	4
CHEM 231	Physical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 300	Introductory biochemistry	3
CHEM 309	Laboratory Experience	1
CHEM 341	Inorganic chemistry I	3
CHEM 424	Pharmaceutical Chemistry	3
Total		26

MINOR IN INDUSTRIAL CHEMISTRY

SUMMARY

Core	26
Total	26 Credits

CORE COURSES 26 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 211	Organic Chemistry I	4
CHEM 231	Physical Chemistry I	3
CHEM 251	Analytical Chemistry I	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 309	Laboratory Experience	1
CHEM 316	Unit Operation, Process Control and Industrial Systems	3
CHEM 337	Fluid Flow, Material and Energy Transfer	3
CHEM 411	Industrial Chemistry I	3
Total		26

BACHELOR OF SCIENCE IN MATHEMATICS

SUMMARY

General Education Requirements	32
Core	72
Cognates	21/22
Electives	15
Total	140/141 Credits

Students taking Bachelor of Science in Mathematics and Minors in Physics and Applied Statistics are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
MATH 100/ COSC 111	Foundations of Mathematics/ Precalculus	3
PHYS 100	Concepts of Physical Sciences	2
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
	Vocational Skills	1

GENERAL EDUCATION REQUIREMENT COURSES 32 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1

AGRI 105	Principles of Agricultural Technology	2
HLED 110	Health Principles	1
ENVI 227/ CHEM 200/ TCED231	Environment and Society/ Environmental Science/ Safety Education	2
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOC1 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2

Any One of the Following Vocational Skill:

AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		32

CORE COURSES

72 Credits

Code	Course Title	Credits
MATH 121	Discrete Mathematics	3
MATH 124	Basic Mathematics and Analytical Geometry	3
MATH 127	Differential Calculus	3
MATH 150	Linear Algebra I	3
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
STAT 205	Probability Theory and its Applications	3
MATH 227	Integral Calculus	3
MATH 240	Real Analysis I	3
MATH 248	Ordinary Differential Equations I	3
MATH 274	Complex Analysis I	3
MATH 327	Vector Analysis	3
MATH 401	Computer Applications in Mathematics	3
MATH 330	Operations Research	3
MATH 336	Numerical Analysis I	3
MATH 342	Boolean Algebra and Its Applications	3
MATH 346	Group Theory	3
MATH 405	Number Theory	3
MATH 371	Linear Algebra II	3
MATH 414	Topology	3
MATH 415	Measures Theory and Integration	3
MATH 445	Partial Differential Equations	3
MATH 480	Functional Analysis	3
MATH 490	Industrial experience	3
MATH 499	Mathematics Project	3
Total		72

COGNATE COURSES

21/22 Credits

Students should take courses from either GROUP I, GROUP II or from Group III

GROUP I

22 Credits

Code	Course Title	Credits
CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 231	Physical Chemistry I	3
COSC 161	Programming in C Language	3
Total		22

GROUP II

21 Credits

Code	Course Title	Credits
PHYS 160	Fundamentals of Mechanics	3
PHYS 165	Heat and Thermodynamics	3
PHYS 180	Introduction to Quantum Physics	3
PHYS 225	Classical Mechanics	3
PHYS 255	Quantum Mechanics	3
COSC 161	Programming in C Language	3
PHYS 155	General Physics	3
Total		21

GROUP III

21 Credits

Code	Course Title	Credits
STAT 207	Regression Analysis	3
STAT 270	Introduction to Econometrics	3
STAT 300	Multivariate Probability Distributions	3
STAT 305	Theory of Estimation	3
STAT 313	Test of Hypothesis	3
STAT 330	Sample Survey	3
COSC 161	Programming in C Language	3
Total		21

ELECTIVE COURSES

15 Credits

Students should select 15 credits from Any One of the Following Vocational Skill: groups

GROUP I : APPLIED MATHEMATICS

Code	Course Title	Credits
MATH 340	Real Analysis II	3
MATH 355	Dynamics	3
MATH 427	Ordinary Differential Equations II	3
MATH 380	Analytic Applied Mathematics	3
MATH 385	Fluid Mechanics	3
MATH 430	Operations Research II	3
MATH 432	Mathematical Modeling	3
MATH 448	Method of Fluid Mechanics	3
MATH 474	Complex Analysis II	3
MATH 436	Numerical Analysis II	3

GROUP II : PURE MATHEMATICS

Code	Course Title	Credits
MATH 340	Real Analysis II	3
MATH 375	Algebraic Structures	3
MATH 345	Graph Theory	3

MATH 354	Ring Theory	3
MATH 408	Differential Geometry	3
MATH 411	Field Theory	3
MATH 483	Coding Theory	3
MATH 427	Ordinary Differential Equations II	3
MATH 436	Numerical Analysis II	3

GROUP III : APPLIED STATISTICS

Code	Course Title	Credits
STAT 308	Operations Research	3
STAT 336	Statistical Quality Control	3
STAT 315	Tests of Hypothesis	3
STAT 400	Stochastic Processes	3
STAT 410	Design and Analysis of Experiments	3
STAT 430	Statistical data Analysis and Design	3
STAT 435	Time Series Analysis	3
STAT 430	Systems Analysis and Design	3
STAT 435	Time Series Analysis	3

MINOR IN MATHEMATICS

SUMMARY

Core	30
Total	30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
MATH 121	Discrete Mathematics	3
MATH 127	Differential Calculus	3
MATH 150	Linear Algebra I	3
MATH 227	Integral Calculus	3
MATH 240	Real Analysis I	3
MATH 248	Ordinary Differential Equations I	3
MATH 274	Complex Analysis I	3
MATH 327	Vector Analysis	3
MATH 336	Numerical Analysis	3
MATH 346	Group Theory	3
Total		30

MINOR IN APPLIED STATISTICS

SUMMARY

Core	30
Total	30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
COSC 150	Applied Statistics in IT	3
STAT 204	Non-Parametric Statistics	3
STAT 205	Probability Theory and Its Applications	3
STAT 207	Regression Analysis	3
STAT 300	Multivariate Probability Distributions	3
STAT 313	Test of Hypothesis	3
STAT 330	Sample Survey	3

STAT 336	Quality Control Methods	3
STAT 430	Statistical Data Analysis and Design	3
STAT 490	Special Project in Statistics	3
Total		30

BACHELOR OF SCIENCE IN PHYSICS

SUMMARY

General Education Requirements	36
Core	76
Cognates	25
Electives	4
Total	142 Credits

Students taking Bachelor of Science in Physics are exempted from the following General Education Requirement Courses

Code	Course Title	Credits
PHYS 100	Concept of Physical Sciences	2
COSC 111 MATH 100	Computational Mathematics I/ Foundations of Mathematics	3

GENERAL EDUCATION REQUIREMENT COURSES 36 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2
PSYC 101 / SOCI 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
ENVI 227	Environment and Society	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1

AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		36

CORE COURSES

76 Credits

Code	Course Title	Credits
PHYS 160	Fundamentals of Mechanics	3
PHYS 165	Heat & Thermodynamics	3
PHYS 170	Geometric Optics	3
PHYS 180	Introduction to Quantum Physics	3
PHYS 216	Waves & Oscillations	3
PHYS 217	Mechanics II	3
PHYS 225	Classical Mechanics	3
PHYS 231	Electricity & Magnetism I	3
PHYS 232	Electricity & Magnetism II	3
PHYS 255	Quantum Mechanics	3
PHYS 300	Properties of Matter	3
PHYS 311	Mathematical Physics I	3
PHYS 313	Wave Theory	3
PHYS 317	Thermal Physics II	3
PHYS 324	Statistical Mechanics	3
PHYS 325	Physics and Technology	3
PHYS 335	Physical Optics	2
PHYS 345	Electronics	3
PHYS 410	Nuclear Physics	2
PHYS 411	AC Circuit Theory	3
PHYS 413	Mathematical Physics II	3
PHYS 415	Solid State Physics	3
PHYS 417	Research Methods in Physics	2
PHYS 422	Analogue & Digital Electronics	3
PHYS 424	Electromagnetic Theory	3
PHYS 426	Modern Physics	2
PHYS 428	Research Project	2
Total		76

COGNATE COURSES

26 Credits

Code	Course Title	Credits
CHEM 213	Organic Chemistry	2
CHEM 223	Physical Chemistry	3
MATH 124	Basic Mathematics and Analytical Geometry	3
MATH 127	Differential Calculus	3
MATH 150	Linear Algebra 1	3
MATH 227	Integral Calculus	3
MATH 248	Ordinary Differential Equation	3
MATH 327	Vector Analysis	3
COSC 150	Applied Statistics in IT	3
Total		26

ELECTIVE COURSES (any 2)

4 Credits

Code	Course Title	Credits
PHYS 322	Computational Physics	2
PHYS 429	Laser & Maser Physics	2
PHYS 419	Electrodynamics	2
PHYS 420	Microprocessor Applications	2
PHYS 315	Atomic Physics	2

BACHELOR OF SCIENCE IN PHYSICS (GEOPHYSICS OPTION)

SUMMARY

General Education Requirements	34
Core	52
Cognates	20
Specialization	33
Electives	4
Total	143 Credits

Students taking Bachelor of Science in Physics (Geophysics Option) are exempted from the following General Education Requirement Course

Code	Course Title	Credits
PHYS 100	Concept of Physical Sciences	2
COSC 111	Computational Mathematics I/	3
MATH 100	Foundations of Mathematics	
ENVI 227	Environment and Society	2

GENERAL EDUCATION REQUIREMENT COURSES

34 Credits

Code	Course Title	Credits
ENGL 105	Writing Skills	3
ENGL 106	Speech Communication	1
MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2
OFTE 120	Keyboarding	0
KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2
EDUC 215	Introduction to Philosophy of Christian Education	2
PEAC 107	Physical and Recreational Activities	1
AGRI 105	Principles of Agricultural Technology	2
INSY 107/ INSY 108	Information Technology Today/ Information Technology for Health Professionals	2
HLED 110	Health Principles	1
RELB 220	Life and Teachings of Jesus	2
RELH 155	Adventist Heritage	2
RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2
HIST 111 / HIST 119	Concepts of World Civilization/ Issues in Development Studies	2
BIOL 105	Human Biology	2

PSYC 101 / SOC 121 / SWFI 207	Introduction to Psychology/ Introduction to Sociology/ Family Issues	2
MGMT 103	Basic Management and Entrepreneurial Skills	2
Any One of the Following Vocational Skill:		
AGEN 235	Tractor Operations and Maintenance	1
AUTO 100	Personal Auto care	1
AUTO 110	Automobile Driving	1
ELCT 100	Basic Electronics Maintenance	1
FTXD 108	Weaving	1
FTXD 107	Quilting	1
FTXD 121	Creative Fashion Crafts Laboratory	1
FDNT 115	Cooking	1
FDNT 120	Basic Cake Preparation and Cake Decoration	1
WOOD 100	Woodwork	1
MUGR 101	Music Instrument	1
Total		34

CORE COURSES 52 Credits

Code	Course Title	Credits
PHYS 160	Fundamentals of Mechanics	3
PHYS 165	Heat & Thermodynamics	3
PHYS 170	Geometric Optics	3
PHYS 180	Introduction to Quantum Physics	3
PHYS 216	Waves & Oscillations	3
PHYS 217	Mechanics II	3
PHYS 231	Electricity & Magnetism I	3
PHYS 232	Electricity & Magnetism II	3
PHYS 300	Properties of Matter	3
PHYS 311	Mathematical Physics I	3
PHYS 346	Industrial Experience/Field Camp	2
PHYS 410	Nuclear Physics	2
PHYS 411	AC Circuit Theory	3
PHYS 413	Mathematical Physics II	3
PHYS 417	Research Methods in Physics	2
PHYS 419	Electrodynamics	3
PHYS 424	Electromagnetic Theory	3
PHYS 426	Modern Physics	2
PHYS 428	Research Project	2
Total		52

COGNATE COURSES 20 Credits

Code	Course Title	Credits
CHEM 213	Organic Chemistry	2
CHEM 223	Physical Chemistry	3
MATH 124	Basic Mathematics and Analytical Geometry	3
MATH 127	Differential Calculus	3
MATH 227	Integral Calculus	3
MATH 327	Vector Analysis	3
COSC 150	Applied Statistics in IT	3
Total		20

SPECIALIZATION COURSES 33 Credits

Code	Course Title	Credits
PHYS 140	Introductory Geophysics	2
PHYS 233	Introduction to Geology	2
PHYS 240	Introduction to Geochemistry	2
PHYS 242	Physical Processes of the Earth	2
PHYS 244	Geothermics	2
PHYS 246	Earth Materials	2
PHYS 330	Electrical & Electromagnetic Methods	2
PHYS 331	Surveying	2
PHYS 341	Remote Sensing and GIS	3
PHYS 342	Seismic Methods	3
PHYS 348	Gravity & Magnetic Methods	3
PHYS 349	Geophysical Signal Processing	3
PHYS 442	Reservoir Geophysics	2
PHYS 444	Geo-statistics	3
Total		33

ELECTIVE COURSES (Any 2) 4 Credits

Code	Course Title	Credits
PHYS 344	Earth Systems and Atmospheric Physics	2
PHYS 333	Environmental Geophysics	2
PHYS 430	Ground Water Geophysics	2
PHYS 433	Petroleum Geophysics	2

MINOR IN PHYSICS

SUMMARY

Core 30
Total 30 Credits

CORE COURSES 30 Credits

Code	Course Title	Credits
PHYS 155/ PHYS 160	General Physics/ Fundamentals of Mechanics	3
PHYS 165	Heat and Thermodynamics	3
PHYS 170	Geometric Optics	3
PHYS 180	Introduction to Quantum Physics	3
PHYS 216	Waves and Oscillations	3
PHYS 231	Electricity and Magnetism I	3
PHYS 225	Classical Mechanics	3
PHYS 255	Quantum Mechanics	3
PHYS 300	Properties of Matter	3
PHYS 431	Environmental and Renewable Energy Physics I	3
Total		30

Bachelor of Science in CHEMISTRY (ANALYTICAL CHEMISTRY OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	RELH155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3
	PEAC 107	Physical and Recreational Activities	1	0	1	HLED 110	Health Principles	1	0	1
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	CHEM 122	General Chemistry II	3	1	4
	CHEM 121	General Chemistry I	3	1	4	BIOL105	Human Biology	2	0	2
	COSC 150	Applied Statistics in IT	3	0	3	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2
	PHYS 155	General Physics I	2	1	3	MATH 127	Differential Calculus	3	0	3
	Total		18	2	20	Total		18	1	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AGRI 105	Principles of Agriculture Technology	2	0	2	EDUC215	Introduction to Philosophy of Christian Education	2	0	2
	CHEM 251	Analytical Chemistry 1	2	1	3	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	CHEM 212	Organic Chemistry II	3	1	4
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 252	Analytical Chemistry II	2	1	3
	CHEM 231	Physical Chemistry I	2	1	3	CHEM 254	Laboratory Practice and Safety	2	0	2
	MATH 227	Integral Calculus	3	0	3	RELB220	Life and teachings of Jesus	2	0	2
	STAT 204	Non-Parametric Statistics	3	0	3	CHEM 205	Atomic structure and Bonding	2	1	3
						CHEM 221	Computer Applications in Chemistry	2	1	3
	Total		17	3	20	Total		17	4	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	CHEM332	Physical chemistry 2	2	1	3	CHEM 342	Inorganic Chemistry II	2	1	3
	CHEM 309	Laboratory Experience	0	1	1	CHEM 358	Analytical Food Chemistry	2	1	3
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 411	Industrial Chemistry I	2	1	3
		Elective I	3	0	3	CHEM 419	Environmental Chemistry	3	0	3
		Elective II	3	0	3	CHEM 422	Forensic Analytical Chemistry	2	1	3
	CHEM 377	Modern Methods in Chemistry Analysis and Synthesis	2	1	3	CHEM 424	Pharmaceutical Chemistry	2	1	3
	CHEM 383	Seminar in Chemistry I	2	0	2					
	Total		14	4	18	Total		13	5	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	CHEM 412	Industrial Chemistry II	2	1	3	CHEM 499	Industrial Experience	0	3	3
	CHEM 428	Aquatic Chemistry	2	1	3					
	CHEM 430	Biochemical Pharmacology	2	1	3					
	CHEM 481	Seminar in Chemistry II	2	0	2					
	CHEM 470	Chemistry Project	3	0	3					
	CHEM 426	Industrial, microbial and bio. analysis	3	1	3					
	Total		14	4	18	Total		0	3	3

Bachelor of Science in CHEMISTRY (ANALYTICAL CHEMISTRY WITH MANAGEMENT OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELH155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	RELT207	Christian Beliefs	3	0	3
	PEAC 107	Physical and Recreational Activities	1	0	1	HLED 110	Health Principles	1	0	1
	ENGL 105	Writing Skills	3	0	3	INSY107	Information Technology Today	2	0	2
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1
	PSYC 101/ SOC1 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	CHEM 122	General Chemistry II	3	1	4
	CHEM 121	General Chemistry I	3	1	4	BIOL105	Human Biology	2	0	2
	COSC 150	Applied Statistics in IT	3	0	3	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2
	ACCT 110	Book Keeping And Accounting	2	0	2	MATH 127	Differential Calculus	3	0	3
	Total		18	1	19	Total		18	1	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	AGRI 105	Principles of Agriculture Technology	2	0	2	EDUC215	Introduction to Philosophy of Christian Education	2	0	2
	CHEM 251	Analytical Chemistry I	2	1	3	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	CHEM 212	Organic Chemistry II	3	1	4
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 252	Analytical Chemistry II	2	1	3
	CHEM 231	Physical Chemistry I	2	1	3	CHEM 254	Laboratory Practice and Safety	2	0	2
	MATH 227	Integral Calculus	3	0	3	RELB220	Life and teachings of Jesus	2	0	2
	STAT 204	Non-Parametric Statistics	3	0	3	CHEM 205	Atomic structure and Bonding	2	1	3
						CHEM 221	Computer Applications in Chemistry	2	1	3
	Total		17	3	20	Total		17	4	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	MGMT 130	Fundamentals of Management	3	0	3	CHEM 342	Inorganic Chemistry II	2	1	3
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 358	Analytical Food Chemistry	2	1	3
	CHEM 377	Modern Methods in Chemistry Analysis and Synthesis	2	1	3	CHEM 411	Industrial Chemistry I	2	1	3
		Elective I	3	0	3	CHEM 419	Environmental Chemistry	3	0	3
		Elective II	3	0	3	CHEM 422	Forensic Analytical Chemistry	2	1	3
	CHEM 383	Seminar in Chemistry I	2	0	2	MGMT 231	Human Resource Management	3	0	3
	CHEM 332	Physical Chemistry II	2	1	3	CHEM 424	Pharmaceutical Chemistry	2	1	3
	CHEM 309	Laboratory Experience	0	1	1					
	Total		17	4	21	Total		16	5	21
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	CHEM 426	Industrial, microbial and bio. analysis	2	1	3	CHEM 499	Industrial Experience	0	3	3
	CHEM 424	Pharmaceutical Chemistry	2	1	3	CHEM 412	Industrial Chemistry II	2	1	3
	CHEM 428	Aquatic Chemistry	2	1	3					
	CHEM 430	Biochemical Pharmacology	2	1	3					
	CHEM 481	Seminar in Chemistry II	2	0	2					
	CHEM 470	Chemistry Project	3	0	3					
	MGMT 475	Production and Operation Management	3	0	3					
	Total		16	4	20	Total		2	4	6

Bachelor of Science in CHEMISTRY (BIOCHEMISTRY OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELH 155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	HLED 110	Health Principles	1	0	1	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0	BIOL 156	Foundation of Biology II	3	1	4	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	CHEM 122	General Chemistry II	3	1	4	
	CHEM 121	General Chemistry I	3	1	4	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3	
	BIOL 155	Foundation of Biology I	3	1	4						
	Total			19	2	21	Total			18	2
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELB 220	Life and Teachings Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	CLSC 221	Fundamentals of Clinical Chemistry	2	1	3	
	EDUC215	Introduction to Philosophy of Christian Education	2	0	2	CHEM 212	Organic Chemistry II	3	1	4	
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 254	Laboratory Practice and Safety	2	0	2	
	CHEM 221	Computer Applications in Chemistry	2	1	3	BIOL 293	Cell Biology	2	1	3	
	STAT 204	Non-Parametric Statistics	3	0	3		Vocational Skills	1	0	1	
	CHEM 231	Physical Chemistry I	2	1	3	BIOL 299	Genetics	2	1	3	
						CHEM 205	Atomic Structure and Bonding	2	1	3	
Total			16	3	19	Total			16	5	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 300	Introductory Biochemistry	2	1	3	CHEM 342	Inorganic Chemistry II	2	1	3	
	CHEM 309	Laboratory Experience	0	1	1	CHEM 362	Bioinformatics	2	1	3	
	CHEM 311	Protein Biochemistry	3	0	3	CHEM 364	Immunochemistry	2	1	3	
	CHEM 327	Intermediary Metabolism	2	1	3	CHEM 374	Nutritional Biochemistry	3	1	4	
	CHEM 346	Applied Biochemistry and Biotechnology	2	1	3	CHEM 419	Environmental Chemistry	3	0	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	BIOL 447	Molecular Biology	2	1	3	
	CHEM 383	Seminar in Chemistry I	2	0	2						
	CHEM 332	Physical Chemistry II	2	1	3						
Total			15	6	21	Total			14	5	19
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 430	Biochemical Pharmacology	2	1	3	CHEM 499	Industrial Experience	0	3	3	
	CHEM 442	Nucleic Acids and Recombinant DNA Technology	2	1	3						
	CHEM 451	Biochemical Techniques	2	1	3						
	CHEM 462	Microbial Biochemistry	2	1	3						
	CHEM 481	Seminar in Chemistry II	2	0	2						
	CHEM 471	Industrial Biochemistry	2	1	3						
Total			12	5	17	Total			0	3	3

Bachelor of Science in CHEMISTRY (GENERAL CHEMISTRY OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELH155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	HLED 110	Health Principles	1	0	1	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0		Vocational Skills	1	0	1	
	PSYC 101/ SOC1 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	CHEM 122	General Chemistry II	3	1	4	
	CHEM 121	General Chemistry I	3	1	4	BIOL 105	Human Biology	2	0	2	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3	
	PHYS 155	General Physics I	2	1	3						
	Total			18	2	20	Total			16	1
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agriculture Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	RELB 220	Life and Teachings Jesus	2	0	2	EDUC215	Introduction to Philosophy of Christian Education	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	CHEM 212	Organic Chemistry II	3	1	4	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	CHEM 221	Computer Applications in Chemistry	3	0	3	
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 255	Colloidal and Surface Chemistry	2	1	3	
	CHEM 231	Physical Chemistry I	2	1	3	CHEM 254	Laboratory Practice and Safety	2	0	2	
	MATH 227	Integral Calculus	3	0	3	CHEM 205	Atomic Structure and Bonding	2	1	3	
	CHEM 251	Analytical Chemistry I	2	1	3						
	Total			18	3	21	Total			15	4
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 411	Industrial Chemistry I	2	1	3	
	CHEM 300	Introductory Biochemistry	2	1	3	CHEM 419	Environmental Chemistry	3	0	3	
	CHEM 309	Laboratory Experience	0	1	1	CHEM 377	Modern Methods of Chemical Analysis and Synthesis	2	1	3	
	CHEM 345	Synthetic Organic Chemistry	2	1	3	CHEM 350	Polymer Chemistry	3	1	4	
	CHEM 332	Physical Chemistry II	2	1	3	CHEM 362	Bioinformatics	2	1	3	
	CHEM 394	Heterocyclic Chemistry and Stereo Chemistry	2	1	3	CHEM 342	Inorganic Chemistry II	2	1	3	
	CHEM 384	Coordination Chemistry	2	1	3						
	CHEM 383	Seminar in Chemistry I	2	0	2						
Total			14	7	21	Total			14	5	19
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 402	Transition Metal Chemistry	2	1	3	CHEM 499	Industrial Experience	0	3	3	
	CHEM 425	Electrochemistry	2	1	3						
	CHEM 481	Seminar in Chemistry II	2	0	2						
	CHEM 470	Chemistry Project	3	0	3						
	CHEM 431	Advanced Organic Chemistry	2	1	3						
		Elective I	3	0	3						
Total			14	3	17	Total			0	3	3

Bachelor of Science in CHEMISTRY (INDUSTRIAL CHEMISTRY OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	RELH155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	PEAC 107	Physical and Recreational Activities	1	0	1	RELT 207	Christian Beliefs	3	0	3	
	ENGL 105	Writing Skills	3	0	3	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0	CHEM 122	General Chemistry II	3	1	4	
	HLED 110	Health Principles	1	0	1	BIOL 105	Human Biology	2	0	2	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	AGRI 105	Principles of Agriculture Technology	2	0	2	
	CHEM 121	General Chemistry I	3	1	4	MATH 127	Differential Calculus	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3						
	PHYS 155	General Physics I	2	1	3						
	Total			19	2	21	Total			18	1
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2		Vocational Skills	1	0	1	
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 221	Computer Application in Chemistry	3	0	3	
	CHEM 231	Physical Chemistry I	2	1	3	CHEM 212	Organic Chemistry II	3	1	4	
	MATH 227	Integral Calculus	3	0	3	RELB 220	Life and Teachings of Jesus	2	0	2	
	STAT 204	Non-Parametric Statistics	3	0	3	CHEM 252	Analytical Chemistry II	2	1	3	
	CHEM 251	Analytical Chemistry I	2	1	3	CHEM 254	Laboratory Practice and Safety	2	0	2	
						CHEM 205	Atomic Structure and Bonding	2	1	3	
	Total			17	3	20	Total			17	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 332	Physical Chemistry II	2	1	3	CHEM 316	Unit Operation, Process Control and Industry	2	1	3	
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 337	Fluid Flow, Material and Energy Transfer	3	0	3	
	CHEM 303	Industrial Organic Chemistry	2	1	3	CHEM 342	Inorganic Chemistry II	2	1	3	
	CHEM 350	Polymer Chemistry	3	1	4	CHEM 411	Industrial Chemistry I	2	1	3	
	CHEM 381	Metallurgy	2	1	3	CHEM 419	Environmental Chemistry	3	0	3	
	CHEM 383	Seminar in Chemistry I	2	0	2	CHEM 424	Pharmaceutical Chemistry	2	1	3	
	CHEM309	Laboratory Experience	0	1	1						
Total			13	6	19	Total			14	4	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 471	Industrial Biochemistry	2	1	3	CHEM 499	Industrial Experience	0	3	3	
	CHEM 412	Industrial Chemistry II	2	1	3						
	CHEM 420	Industrial Waste Management	3	0	3						
	CHEM 434	Industrial Catalysis	2	1	3						
	CHEM 481	Seminar in Chemistry II	2	0	2						
	CHEM 470	Chemistry Project	3	0	3						
Total			14	3	17	Total			0	3	3

Bachelor of Science in CHEMISTRY (INDUSTRIAL CHEMISTRY WITH MANAGEMENT OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
1st	RELH155	Adventist Heritage	2	0	2	ENGL 106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3
	ENGL 105	Writing Skills	3	0	3	HLED 110	Health Principles	1	0	1
	OFTE 120	Keyboarding	0	0	0	INSY 107	Information Technology Today	2	0	2
	MGMT 130	Fundamentals of Management	3	0	3		Vocational Skills	1	0	1
	PSYC 101/ SOC1 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	CHEM 122	General Chemistry II	3	1	4
	CHEM 121	General Chemistry I	3	1	4	AGRI 105	Principles of Agriculture Technology	2	0	2
	COSC 150	Applied Statistics in IT	3	0	3	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2
	ACCT 110	Book Keeping And Accounting	2	0	2	MATH 127	Differential Calculus	3	0	3
	Total		20	1	21	Total		18	1	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELB 220	Life and Teachings of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	CHEM 251	Analytical Chemistry I	2	1	3	PEAC 107	Physical & Recreational Activities	1	0	1
	CHEM 211	Organic Chemistry I	3	1	4	CHEM 212	Organic Chemistry II	3	1	4
	CHEM 231	Physical Chemistry I	2	1	3	CHEM 252	Analytical Chemistry II	2	1	3
	MATH 227	Integral Calculus	3	0	3	CHEM 254	Laboratory Practice and Safety	2	0	2
	STAT 204	Non-Parametric Statistics	3	0	3	CHEM 221	Computer Application in Chemistry	3	0	3
						CHEM 205	Atomic Structure and Bonding	2	1	3
	Total		17	3	20	Total		16	4	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	CHEM 341	Inorganic Chemistry I	2	1	3	CHEM 316	Unit Operation, Process Control and Industry	2	1	3
	CHEM 303	Industrial Organic Chemistry	2	1	3	CHEM 337	Fluid Flow, Material and Energy Transfer	3	0	3
	CHEM 350	Polymer Chemistry	2	1	3	CHEM 411	Industrial Chemistry I	2	1	3
	CHEM 381	Metallurgy	2	1	3	CHEM 419	Environmental Chemistry	3	0	3
	CHEM 383	Seminar in Chemistry I	2	0	2	CHEM 424	Pharmaceutical Chemistry	2	1	3
	CHEM 309	Laboratory Experience	1	0	1	MGMT 231	Human Resource and Management	3	0	3
	CHEM 332	Physical Chemistry II	2	1	3	CHEM 342	Inorganic Chemistry II	2	1	3
	Total		13	5	18	Total		17	4	21
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	CHEM 471	Industrial Biochemistry	2	1	3	CHEM 499	Industrial Experience	0	3	3
	CHEM 412	Industrial Chemistry II	2	1	3					
	CHEM 420	Industrial Waste Management	3	0	3					
	CHEM 434	Industrial Catalysis	2	1	3					
	CHEM 481	Seminar in Chemistry II	2	0	2					
	CHEM 470	Chemistry Project	3	0	3					
	MGMT 475	Production and Operation Management	3	0	3					
	Total		17	3	20	Total		0	3	3

Bachelor of Science in MATHEMATICS (CHEMISTRY COGNATES)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	OFTE 120	Keyboarding	0	0	0	HLED 110	Health Principles	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2		Vocational Skills	1	0	1	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 121	Discrete Mathematics	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 127	Differential Calculus	3	0	3	
	CHEM 121	General Chemistry I	3	1	4	MATH 150	Linear Algebra I	3	0	3	
						CHEM 122	General Chemistry II	3	1	4	
Total			16	1	17	Total			18	1	19
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agriculture Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	BIOL 105	Human Biology	2	0	2	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	RELHI 155	Adventist Heritage	2	0	2	COSC 161	Programming in C language	3	0	3	
	MATH 227	Integral Calculus	3	0	3	MATH 248	Ordinary Differential Equations	3	0	3	
	MATH 240	Real Analysis I	3	0	3	MATH 274	Complex Analysis I	3	0	3	
	STAT 204	Non-Parametric Statistics	3	0	3	STAT 205	Probability Theory and its Applications	3	0	3	
	Total			19	1	20	Total			18	0
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MATH 330	Operations Research I	3	0	3	CHEM 212	Organic Chemistry II	3	1	4	
	MATH 327	Vector Analysis	3	0	3	CHEM 231	Physical Chemistry I	2	1	3	
	RELB 220	Life and Teachings of Jesus	2	0	2	MATH 371	Linear Algebra II	3	0	3	
	MATH 342	Boolean Algebra and its Applications	3	0	3	MATH/STAT	Elective	3	0	3	
	ENVI 227/ CHEM 200	Environment and Society/ Environmental Science	2	0	2	MATH 346	Group Theory	3	0	3	
	CHEM 211	Organic Chemistry I	3	1	4						
Total			16	1	17	Total			15	2	16
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MATH 414	Topology	3	0	3	MATH 480	Functional Analysis	3	0	3	
	MATH 427	Ordinary Differential Equations II	3	0	3	MATH/STAT	Elective	3	0	3	
	MATH 405	Number Theory	3	0	3	MATH/STAT	Elective	3	0	3	
	MATH401	Computer Applications in Mathematics	3	0	3	MATH 445	Partial Differential Equations	3	0	3	
	MATH 499	Mathematics Project	3	0	3	MATH 436	Numerical Analysis II	3	0	3	
	MATH 415	Measure Theory and Integration	3	0	3	MATH490	Industrial experience	3	0	3	
Total			18	0	18	Total			18	0	18

Bachelor of Science in MATHEMATICS (APPLIED STATISTICS COGNATES)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER				
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2	RELT 207	Christian Beliefs	3	0	3
	OFTE 120	Keyboarding	0	0	0	HLED 110	Health Principles	1	0	1
	PSYC 101/ SOCI 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2		Vocational Skills	1	0	1
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	MATH 121	Discrete Mathematics	3	0	3
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 127	Differential Calculus	3	0	3
	COSC 150	Applied Statistics in IT	3	0	3	MATH 150	Linear Algebra I	3	0	3
	Total		15	0	15	Total		17	0	17
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	RELHI 155	Adventist Heritage	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2
	ENVI 227	Environment and Society	2	0	2	MATH 248	Ordinary Differential Equations	3	0	3
	MATH 227	Integral Calculus	3	0	3	MATH 274	Complex Analysis I	3	0	3
	MATH 240	Real Analysis I	3	0	3	COSC 161	Programming in C language	3	0	3
	STAT 204	Non-Parametric Statistics	3	0	3	STAT 205	Probability Theory and its Applications	3	0	3
	STAT 207	Regression Analysis	3	0	3	STAT 270	Introduction to Econometrics	3	0	3
	Total		18	0	18	Total		19	0	19
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	MATH 330	Operations Research I	3	0	3	STAT 313	Test of Hypothesis	3	0	3
	RELB 220	Life and Teachings of Jesus	2	0	2	STAT 330	Sample Surveys	3	0	3
	MATH 327	Vector Analysis I	3	0	3	STAT 336	Quality Control Methods	3	0	3
	MATH 342	Boolean Algebra and its Applications	3	0	3	MATH 336	Numerical Analysis 1	3	0	3
	STAT 300	Multivariate Probability Distributions	3	0	3	MATH 371	Linear Algebra II	3	0	3
	STAT 305	Theory of Estimation	3	0	3	MATH 346	Group Theory	3	0	3
	Total		17	0	17	Total		18	0	18
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC
	MATH 414	Topology	3	0	3	MATH 480	Functional Analysis	3	0	3
	MATH 401	Computer Applications in Mathematics	3	0	3	MATH/STAT	Elective	3	0	3
	MATH 427	Ordinary Differential Equations II	3	0	3	MATH 445	Partial Differential Equations	3	0	3
	MATH 405	Number theory	3	0	3	MATH/STAT	Elective	3	0	3
	MATH 499	Mathematics Project	3	0	3	MATH 436	Numerical Analysis II	3	0	3
	MATH 415	Measure Theory and Integration	3	0	3	MATH/STAT	Elective	3	0	3
	Total		18	0	18	MATH490	Industrial experience	3		3
	Total		18	0	18	Total		18	0	21

Bachelor of Science in MATHEMATICS (PHYSICS COGNATES)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	PSYC 101/ SOC1 121/ SWFI 207	Introduction to Psychology/ Introduction to Sociology / Family Issues	2	0	2	RELT 207	Christian Beliefs	3	0	3	
	OFTE 120	Keyboarding	0	0	0	HLED 110	Health Principles	1	0	1	
	MUGR 100/ LITE 151	Music Appreciation/ Introduction to Literary Appreciation	2	0	2		Vocational Skills	1	0	1	
	RELH 155	Adventist Heritage	2	0	2	MATH 121	Discrete Mathematics	3	0	3	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	MATH 127	Differential Calculus	3	0	3	
	COSC 150	Applied Statistics in IT	3	0	3	MATH 150	Linear Algebra I	3	0	3	
	PHYS 160	Introduction to Mechanics	1	1	2	PHYS 165	Heat and Thermodynamics	2	1	3	
	PHYS 180	Introduction to Quantum Physics	3	0	3						
Total			19	1	20	Total			17	1	18
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	AGRI 105	Principles of Agriculture Technology	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	RELB 220	Life and Teachings of Jesus	2	0	2	BIOL 105	Human Biology	2	0	2	
	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	EDUC 215	Introduction to Philosophy of Christian Education	2	0	2	
	HIST 111/ HIST 119	Concepts of World Civilization/ Issues in Development Studies	2	0	2	COSC 161	Programming in C Language	3	0	3	
	ENVI 227/ CHEM 200/ TCED231	Environment and Society/ Environmental Science/ Safety Education	2	0	2	MATH 248	Ordinary Differential Equations	3	0	3	
	PEAC 107	Physical and Recreational Activities	1	0	1	MATH 274	Complex Analysis I	3	0	3	
	MATH 227	Integral Calculus	3	0	3	MATH 327	Vector Analysis	3	0	3	
	MATH 240	Real Analysis I	3	0	3	STAT 205	Probability Theory and its Applications	3	0	3	
	STAT 204	Non-Parametric Statistics	3	0	3						
Total			20	0	20	Total			21	0	21
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MATH 330	Operations Research I	3	0	3	COSC 272	Visual Basic Net Programming	3	0	3	
	MATH 336	Numerical Analysis I	3	0	3	PHYS 255	Quantum Mechanics	3	0	3	
	MATH 340	Real Analysis II	3	0	3	MATH 405	Number Theory	3	0	3	
	MATH 342	Boolean Algebra and its Applications	3	0	3	MATH/STAT	Elective	3	0	3	
	MATH 346	Group Theory	3	0	3						
	PHYS 225	Classical Mechanics	3	0	3						
Total			18	0	18	Total			12	0	12
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MATH 414	Topology	3	0	3	MATH 480	Functional Analysis	3	0	3	
	MATH 415	Measure Theory and Integration	3	0	3	MATH/STAT	Elective	3	0	3	
	MATH 427	Ordinary Differential Equations	3	0	3	MATH490	Industrial experience	3	0	3	
	MATH 447	Fluid Flow Analysis	3	0	3	MATH 445	Partial Differential Equations 2	3	0	3	
	MATH 499	Mathematics Project	3	0	3	MATH 436	Numerical Analysis II	3	0	3	
	MATH401	Computer Applications in Mathematics	3	0	3	MATH/ STAT	Elective	3	0	3	
Total			18	0	18	Total			18	0	18

Bachelor of Science in PHYSICS

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151	Introduction to Literary Appreciation	2	0	2	HLED 110	Health Principles	1	0	1	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0	MATH 127	Differential Calculus	3	0	3	
	PHYS 160	Fundamentals of Mechanics	2	1	3	MATH 150	Linear Algebra 1	3	0	3	
	PHYS 180	Introduction to Quantum Physics	3	0	3	MGMT 103	Basic Management & Entrepreneurial Skills	2	0	2	
	PSYC 101	Introduction to Psychology	2	0	2	PHYS 165	Heat & Thermodynamics	2	1	3	
	RELH 155	Adventist Heritage	2	0	2	PHYS 170	Geometric Optics	2	1	3	
	COSC 150	Applied Statistics in IT	3	0	3	RELT 207	Christian Beliefs	3	0	3	
Total			20	1	21	Total			19	2	21
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 213	Organic Chemistry	2	0	2	BIOL 105	Human Biology	2	0	2	
	HIST 111	Concepts of World Civilization	2	0	2	CHEM 223	Physical Chemistry	2	1	3	
	MATH 227	Integral Calculus	3	0	3	EDUC 215	Intro. to Philosophy Christian Education	2	0	2	
	PEAC 107	Physical & Recreational activities	1	0	1	MATH 248	Ordinary Differential Equation	3	0	3	
	PHYS 216	Waves & Oscillations	2	1	3	PHYS 232	Electricity & Magnetism II	2	1	3	
	PHYS 217	Mechanics II	2	1	3	PHYS 255	Quantum Mechanics	2	1	3	
	PHYS 231	Electricity & Magnetism I	2	1	3	RELT 255	Introduction to Christian Ethics	2	0	2	
	RELB 220	Life and Teaching of Jesus	2	0	2						
	Total			16	3	19	Total			15	3
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MATH 327	Vector Analysis	3	0	3	PHYS 325	Physics and Technology	3	0	3	
	ENVI 227	Environment and Society	2	0	2	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	
	PHYS 225	Classical Mechanics	3	0	3	PHYS 324	Statistical Mechanics	3	0	3	
	PHYS 300	Properties of Matter	2	1	3	PHYS 335	Physical Optics	2	1	3	
	PHYS 311	Mathematical Physics I	3	0	3	PHYS 345	Electronics	2	1	3	
	PHYS 313	Wave Theory	3	0	3	AGRI 105	Principles of Agricultural Technology	2	0	2	
	PHYS 317	Thermal Physics II	2	1	3						
Total			17	2	19	Total			14	2	16
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHYS 410	Nuclear Physics	2	0	2	PHYS 422	Analogue & Digital Electronics	2	1	3	
	PHYS 411	AC Circuit Theory	2	1	3	PHYS 424	Electromagnetic Theory	3	0	3	
	PHYS 413	Mathematical Physics II	3	0	3	PHYS 426	Modern Physics	2	0	2	
	PHYS 415	Solid State Physics	2	1	3	PHYS 428	Research Project	2	0	2	
	PHYS 417	Research Methods in Physics	2	0	2		Elective	2	0	2	
		Elective	2	0	2						
Total			13	2	15	Total			11	1	12

Bachelor of Science in PHYSICS (GEOPHYSICS OPTION)

Four-Year Course Plan

Key: T - Theory; L - Practical; TC - Total Credits

YEAR	1st SEMESTER					2nd SEMESTER					
1st	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	ENGL 105	Writing Skills	3	0	3	ENGL 106	Speech Communication	1	0	1	
	LITE 151	Introduction to Literary Appreciation	2	0	2	HLED 110	Health Principles	1	0	1	
	MATH 124	Basic Mathematics and Analytical Geometry	3	0	3	INSY 107	Information Technology Today	2	0	2	
	OFTE 120	Keyboarding	0	0	0	MATH 127	Differential Calculus	3	0	3	
	PHYS 160	Fundamentals of Mechanics	2	1	3	PHYS 140	Introductory Geophysics	2	0	2	
	PHYS 180	Introduction to Quantum Physics	3	0	3	MGMT 103	Basic Management & Entrepreneurial Skills	2	0	2	
	PSYC 101	Introduction to Psychology	2	0	2	PHYS 165	Heat & Thermodynamics	2	1	3	
	RELH 155	Adventist Heritage	2	0	2	PHYS 170	Geometric Optics	2	1	3	
	COSC 150	Applied Statistics in IT	3	0	3	RELT 207	Christian Beliefs	3	0	3	
Total			20	1	21	Total			18	2	20
2nd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	CHEM 213	Organic Chemistry	2	0	2	BIOL 105	Human Biology	2	0	2	
	HIST 111	Concepts of World Civilization	2	0	2	CHEM 223	Physical Chemistry	2	1	3	
	MATH 227	Integral Calculus	3	0	3	PHYS 240	Introduction to Geochemistry	2	0	2	
	PEAC 107	Physical & Recreational activities	1	0	1	EDUC 215	Intro. to Philosophy Christian Education	2	0	2	
	PHYS 216	Waves & Oscillations	2	1	3	PHYS 242	Physical Processes of the Earth	2	0	2	
	PHYS 217	Mechanics II	2	1	3	PHYS 232	Electricity & Magnetism II	2	1	3	
	PHYS 231	Electricity & Magnetism I	2	1	3	PHYS 244	Geothermics	2	0	2	
	RELB 220	Life and Teaching of Jesus	2	0	2	RELT 255	Introduction to Christian Ethics	2	0	2	
	PHYS 233	Introduction to Geology	2	0	2	PHYS 246	Earth Materials	2	0	2	
Total			18	3	21	Total			18	2	20
3rd	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	MATH 327	Vector Analysis	3	0	3	PHYS 342	Seismic Methods	3	0	3	
	PHYS 341	Remote Sensing & GIS	2	1	3	KISW 114/ FREN 105/ KISW 105	Language Skills In Kiswahili/ Beginning French/ Beginning Kiswahili I	2	0	2	
	PHYS 330	Electrical & Electromagnetic Methods	2	0	2	PHYS 348	Gravity and Magnetic methods	3	0	3	
	PHYS 300	Properties of Matter	2	1	3	PHYS 349	Geophysical Signal Processing	2	1	3	
	PHYS 311	Mathematical Physics I	3	0	3	PHYS 346	Industrial Experience/Field Camp	2	0	2	
	PHYS 331	Surveying	2	0	2	AGRI 105	Principles of Agricultural Technology	2	0	2	
Total			13	2	15	Total			15	1	16
4th	Code	Course Title	T	L	TC	Code	Course Title	T	L	TC	
	PHYS 410	Nuclear Physics	2	0	2	PHYS 424	Electromagnetic Theory	2	1	3	
	PHYS 411	AC Circuit Theory	2	1	3	PHYS 426	Modern Physics	2	0	2	
	PHYS 413	Mathematical Physics II	3	0	3	PHYS 428	Research Project	2	0	2	
		Elective	2	0	2	PHYS 442	Reservoir Geophysics	2	0	2	
	PHYS 417	Research Methods in Physics	2	0	2	PHYS 444	Geo-statistics	3	0	3	
	PHYS 419	Electrodynamics	3	0	3		Elective	2	0	2	
	Total			14	1	15	Total			13	1

COURSE DESCRIPTIONS

CHEM 103 Principles General Chemistry 3 Credits

This course is an introduction to general chemistry designed for students pursuing courses in Public Health. Topics to be covered include: introduction to chemistry, mathematical chemistry and stoichiometry, acids, bases and salts, atomic theory, nuclear chemistry, chemical kinetics and equilibrium, electrochemistry and thermodynamics. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: Consent of the Department.*

CHEM 105 Introductory Organic Biochemistry 3 Credits

This course is a continuation of CHEM 103. The course covers biochemistry, nomenclature, physical and chemical properties, preparation and reactions of organic functional groups. Topics to be covered include: Introduction to organic chemistry; chemistry of organic functional groups: alkanes, alkenes, alkynes, carbonyl compounds, alcohol, aromatic compounds, amines, amides, carboxylic acids, esters, ethers and esters. The structure, nomenclature and reactions of benzene and other aromatics. Other topics include; the chemistry of protein, carbohydrates, lipids, vitamins, nucleic acids, bioenergetics, glycolysis, citric acid cycle, oxidative phosphorylation, glycogen, nucleotide, lipid metabolism and disorders, body fluids, application of biochemistry to medical fields, and biotechnology. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 103.*

CHEM 111 Introductory General Chemistry 4 Credits

This course is an introduction to general chemistry designed for students pursuing courses in Medical Laboratory Sciences, Public Health and in Family and Consumer Science departments. Topics to be covered include: introduction to chemistry, mathematical chemistry, acids, bases and salts, atomic theory, nuclear chemistry, introduction to organic chemistry; chemistry of organic functional groups: alkanes, alkenes, alkynes, carbonyl compounds, alcohol, aromatic compounds, amines, amides, carboxylic acids, esters, ethers and esters, chemical kinetics and equilibrium, electrochemistry and thermodynamics.. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: Consent of the Department.* Also, the student with a grade of C-(minus) and below in chemistry in the KCSE or its equivalent will be required to take CHEM111 before proceeding to his/her required Chemistry course by his/her respective department. This course does not apply to the general education requirements

CHEM 113 Principles of organic and Biochemistry 4 Credits

This course is a continuation of CHEM 111. The course covers biochemistry, nomenclature, physical and chemical properties, preparation and reactions of organic functional groups. Topics to be covered include: Introduction to organic chemistry; chemistry of organic functional groups: alkanes, alkenes, alkynes, carbonyl compounds, alcohol, aromatic compounds, amines, amides, carboxylic acids, esters, ethers and esters.. The structure, nomenclature and reactions of benzene and other aromatics. Other topics include; the chemistry of protein, carbohydrates, lipids, vitamins, nucleic acids, bioenergetics, glycolysis, citric acid cycle, oxidative phosphorylation, glycogen, nucleotide, lipid metabolism and disorders, body fluids, application of biochemistry to medical fields, and biotechnology. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 111.*

CHEM 114 Textile Chemistry 4 Credits

This course is designed for students taking courses in fashion and textile. Topics to be covered include: organic chemistry of synthetic and natural polymers, applications of polymers in textiles, fiber chemistry, chemistry and application of dyes and colors, chemical processes for enhanced value textiles, pollution and prevention. This course will be complemented by educational trips to industries. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 111.*

CHEM 115 Basic Medical Biochemistry I 4 Credits

This course has been designed to fulfill curricula needs of pre-nurses. Topics to be covered include; introduction to biochemistry; definition of terms in medical biochemistry; Water, Ph and ionic equilibrium, bioenergetics, biological membrane structure: Functions, membrane asymmetry and fluidity, membrane transport, biological membranes, enzymes: Nature of enzymes, classification, characteristics, mechanism of enzyme action, regulation, the role of enzymes in clinical diagnosis and biomolecules: structure, properties and functions of biomolecules-carbohydrates, lipids, proteins, vitamins, enzymes, nucleic acids, micronutrients, enzymes There will be three lecture hours and one three-hour laboratory session per week. *Prerequisite: Consent of the Department.*

CHEM 116 Basic Medical Biochemistry II 3 Credits

This course is a basic biochemistry course that covers introduction to Biochemistry, Enzymes and Metabolism. Topics to be covered include; Metabolism of carbohydrate; Glycolysis; glycolysis in transformed cells, Feeder Pathways of Glycolysis, Fate of glucose -6-phosphate, pentose phosphate pathways, G6PDH deficiency, glucogenesis, tricarboxylic acid cycle, oxidative phosphorylation, lipids; overview, hydrolysis and activation, fate of glycerol and fatty acids; ketone bodies; overview, anabolism and catabolism of ketone bodies, ketosis associated with starvation and diabetes; Proteins; overview, transamination, deamination and the metabolic rate of nitrogen, urea cycle defects and remedy; Nucleic acid; overview, synthesis and degradation of nucleotides, catabolism of purines and pyrimidines; Vitamins: overview, vitamin B complex, vitamin C; metabolism functions of the liver; metabolism in a RBC; Ethanol catabolism and toxicity. There will be two lectures and one three-hour laboratory session per week. *Prerequisite: CHEM 115.*

CHEM 120 Fundamentals of Chemistry 3 Credits

This course is an introduction to general chemistry designed for students pursuing Education. Topics to be covered include: Atomic Structure; Atomic Models; Electronic structure and configuration: Energy levels and quantum numbers, orbitals and orbits. Spin, Hund's rule, Pauli exclusion principle and Aufbau's building up principle. Periodic Table; Types of bonds; Bonding theories; Valence and molecular orbital theories; Intermolecular forces; Structures and shapes of simple molecules. Stoichiometry: The mole concept. Volumetric analysis: balancing of equations. Redox reactions; Electron transfer reactions. Gases, liquids and solids. Gases laws. Energetics: Heats of reactions. Hess's law and Born-Haber cycle. Lattice energy. Equilibria and reaction Rates There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: Consent of the Department*

CHEM 121 General Chemistry I 4 Credits

This course provides a thorough introduction to the principles of general Chemistry to students who are science majors and

who already had some previous introduction to Chemistry. Mathematical chemistry and stoichiometry; Atomic Structure; Atomic models; Basic Quantum Chemistry; Electronic structure and configuration; Gaseous state, Liquid state, Solid state, Dilute solutions and colligative property; Volumetric Analysis are topics to be covered. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: Consent of the Department.*

CHEM 122 General Chemistry II 4 Credits

This course is a continuation to CHEM 121. The topics to be covered: Types of bond - Covalent bonding - Covalent bond properties of organic molecules - Naming of organic compounds (up to 10 carbon systems) - Isomerism - Polarity of molecules - Intermolecular forces - Melting and boiling point - Solubility - Types of organic reactions - Reagents and Intermediate - Types of bond cleavages - Calculation of empirical and molecular formulae - Acid - Base theory; Qualitative Inorganic Analysis: Interfering acid radicals, Theory of Interference, Elimination of Interfering acid radicals, Group separation, Common ion effect and Solubility product. Basic concepts of chemical kinetics, equilibrium, acid-base reactions, metathesis reactions, redox reactions, thermodynamics and electrochemistry (derivation is not required). There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 121.*

CHEM 130 Introduction to Organic Chemistry 3 Credits

This course is an introduction to organic chemistry designed for students pursuing Education. Topics to be covered include: Introduction to Carbon Chemistry: Its Uniqueness and importance of Organic Chemistry. Classification of organic compounds, functional groups and homologous series and formulae. Alkanes, alkenes, alkynes, aromatic hydrocarbons (arenes), organic halogen compounds, alcohols, phenol and ethers, aldehydes and ketones, carboxylic acids, esters and amines: Definition, structures, nomenclature, preparation, physical and chemical properties and uses. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 120.*

CHEM 151 Engineering Chemistry 4 Credits

This course is an introduction to organic chemistry designed for students pursuing Electronics and Automotive Technology. Topics to be covered include: Atomic structure, molecular mass, acids and bases. Solutions, colloids, nano-particles. Corrosion and its control. Basic concepts of electrochemistry; conductance: specific, equivalent and molar conductance and effect of dilution on conductance. Causes and effects of corrosion; theories of corrosion: chemical and electrochemical corrosion with mechanism; factors affecting the rate of corrosion. Water technology; sources and impurities of water, hardness of water, expression of hardness-units; types of hardness: temporary hardness, permanent hardness. Materials chemistry: polymers-classification with examples, polymerization-addition, condensation and co-polymerization; plastics, rubbers. Fuels and combustion. Liquid fuels: Petroleum and its refining; Cracking: Fixed bed catalytic cracking; Knocking: Octane and cetane numbers; Gaseous fuels: Composition, characteristics and applications of Natural gas, LPG and CNG; Combustion: Calorific value-Gross calorific value(GCV) and Net calorific value(NCV), calculation of air quantity required for complete combustion of fuel, numerical problems. This course will be complemented by educational trips to industries. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: Consent of the Department.*

CHEM 154 Introduction to Analytical Chemistry 3 Credits

This course is designed for students pursuing Education to help the student to develop the habit of accurate manipulation and an attitude of critical thinking and to learn the analytical methods and appreciate what is involved in an analysis. Topics to be covered include: Introduction to elementary quantitative analysis. Principles and practice of precision measurement in chemistry. Sampling, analytical method selection and statistical treatment of data. Types of errors; precision and accuracy. Distribution of errors: mean, standard deviation, variance, student t-test and confidence limits. Gravimetric analysis; precipitation; titrimetric analysis; acid-base and oxidation-reduction and complexometric analysis. Separation techniques: such as liquid-liquid extraction, fractional distillation, crystallization, and chromatography including TLC, paper, column, ion-exchange, gas- liquid and high pressure liquid methods. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 120.*

CHEM 171 Organic Functional Groups 3 Credits

This course is a continuation to CHEM 130. Introduction to organic synthesis; General survey of the scope and limitations. Stereochemistry: Conformation in alkanes. Chirality. Molecules with one asymmetric carbon. enantiomerism. R/S system of nomenclature. Optical activity. Molecules with more than one asymmetric carbon. Diastereoisomerism. Meso compounds. Nomenclature. Separating enantiomers. Reaction mechanism: Nucleophilic substitution reactions: SN2 reactions and SN1 reactions. Elimination reactions: E2 reaction and E1 reaction (mechanism, rearrangement), E2 versus E1. Stereochemistry of E1 and E2 reactions, Elimination from cyclic compounds, Elimination versus substitution. Addition reactions: Addition of hydrogen halides, addition of water and alcohols, addition of halogens (stereospecificity), oxymercuration-reduction, hydroboration-oxidation, addition of radicals (anti-markovnikov), addition of hydrogen (syn and anti-additions). There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 130.*

CHEM 200 Environmental Science 2 Credits

This is a general requirement course is designed for non-science students to study and understand the environment in terms of: earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution and global change. There will be two lecture hours and field trip to industries. *Prerequisite: Consent of the Department.*

CHEM 205 Atomic Structure and Bonding 3 Credits

This course is designed to help the students to understand the different kinds of chemical forces in molecules and to identify the nature of chemical bond in a given inorganic compound. The topics to be covered includes: Primary particles of chemical interest; Isotopes; Particle wave duality, de Broglie relationship; The Bohr atom; wave functions; the Schrödinger equation, and solutions for the hydrogen atom; shapes of orbitals: s, p and d; Magnetic and electron quantum numbers; Hund's rule; Pauli exclusion principle; Aufbau principle leading to the periodic table; Many-electron atoms; need for Slater effective atomic numbers, penetration and shielding. Chemical bonding, ionic and covalent character, dipole moments. MO theory; LCAO approximations, bonding and antibonding orbitals, bond order; Delocalisation. Valence bond theory: Hybridization, symmetry, overlap, resonance. Comparison of VBT and MO descriptions; shapes of molecules, Solvation energies, Born Haber cycle, Metallic bonding, Insulators, semi-conductors, Defects in

crystalline solids. The bond theory of metals. Complexions, definitions and examples of acids and bases, coordinate bond. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 121 (CHEM 120 and CHEM 130 For Education Students).*

CHEM 211 Organic Chemistry I **4 Credits**

This course provides a thorough introduction to the Chemistry of carbon containing compounds. The topics to be covered includes: nomenclature, physical and chemical properties of organic compounds, general and specific chemical reactions of major organic functional groups and how they are prepared and used in everyday life and in industry. Uniqueness and importance of Organic Chemistry. Classification of organic compounds, functional groups and homologous series and formulae. Simple acyclic and cyclic alkanes, alkenes, alkynes, alkyl halides, mono and polyhydric alcohols, ethers, aldehydes, ketones, carboxylic acids and its derivatives esters and amines: are dealt with. In all cases emphasis is placed on relationship between structure and reactivity will also be covered. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 122.*

CHEM 212 Organic Chemistry II **4 Credits**

This course is a continuation to CHEM 211. It covers the stereochemistry, reaction mechanism, chemistry of benzene and its derivatives, aromatic compounds in general and aliphatic aromatic compounds. Stereochemistry: Conformation in alkanes; E/Z and R/S system of nomenclature. Geometrical isomerism; Optical isomerism: chirality, enantiomerism, diastereomerism and meso compounds; Reaction mechanism: SN2 and SN1 reactions, E2 and E1 reaction; Stereochemistry of SN2, SN1, E1 and E2 reactions; elimination from cyclic compounds. Addition reactions: Addition of hydrogen halides, addition of water and alcohols, addition of halogens (stereospecificity), oxymercuration-reduction, hydroboration-oxidation, addition of radicals (anti-markovnikov), addition of hydrogen (syn and anti-additions). Preparation, property and uses of benzene, toluene, naphthalene, anthracene, chlorobenzene, phenol, benzaldehyde, acetophenone, benzoic acid and benzene sulphonic acid are also dealt with. Structure of benzene, aromaticity and aromatic electrophilic substitution reaction and its mechanisms is also covered. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 211.*

CHEM 213 Organic Chemistry **2 Credits**

This course is intended to introduce students studying physics to the basic and essential concepts of Organic Chemistry. It covers the concepts on the uniqueness of carbon in the periodic table and catenation. Bonding in carbon compounds including sp, sp², sp³, and hybridization. Polarised bonds and electronegativity. The occurrence, nomenclature, structural isomerism, and physical and chemical properties of alkanes and cycloalkanes. Elementary structural elucidation, calculations of empirical and molecular formulae, double bond equivalents, and the use of reactions in the identification of organic molecules, Nomenclature. An introduction to the chemistry of the organic functional groups: alkenes, alkynes, alkyl halides, alkanols, alkanals, alkenones, alkanoids, and alkyl amines. Practicals include the investigation of organic functional group reactions and the preparation of organic compounds.

CHEM 221 Computer Applications in Chemistry **3 Credits**

The course is designed to help develop an appreciation and understanding of how to use a computer program to solve

problems related to chemical research, analysis and product development. This is a course in which computational tools in chemistry are discussed. Topics to be covered include: Introduction to internet information sources, data analysis, spreadsheets and graphing applications and presentation software, handling of chemical structures and molecular modeling, group theory; the students will also be introduced to modern chemistry software including but not limited to Chemtool, ChemDraw, JChemPaint, xDrawChem, virtual chemistry lab, CS23D, Discovery Studio etc. will be covered. There will be two lecture hours and one practical each week. *Prerequisites: INSY107 and CHEM122.*

CHEM 223 Physical Chemistry **2 Credits**

This course is intended to introduce students studying physics to the basic and essential concepts of Physical Chemistry. It covers the properties of gases, kinetic molecular theory of gases, ideal gas laws, deviation from ideality, and Van-der-Waal's equation. Maxwell-Boltzman distribution (qualitative treatment). Equilibrium; chemical equilibria, reversible chemical reactions. Equilibrium constants and their dependence on concentration and pressures. Le-Chateliers principle, ionic equilibria. Ionization of water, acids, bases and salts, pH, and buffer solutions. Acid-base concepts, indicators. Solubility and solubility products. Factors affecting solubility. Thermochemistry: Heat change involved in chemical reactions, heat of formation, combustion, neutralization, and solution. Emphasis on heat based on standards states. Hess's Law of Heat summations. Reaction kinetics and catalysis: 1st order reactions; Electrochemistry: electrochemical processes, half-cell reactions, equilibrium electrode potentials, and sign convention, emf of a cell. Introduction to colloidal chemistry. Surface chemistry of solids. Classification of colloids. stability of colloidal systems, and physical characteristics of colloids. Two-phase colloidal systems. *Prerequisite Chem 120.*

CHEM 231 Physical Chemistry I **3 Credits**

This course covers principles and application of physical chemistry. Topics to be covered include chemical kinetics: kinetic parameters; zero, first, second and third order reaction; determination of rate, rate constant and order by different methods; types and theories of chemical reaction rates; qualitative treatment of Boltzmann factor. Catalysis: homogeneous and heterogeneous catalysis. Surface chemistry. Phase equilibria and phase rule. Gaseous theory: Properties of gases, kinetic theory of gases, ideal gas laws, deviation from ideality and Van der Waals equation. Derivation of heat capacities (C_v and C_p) from the kinetic theory of gases. Liquefaction of gases, Law of corresponding states and the critical point. There will be two lecture hours and one three-hour laboratory session each week. *Prerequisites: CHEM 122 and COSC 111 OR MATH 127 (CHEM 120 and COSC 111 OR MATH 127 For Education Students).*

CHEM 235 Chemical Analysis and Structural Determination **3 Credits**

This course is a continuation of CHEM 154: This course covers theory and application of the instruments in analyzing compounds. Topics to be covered include: Optical methods. Applications of the techniques in analysing compounds. Emission spectroscopy. X-rays methods. Electrochemical methods. Chromatographic techniques. In each component of the course, instructions and practical work on the skills of handling instruments, acquisition of spectra and data interpretation will be emphasized. Interphase between

chromatography and spectrometric techniques: (NMR – MS – IR – GC), i.e., LC-GC, LC-MS, GC-IR, LC-NMR, MS-MS, LC-NMR-MS. Ionization modes; electroionisation, electro-spray ionization, fast atom bombardment ionisation, atmospheric pressure chemical ionization, matrix assisted laser desorption ionization. Instrumentation of MS, NMR, Tandem Mass Spectrometry. Selected ion MS, Selected ion monitoring Fourier transformation (FT). Qualitative analysis. Applications. This course will be complemented by educational trips to industries. There will be two lecture hours and one three-hour laboratory session each week. *Prerequisite: CHEM 154.*

CHEM 251 Analytical Chemistry I 3 Credits

This course is designed to help the student to develop the habit of accurate manipulation and an attitude of critical thinking and to learn the analytical methods and appreciate what is involved in an analysis. The topics covered include principle and practice of precision measurement in chemistry; sampling, analytical method selection and statistical treatment of data; types of errors; distribution of errors; quantitative methods of analysis, particularly the classical methods, gravimetric, volumetric and colorimetric analyses, titrations such as acid/base and oxidation/reduction, potentiometry, chronopotentiometry, amperometric titration, and chronocoulometry. Separation techniques: separation by precipitation, freeze drying, extraction and various chromatographic methods (paper, thin layer, partition, absorption, ion exchange, gas-liquid, high performance liquid, and gas chromatography). There will be three lecture hours and a three-hour laboratory session per week. This course will be complemented by educational trips to industries. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 122.*

CHEM 252 Analytical Chemistry II 3 Credits

This course is a continuation of CHEM 251. This course covers theory and application of the instruments in analyzing compounds. Topics to be covered include: Basic principles of electrochemical reactions, electroanalytical, voltammetry and polarography as applied to analysis and the chemistry of heterogeneous electron transfers, analog electronics, and electrochemical instrumentation. Chromatographic techniques. Interphase between chromatography and spectrometric techniques: Optical spectroscopy, UV-Vis spectrometry, luminescence spectroscopy, Infrared spectrometry, Raman spectroscopy, Atomic Optical and Emission spectroscopy, Atomic absorption spectrometry. Mass spectrometry. FT-IR. NMR. X-Ray Diffraction. Electron spectroscopy and Flow injection Analysis. Instrumentation of MS, NMR, IR, UV and Tandem mass spectrometry. This course will be complemented by educational trips to industries. There will be two lecture hours and one three-hour laboratory session each week. *Prerequisite: CHEM 251.*

CHEM 254 Laboratory Practice and Safety 2 Credits

This course is designed to give laboratory practice and safety principles to students. Definition and establishment of a Laboratory; Role of laboratories in biochemical and chemical studies and research, Structure and categorization of Biochemical and chemical laboratories, Total Quality Management in laboratories, Quality Assurance (AS); Standard Operating Procedures (SOPs). Quality Control (QC); External Quality Assessment (EQA). Safety rules in the laboratory. Risk assessment, Common hazards and causes of accidents in laboratories, Personal health and safety measures, Personal hygiene, Protective clothing, Decontamination of infectious material and disposal of laboratory waste, Fire safety in

the laboratory, Emergency First Aid in the laboratory, Use of laboratory equipment and apparatus. This course will be supplemented by field trips. There will be two lecture hours per week. *Prerequisite: Consent of the Department.*

CHEM 255 Colloidal and Surface Chemistry 3 Credits

This course is an introduction to colloidal and surface chemistry. Topics to be covered include general thermodynamical and molecular characterization of the surface: issues related to the thermodynamical and molecular description of the surface; surface tension and surface energy; wetting angle; functioning of adhesion and cohesion; methods of measuring surface tension. Select examples of special applications of the surface Chemistry in industry: issues related to wetting, flotation, detergency, adhesion, emulsion, foam and industrial applications of these phenomena. Colloidal systems (basics and important properties and electrical properties of colloids and stability of colloidal systems (Schulze-Hardy rule, critical coagulation, concentration, DVLVO theory. There will be three lecture hours each week. *Prerequisite: CHEM 122.*

CHEM 271 Chemical Thermodynamics and Phase Equilibria 3 Credits

This course is designed to expose students to understand the concepts of thermodynamics and to apply it to physical and chemical systems and also to understand the effect of pressure and temperature on phase equilibrium. Topics to be covered includes Thermodynamics: first law of thermodynamics and its applications to ideal and real (van der Waals) gases; thermochemistry; second law of thermodynamics; thermodynamics of reversible processes; third law of thermodynamics; statistical thermodynamics. Phase equilibria: phase rule; one component system; two component system; three component system; Raoult's and Henry's laws; azeotropes, eutectics; application to ideal and non-ideal systems and industrially important process. Distillation colligative properties. This course also involves a term project where the student uses some of these concepts in a specific example related to his/her thesis project. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 231.*

CHEM 300 Introductory Biochemistry 3 Credits

This is a general introduction to the science of biochemistry. Topics to be covered include form, function and brief classification of prokaryotes; cellular architecture and diversity of eukaryotes. Unique properties of carbon and water, pH and buffers. Overview of biological molecules and their structure including proteins, carbohydrates, lipids, nucleic acids, hormones, enzymes, vitamins, electron transport chain and micronutrients. Introduction to metabolic processes and bioenergetics. Biochemical basis of structural and functional variations in living beings. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 211*

CHEM 303 Industrial Organic Chemistry 3 Credits

The course covers applications of Organic Chemistry to Industrial processes. Topics to be covered includes basic products of industrial syntheses: Olefins and 1, 3-diolefins (cracking of hydrocarbons, production and applications); acetylene (manufacturing and applications). Synthesis gas (via coal, natural gas and oil, purification and application, production of the pure components). Aromatics (sources of feedstock, isolation, conversion processes for aromatics, alkylation derivatives). Raw materials from renewable sources.

Main transformation processes: Halogenations, hydrogenation and oxidation: process operations transformation products, applications and derivatives. Syntheses involving carbon monoxide (hydroformylation of olefins: chemical basis, industrial operation and applications of oxo products; carbonylation processes). Some groups of compounds. Dicarboxylic acids, diamines, amino acids; lactams and lactones; lower and higher alcohols; esters. There will be two lecture hours and 1 three-hour laboratory each week. *Prerequisite: CHEM 212.*

CHEM 309 Laboratory Experience 1 Credit

This course offers the student an opportunity to apply chemistry concepts in the laboratory. The course requires the student to prepare and administer reagents to assigned chemistry laboratory courses, marking of laboratory reports, and doing all chemistry laboratory work as assigned. This course will run for one semester. *Prerequisite: CHEM 254*

CHEM 310 Biochemistry for Life Sciences 4 Credits

This course is designed for students pursuing life sciences. Topics to be covered include in depth coverage of carbohydrates, proteins, lipids, nucleic acids and metabolic pathways, hormones, vitamins, glycolysis, tricarboxylic acid cycle, oxidative phosphorylation, and enzymes. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 300*

CHEM 311 Protein Biochemistry 3 Credits

This course is an introduction to protein biochemistry. Topics to be covered include amino acids, general properties, classification, acid-base properties, optical activity, separation, specialized roles of amino acids. Classification, properties and functions of proteins, primary, secondary, tertiary and quaternary structure of proteins. General characteristics of enzymes, enzyme nomenclature and classification, coenzymes, substrate specificity. Regulation of enzyme activity, enzyme kinetics, Michaelis-Menten equation, inhibition of enzymes, rate of catalysis Role of vitamins as co-factors. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 300*

CHEM 316 Unit Operations, Process Control and Industrial Systems 3 Credits

This course is an introduction to unit operations and process control in industries. Topics to be covered include: Plants and processes; flow diagrams; size reduction and enlargement; separations of solid-solid, solid-liquid, solid-gas and liquid-liquid mixtures; mixing and blending, material handling; plant services: - water, steam, compressed air; materials of construction. Concepts of process control. Industrial health and safety. The course will be supplemented with industrial visits to relevant industries. There will be three lecture hours each week. *Prerequisite: CHEM 231*

CHEM 327 Intermediary Metabolism 3 Credits

This course provides concepts of metabolism. Topics to be covered include: bioenergetics; oxidative phosphorylation; metabolic pathways and disorders: carbohydrates, proteins, lipids, nucleic acids; biochemistry of hormones, vitamins and enzymes. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 311.*

CHEM 332 Physical Chemistry II 3 Credits

This course is a continuation of CHEM 231. Topics to be covered include: chemical equilibrium, chemical kinetics, ionic

equilibrium, colloidal state, quantum chemistry, photochemistry, electrochemistry, radiation chemistry and nuclear chemistry. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 231.*

CHEM 337 Fluid Flow, Material and Energy Transfer 3 Credits

This course offers students with an overview of fluid flow, material science and energy transfer. Topics to be covered include: Introduction to the physical properties of fluids, fluid statics. Equations of conservation of mass, momentum and energy for systems and control volumes. Dimensional analysis and similarity. Principles of inviscid and real fluid flows; flow through pipes and around bodies. Application and design of fluid handling systems. Fundamental principles of conduction and convective heat transfer, and diffusional and convective mass transfer. Design applications to heat exchanges and packed bed absorbers. Material Balances: Component, elemental and differential material balances. Problems involving bypass, recycle, purge and chemical reactions. Applications of principles of thermodynamics. Integrated material and energy balance problems. There will be three lecture hours each week. *Prerequisite: CHEM 332.*

CHEM 341 Inorganic Chemistry I 3 Credits

This course is designed to know the nature of compounds formed by s- and p-block elements and the various reagents of main group elements and their use in synthetic chemistry. Topics to be covered include general Principles of Metallurgy, chemistry of s - block element: chemical properties of the metals, compounds of s-block metals and complexes of s-block metals); chemistry of p - block element: Group 13 (boron group), Group 14 (carbon group), Group-15 (nitrogen group), Group-16 (oxygen group) and Group-17 (halogens); molecular structure, molecular shape and symmetry, and structure of solids. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 205.*

CHEM 342 Inorganic Chemistry II 3 Credits

This course is a continuation of CHEM 341. Topics to be covered include chemistry of d and f- block elements, descriptive chemistry of selected groups of transition metals, electronic spectra of complex, organometallic compounds and catalysis, metals Alloys, oxidation and reduction, acids and bases (HSAB concept and their application) and Bio-Inorganic Chemistry. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 341.*

CHEM 345 Synthetic Organic Chemistry 3 Credits

This course offers intermediate organic chemistry to students who will pursue advanced organic chemistry in their course of study. Topics to be covered include Linear and Convergent Synthesis. Interconversion of Functional Group. Strategies for the Synthesis of C-C bond: nucleophilic addition to carbonyl, conjugate addition, enolate chemistry, stereoselective aspects of alkylation, kinetic and thermodynamic control. Strategies for the synthesis of C-O, C-N, C-S and C-P bonds. Stereo chemical considerations and choice of strategies will be followed by analysis of recent syntheses. Retrosynthetic analysis and design of synthetic routes in organic synthesis. Method of forming cyclic and alicyclic carbon bonds. Hydroboration and stereochemistry. Use of protecting group in organic synthesis. Reaction mechanisms associated with the above reactions are discussed. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212 (CHEM 171 For Education Students).*

CHEM 346 Applied Biochemistry and Biotechnology **3 Credits**

This course is designed to offer students introduction to applied biochemistry and biotechnology. Topics to be covered includes: Industrial processes, food and energy production; Plant cell, tissue and organ culture. Isolation and cloning of gene. Genetic engineering for improved animal, plant and human health; Viral vectors, haploids, protoplasts, hybrids and fusion; Disease diagnostics and pathogen monitoring; Mutagenesis. Molecular and somatic hybridization; Biosensor; Application to Agriculture, medicine, industry, healthcare and food processing with reference to Kenyan situation. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 300.*

CHEM 350 Polymer Chemistry **4 Credits**

This course is designed to give the students the importance of polymers and an exposure to polymer science. Topics to be covered include:- Introduction to polymer: classification of polymers, bonding in polymers, determination of molecular mass of polymers; Kinetics and mechanism for polymerization: chain growth polymerization (cationic, anionic, free radical polymerization, stereo regular polymers, Ziegler – Natta polymers) and step growth polymers; Techniques of polymerization and polymer degradation; Preparation of various industrial polymers (Preparation of thermoplastics, thermosetting plastics and elastomers); Introduction to polymer processing (compounding and polymer processing). This course will be complemented by educational trips to industries. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212.*

CHEM 358 Analytical Food Chemistry **3 Credits**

The course encompasses the chemistry of biologically important food substances, their chemical composition and nutritional values, processing and preservation. Topics covered include: Water, Dispersed systems; colloids and gels, carbohydrates, lipids, proteins, vitamins, minerals, chemistry of food colours, flavours and food additives. Minerals. Food toxicants; pesticide residues. Theory and practice of modern methods of food analysis. Analytical principles. Official methods of analysis. Major instrumental techniques and their applications in Food analysis. This course will be complemented by educational trips to industries There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 252.*

CHEM 362 Bioinformatics **3 Credits**

This course provides an introduction to Bioinformatics. The course content includes: Historical perspectives, definitions. Introduction to sequences; sequence formats. Introduction to databases; sequence retrieval from public databases. Sequence alignment; local and global alignment. The FASTA and BLAST methods for database searches. Dot Matrix sequence comparisons. Dynamic programming algorithm; scoring matrices. Phylogenetic analysis; CLUSTAL W and T-Coffee MSA tools. Gene prediction in microbial and in eukaryotes. Protein classification and structure prediction. Genome analysis- gene anatomy. Comparative genomics. Applications of Bioinformatics. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 300.*

CHEM 364 Immunochimistry **3 Credits**

This course emphasizes the molecular genetics and structure function events that occur in the humoral immune response and cell mediated immunity. Interleukins and other mediators of inflammation, a field in which rapid changes are occurring are

discussed which include transfusion, transplantation and tumor immunochemistry. The clinical significance of fundamental biochemical findings is described. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 300.*

CHEM 471 Industrial Biochemistry **3 Credits**

This course is an application of biochemistry principles in industry. Topics to be covered includes: Introduction to food microbes' classification and methods for identification. Food poisoning and food borne infections. Water borne microbes. Microbes useful in industrial processes yeast in bread making, alcohol production, glycerol fermentation, manufacture of vinegar. Waste treatment and retting process. Microbes in production of chemotherapeutic agents. Use of microbes in insect pest control. Synthesis of vitamins or organic acids, enzymes and hormones. Crop husbandry and research. Biologically modified microbes in vaccines and antibiotic production. The course will be supplemented by several field trips. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 211.*

CHEM 374 Nutritional Biochemistry **4 Credits**

This course offers concepts on nutritional biochemistry. Topics to be covered includes: Review of macro nutrients essential amino acids and fatty acids, function and metabolism of prostaglandins and eicosanoids. Micronutrients fat soluble and water-soluble vitamins. Macro minerals calcium, phosphorus, magnesium, sodium, potassium. Micro minerals iron, zinc, copper, selenium, cobalt, fluoride, silicon, manganese, chromium and iodine. Food contaminants and their toxicity. Recommended daily requirements. Anaerobic and aerobic oxidation of glucose, electron transport chain, alternate pathways for carbohydrate metabolism (HMP shunt), gluconeogenesis, transmission deamination and decarboxylation reaction and urea cycle. Fatty acid oxidation biosynthesis of fatty acid glycerides, phospholipids, glycolipids and sterols. Digestion, absorption and metabolism of purines, pyrimidines and nucleotides. There will be three lecture hours and one three-hour laboratory each week. *Prerequisite CHEM 300.*

CHEM 377 Modern Methods of Chemical Analysis and Synthesis **3 Credits**

This course is designed to expose students to advanced chemical techniques. Emphasis is on physical and inorganic chemical systems. Experiments include the use of air sensitive techniques, organometallic compound synthesis and multi-step transition of metal compound preparations and kinetic studies, use of solid-state synthesis, calorimetry, lasers, and isotope effect studies. This course will be complemented by educational trips to industries There will be two lecture hours and one three-hour laboratory each week. *Prerequisites: CHEM 251 and CHEM 342.*

CHEM 381 Metallurgy **3 Credits**

This course is designed to understand principles and process of metallurgy and metallurgy of various metals. Topics to be covered includes Principles of metallurgy: Introduction, occurrence of metals, ores and minerals, types of ores, operations involved in metallurgy, crushing, connotation, various methods of concentration such as hand picking, gravity separation, magnetic separation. Froth flotation, Calcinations, Roasting etc. Reduction, various methods of reduction such as smelting, Aluminothermic process and electrolytic reduction, Refining of metals, various methods of refining such as poling, liquation, electrolytic and vapour phase refining (Van Arkel

Process); Metallurgy of Al, Fe, Ag, Cu, Pb, Sn, Ti, V, W, Cr, Th and U. There will be three lecture hours per week and this course will be supplemented by industry trips. *Prerequisite: CHEM 122.*

CHEM 383 Seminar in Chemistry I 2 Credits

This course is an introduction to research techniques; laboratory work and literature search under the supervision of an instructor on a chemical research project. Each student is required to design a research project, write a research proposal and defend it. There will be one lecture hour per week. *Prerequisite: Consent of the Department.*

CHEM 384 Coordination Chemistry 3 Credits

This course is designed to expose students to understand the nature of bonding in coordination compounds and to know the role of transition metal ions in primary bioinorganic systems and the importance of coordination compounds in medicine. Topics to be covered includes Theory of Coordination Compounds: Introduction, nomenclature, Isomerism, Blomstrand-Jørgensen and Werner's theories, Sidgwick theory and valence bond theory, Crystal field theory, Jahn Teller theorem, Covalency in transition metal complexes and MO Theory; Reaction Mechanisms of Coordination compounds: Substitution reactions in octahedral complexes, Electron transfer reactions, Inorganic photochemistry, Substitution reactions in square complexes and Vaska's complexes; Synthesis of Coordination Compounds: Cis- and trans-effects in synthesis of square planar and octahedral complexes and Metal template synthesis-metal phthalocyanins and Schiff bases; Inorganic Biochemistry: Biological roles of transition metal ions containing proteins and enzymes, Biological role of cytochromes, carboxypeptidase -A, superoxide dismutase and Inorganic medicinal chemistry. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 341.*

CHEM 394 Heterocyclic and Stereochemistry 3 Credits

This course is designed to help the students to learn the basic aspects of heterocyclic compounds and stereochemistry of organic compounds. Topics to be covered include Heterocyclic compounds: The chemistry of heterocyclic compounds of three, four, five and six - member ring systems with one or more heteroatoms. Fused ring systems with carbocyclic and heterocyclic ring systems. Influence of heteroatoms on chemistry of these ring systems (synthesis and reactions of these rings). Heterocyclic compounds with pharmaceutical and industrial importance. Emphasis on the biologically active compounds and their synthesis. Also covers electrophilic aromatic substitution reactions of benzenes and their mechanism; Reactions of substituted benzenes. Conformation and configuration. Stereoselective reactions of cyclic compounds. Diastereoselectivity. Stereoselective reactions. Prochirality. Diastereoselectivity in carbonyl addition. Effect of chelation. Stereoselectivity in aldol reactions. Determination of stereochemistry by spectroscopic methods: conformational analysis of both cyclic and acyclic systems. Practical to include the use of NMR to determine stereochemistry of isomers. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212 (CHEM 171 and CHEM 345 For Education Students).*

CHEM 402 Transition metals Chemistry 3 Credits

This course is designed to students to know the tendency of transition metals to exhibits variable valency and the catalytic properties of transition metals and industrial applications of their compounds. Topics to be covered include introductory

survey; structure and colours of transition metal compounds, charge transfer spectra; Metal-metal bonding and cluster compounds; Descriptive chemistry of selected groups of transition metals; Energy levels in metal complexes and their consequences; Spectrochemical series; splitting of d-orbitals, crystal field stabilization energy; structures and reaction of halides and halo-complexes, aquo ions, hydroxo- and oxo-complexes. Spectra; Tanabe sugano diagrams. Metal carbonyls, nitrosyls and molecular nitrogen: Application of spectroscopic studies to predict structures and stabilities. Practical applications of selected oxides; Selected catalytically important reaction. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 341.*

CHEM 411 Industrial Chemistry I 3 Credits

This course introduces students to basic inorganic and organic based industries. Topics to be covered include: History of the chemical industry, current situation of raw materials and energy, products of the chemical industry, basic terms (conversion, selectivity, yield), comparison of labs vs. industry; calculation and solution of balance equations, costing, flow diagrams, basic organic chemicals (steam cracker and steam reforming), principles and processes in production, environmental protection (laws and processes). Other topics includes Chemical industry: Ceramic industries - Portland cement and calcium carbide - Sodium chloride, ammonia, nitric acid, sulphuric acid, caustic soda, soda ash, chlorine and their products - Fats and oils - Soaps, shampoo, detergents, perfumes, paints and tanning - Wood chemicals - Paper industry - Processing of raw materials - Agrochemicals - Chemistry of pesticides - Petrochemical industry - Industrial organic synthesis - Design of specialized polymers - Rubber industry - Dyes: Making matches and bleaches - Fermentation and fermentation based products - Starch industry - Sugar processing in Kenya - Pharmaceuticals and health care products. Students will be required to visit selected industrial sites. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212 and CHEM 341 (CHEM 171 & CHEM 341 For Education Students)*

CHEM 412 Industrial Chemistry II 3 Credits

This course is a continuation of CHEM 411. Topics to be covered include: sodium carbonate, manufacture of hydrogen gas from hydrocarbons, hydrochloric acid, phosphoric acid, electrolytic industries, chlor-alkali industry, surface coatings and man-made fibres. Industrial carbon, coal and natural gas, Industrial fuels: energy; solid fuels; gaseous fuels; liquid fuels. Coal liquefaction. Gasification thermodynamics and kinetics. Fluid bed and fixed bed processes. Water treatment. Pollution prevention and waste management will be covered. This course will be complemented by educational trips to industries. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 411*

CHEM 419 Environmental Chemistry 3 Credits

This course is designed to introduce students to the importance of chemistry in solving the myriad of environmental problems in the atmosphere, biosphere, geosphere, hydrosphere and the astrosphere. Topics of interest include the atmosphere, energy flow, resources and their use; geochemistry, environmental chemistry of water, pollution and its solutions. Environmental Toxicology, Environmental Pollution: Its Causes and Effects, Atmospheric and photochemistry of major gaseous pollutants. Acid rains; production of oxides of carbon, nitrogen and sulphur from fossil fuels. Lead fuel additives as additives as potential health hazards; Effects of pesticide residues on food chains,

eutrophication and environmental health implications. Solutions to Current Energy and Resources Environmental Problems; Green Chemistry; Ozone chemistry. Wastes are among the topics to be covered. Environmental regulations guiding Kenyan industries on environmental pollutions. Rigorous quantitative methods of analysis and the general instrumental techniques will be covered. There will be two lecture hours. This course will be complemented by field trips. *Prerequisite: Consent of the Department*

CHEM 420 Industrial Waste Management 3 Credits

Types of industrial wastes; solids and liquids, nuclear waste. Causes and effects of water, land and air pollution; legislation on pollution; industry's responsibilities. Waste water treatment; air pollution control technologies; Incineration of industrial wastes, responsible use of landfills, recycling; sampling, analysis and management of industrial effluent. The course will be supplemented by educational field trips. There will be three lecture hours each week. *Prerequisite: CHEM 419*

CHEM 422 Forensic Analytical Chemistry 3 Credits

This course is an introduction to forensic analytical chemistry. Topics to be covered include: Drug identification: drug classes, spot tests; Toxicology: ethanol, breath testing, headspace GC, QA/QC, drugs of abuse, drug screening, extraction and confirmation methods (GC/MS, LC/MS), poisons, death investigation, recent developments, case studies; Trace analysis: microscopy-hair, fiber, glass, paint, gunshot/primer analysis, distance evaluations, crime-scene analysis; arson: fire debris crime scene analysis types of accelerants, activated charcoal method, SPME; DNA: biological evidence, crime scene investigation, molecular biology primer DNA analysis, DNA chemistry, satellite repeat DNA, sexual assault evidence, Polymerase Chain Reaction - PCR, Short Tandem Repeat Analysis (STRs), Capillary electrophoresis. This course will be complemented by educational trips to industries. There will be two lecture hours each week and one three-hour laboratory each week. *Prerequisite: CHEM 252*

CHEM 424 Pharmaceutical Chemistry 3 Credits

The mission of this course is to introduce students to the structure, properties and analysis (both qualitative and quantitative) of pharmaceutical agents and metabolites as well as the fundamental techniques used in clinical laboratories. Topics include review of organic functional groups found in drug molecules, some basic concepts in medicinal chemistry as well as methods of pharmaceutical and biomedical analysis such as The drug discovery and development process, drug-target interactions, physicochemical properties related to drug actions, chemistry of OTC inorganic drugs, some common classes of drugs, classified according to their pharmacological effects, and the chemistry of their actions. This course will be complemented by educational trips to industries. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212*

CHEM 425 Electrochemistry 3 Credits

This course has been designed to understand the inter conversion of chemical and electrical energy and to link thermodynamics with electrochemistry and also to understand the concepts of non-equilibrium electrochemistry (conductance, transport number, overvoltage). Topics to be covered includes conductance of electrolytes, specific resistance and conductance, molar and equivalent conductance and cell constant. Conductivity, equilibrium electrochemistry, reference electrodes, heat effect in cells, electrode kinetics,

electrochemical reactions, non-equilibrium electrochemistry, ionics, over voltage and polarization, electrochemical energy conversion (fuel cells and secondary batteries) and industrial electrochemical processes. Numerous problems (with worked solutions) are provided to clarify the concepts. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 231*

CHEM 426 Industrial, microbiological and Biochemical Analysis 3 Credits

This course is designed to introduce students to various techniques employed in Industrial, microbiological and biochemical analysis. Topics to be covered includes; industrial analysis; paints; flash point, separation and analysis of pigments, binders, thinners. Classification and analysis of pesticides. Alloys; composition and estimation of constituents of stainless steel, brass and solder. Microbiological analysis; principle, components used and care of dissecting, brightfield microscope, measurement of cell bacteria. Preparation of bacterial and blood smear, staining of bacteria – negative and gram staining. Sterilization techniques, isolation of fungi from soil. Measurement of growth of bacteria. factors affecting growth of bacteria. Biochemical analysis; protein – lowry method and Bradford method. Estimation of carbohydrates, nucleic acids and vitamins. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 424*

CHEM 428 Aquatic Chemistry 3 Credits

This course is an introduction to the water cycle; general characteristics of water bodies (groundwater, streams, rivers, lakes, estuaries and oceans); Chemistry of continental waters: the water molecule; chemical characteristics of water bodies; basic principles of aquatic chemistry (including equilibria, acid-base interactions, kinetics); Monitoring aquatic systems: approaches for chemical and biological monitoring; analysis of aquatic samples – methods for chemical analysis of water, sediment and biota including extraction, clean up and detection. Chemistry of the oceans: estuarine processes; buffering and CO₂/bicarbonate/carbonate systems; ionic composition and ion balances; acidification of the oceans. Contaminants in aquatic systems: sources, fate, effects and impact on the environment; Water treatment. Water and the law. This course will be complemented by educational trips to industries. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 252.*

CHEM 430 Biochemical Pharmacology 3 Credits

This course is designed to familiarize students with some basic concepts of Pharmacology and to introduce them to the working of a broad range of chemotherapeutic drugs (e.g. Antibacterial, Antiviral, Antifungal and Anticancer drugs) as well as some toxins. The main emphasis of this course will be on learning about the mechanisms of action of the above groups of drugs and how cellular resistance to them develops. Some applications of the drug-resistant mutants as tools for genetic, biochemical and cell biological studies will also be described. Topics to be covered include; Phytochemical studies, Effect of chemical structure on metabolism of drug molecules, Fundamentals of neurochemistry, Anti-platelet and anti-thrombotic drugs, Drugs used to treat cancer, Drugs used to control blood glucose and manage obesity, Drugs used to treat viral infections, Drugs used to manage patients with anxiety or depression. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212.*

CHEM 431 Advanced Organic Chemistry 3 Credits

Topics to be covered includes: Organo-Nitrogen compounds; Active-methylen compounds, Vitamins and Antibiotics; Retrosynthetic analysis and applications; Natural products chemistry covering terpenes, alkaloids and plant pigments is covered. Spectroscopic methods in structure determination of Organic compounds: UV spectroscopy, IR spectroscopy, NMR spectroscopy and Mass spectroscopy. Other topics include synthetic techniques in organic chemistry, reaction mechanisms in both organic and biological systems, organosulphur, organosilicon, and organometallic compounds. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 212.*

CHEM 434 Industrial Catalysis 3 Credits

The course covers adsorption, the nature of the catalyst surface, kinetics of catalytic reactions, catalyst selection and preparation, deactivation and poisoning, and specific catalytic reactions. The types of reactions and the examples considered will depend to some extent on the particular interests of those selecting the course but will include, in any case, nitrogen fixation, Cl chemistry, catalysis in petroleum refining (cracking, reforming, alkylation, hydro refining etc.) and catalysis by transition metal complexes. There will be three lecture hours each week. *Prerequisite: CHEM 342.*

CHEM 442 Nucleic Acids and Recombinant DNA Technology 3 Credits

The course is designed to offer concepts in nucleic acids and DNA technology. Topics to be covered includes: Mendelian inheritance and DNA as a carrier of genetic information. Nucleic acids; RNA and DNA Structure, functions and physiochemical properties of nucleic acids. DNA replication in prokaryotes and eukaryotes. DNA polymerases. The genetic code. Protein synthesis; translation and transcription in prokaryotes and eukaryotes. Gene expression and regulation; The Lac operon. Nucleic acids extractions, purification detection and quantification; Polymerase chain Reactions (PCR) gel electrophoresis. Gene cloning: cloning vectors, plasmids and lambda bacteriophage. Potentials and applications of recombinant DNA technology. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 327.*

CHEM 443 Bio-Inorganic Chemistry 3 Credits

A goal of this course is to relate chemical phenomena with biological activities. Topics to be covered includes: Chemistry of cations, metalloenzymes, and simpler model systems. Reactions of coordinated ligands, Chemistry of sulphur and phosphorus. Chemical modifications of biological macromolecules and their potential effects. There will be three lecture hours each week. *Prerequisite: CHEM 342.*

CHEM 451 Biochemical Techniques 3 Credits

This is a survey of modern biochemical techniques. Such techniques include: isolation and characterization of proteins and DNA from natural sources; peptide mapping; protein finger printing; affinity chromatography of proteins; electrophoresis, ELISA, HPLC separation of sugars and proteins, western blot, northern blot and solid phase synthesis of peptides. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 300.*

CHEM 462 Microbial Biochemistry 3 Credits

This covers major metabolic pathways in prokaryotes in comparison to Eukaryotes. Topic to be covers include: sugar

metabolism in bacteria, nitrogen metabolism in bacteria and viruses, unique metabolic pathways in prokaryotes and biochemical basis of retroviral activity. There will be two lecture hours and one three-hour laboratory each week. *Prerequisite: CHEM 311.*

CHEM 470 Chemistry Project 3 Credits

This course is gives an opportunity to students to make a project representing his/her major area of interest and ability. The course involves title defence, project proposal defences, implementation of project work and final defence of the project. The work is to be supervised by assigned departmental faculty. The project should reflect the student's level of competence and incorporate a variety of skill and originality. *Prerequisite: Consent of the Department.*

CHEM 473 Green Chemistry 3 Credits

This course gives an introduction to green chemistry. Topics to be covered includes: Principles of Green Chemistry, Waste Minimization / Prevention, Synthetic Efficiency, Less Hazardous Materials in Synthesis, Designing Safer Products, Safer Solvents and Auxiliaries, Energy Efficiency, Renewable Feedstock's, Minimal Derivatization, Catalysis, Design for Degradation in Process Controls and Hazard Minimization. There will be three lecture hours each week. *Prerequisite: CHEM 411.*

CHEM 481 Seminar in Chemistry II 2 Credits

This course is a continuation of CHEM 383. In this course, experimentation as well as a written report on a project from any area of chemistry. Oral defence of research results will be done at the end of the research work each student need to prepare written reports of their research work done and present at end of semester. There will be one lecture hour. *Prerequisite: CHEM 383.*

CHEM 499 Industrial Experience 3 Credits

This course is designed to offer industrial training to students for three months in any relevant industry after completing their junior year. The aim is to provide a detailed insight into aspects of company structure and activity through project work, reports and seminars. Assessment of the course will be based on the university attachment policy and a written report submitted. *Prerequisite: Consent of the Department.*

MATH 001 Developmental Mathematics 3 Credits

Review of basic algebra and trigonometry. Course topics to include: linear and non – linear inequalities, absolute values, sets of real numbers, equations of lines, systems of linear equations, exponents, quadratic equations and their graphs, formulas and applications of algebra, elementary trigonometric functions of angles. The student with a grade of C-(minus) and below in mathematics in the KCSE or its equivalent will be required to take MATH 001 before proceeding to his/her required mathematics course by his/her respective department. This course does not apply to the general education requirements

MATH 100 Foundations of Mathematics 3 Credits

This course provides a solid mathematical base for Liberal Arts students. Topics to be covered include: Review of basic algebra, Sets and set operations, exponential and logarithmic functions, relations and functions, applications of statistics. *Prerequisite: A minimum grade of C+ in mathematics in KCSE.*

COSC 111 Computational Mathematics I 3 Credits

For prospective students from other areas of science whose

major areas of specialization require a strong mathematics background. A course in advanced algebra and trigonometry. Topics: Sets and set operations, Functions, exponential and logarithmic functions, trigonometric functions, reduction formulas, trigonometric identities and equations, double angles, half angles, higher order systems of equations, vectors, matrices and their inverses. Applications of matrices in real life. *Prerequisite: A minimum grade of C in mathematics in KCSE.*

COSC 112 Computational Mathematics II 3 Credits

The purpose of this course is to expose students to the elements of differential and integral calculus. Topics include: Functions, limits and derivatives. Techniques of differentiation, applications of the derivative, Integration and its applications. *Prerequisite: A minimum grade of C in COSC 111.*

MATH 104 Applied Mathematics for Health and Allied Sciences 3 Credits

Algebra: logic and true statements, binomial theorem for indices, sets, unions, arithmetic, geometric, progressions, polynomial functions, mapping and functions, complex numbers; matrix algebra. Trigonometric, exponential, logarithmic functions. Polar coordinates in the plane. Differentiation: definition and interpretation, derivatives of elementary functions, derivative rules and application. Numerical Integration. *Prerequisite: A minimum grade of C in mathematics in KCSE*

MATH 113 Business Mathematics I 3 Credits

Sets and set operations, sets of real numbers and their properties and operations, arithmetic and geometric progressions, linear and quadratic equations, in equalities and their applications, functions and graphs, lines, parabolas and systems of equations, exponential and logarithmic functions and mathematics of finance, matrix algebra and linear programming, applications and limitations of linear programming, an introduction to the elements of probability theory, and an introduction to Network Analysis. *Prerequisite: A minimum grade of C in mathematics in KCSE.*

MATH 114 Business Mathematics II 3 Credits

This course is a sequel to Business mathematics I. The course exposes students to the calculus of functions of one variable: limits and continuity, differentiation, applications of the derivative, differentials and their use in approximation, integration and its applications in business and economics, an introduction to functions of several variables, and partial derivatives. *Prerequisite: A minimum grade of C- in MATH 113*

Note: No student is granted credit in more than one course from this group of courses: MATH 113, MATH 124.

MATH 121 Discrete Mathematics 3 Credits

This is an introductory course in set theory and symbolic logic. Topics include: sets and elements, finite and infinite sets, subsets, set operations, Venn diagrams, propositions and truth tables, algebra of propositions, conditional statements, arguments and logical implications, applications in electronics and other fields. Functions and algorithms, Matrix algebra. Elements of graph theory, trees and diagraphs. A field visit in industries will be required of every student. *Prerequisite: A minimum grade of C in mathematics in KCSE or Departmental consent.*

MATH 124 Basic Mathematics and Analytical Geometry 3 Credits

Functions; domain, range; polynomial, rational, exponential and logarithmic functions. Distance from point to a line, angle

between straight lines. Circles: Standard equation, equation of tangent, length of tangent from external point. Orthogonal circles. Conic Sections (Parabola, ellipse, hyperbola): Definitions, standard equations, graphs, analysis, tangent and normal. Polar and parametric equations: Conversions from polar to rectangular and vice versa. Polar and parametric equations of conic sections. Trigonometric and hyperbolic functions: Graphs and their inverses, trigonometric identities, addition and multiple angles. Factor and Remainder theorems and their applications. *Prerequisite: A minimum grade of C+ in mathematics in KCSE or Departmental consent.*

MATH 127 Differential Calculus 3 Credits

Limits: Definition, techniques of evaluating limits, continuity, one sided limits, limits at infinity. Differentiation: Definition, differentiation using definition, properties of derivatives. Techniques of differentiation: power rule, product rule, quotient rule, chain rule, trigonometric functions, exponential, logarithmic, implicit, hyperbolic, parametric, inverse functions. Higher order derivatives. Applications of derivatives: Increasing/decreasing functions, concavity, curve sketching and asymptotes. Tangent and normal. Related rates. Optimization (applied maximum and minimum). Mean value theorem, indeterminate forms and L'Hospital rule. Linear and quadratic approximations. Partial derivatives. *Prerequisite: A minimum grade of C- in MATH 124.*

MATH 150 Linear Algebra I 3 Credits

Matrices: Order, addition, subtraction, scalar multiplication and matrix multiplication, row echelon forms. Determinants; Properties, determinants for general square matrices by permutation and cofactor methods. Inverse of square matrix. Systems of linear equations; solution by substitution, and elimination method. Gauss Jordan elimination method, Cramm's rule, inverse matrix method. Vectors; addition, scalar multiplication, dot and cross products, magnitude. Vector Spaces; Definition and examples, subspace, linear independence and dependence, basis and dimension. Linear transformation: Definition and examples, matrix representation relative to standard basis, range and kernel (null space), rank and nullity. *Prerequisite: A minimum grade of C+ or Departmental consent.*

MATH 227 Integral Calculus 3 Credits

Antiderivates and indefinite integrals. Riemann sums and definite integrals. Fundamental theorem of Calculus. Techniques of integration: Power rule, substitution, trigonometric functions, integration by parts including tabular form, partial fractions, trigonometric substitution. Powers and products of sines and cosines. Applications of integration: Area between curves, Volumes of revolution: Disk, Washer and cylindrical shells method, arc length, surface area of revolution. Real life problems involving integration. Numerical integration: Trapezoidal and Simpson's rule. Double Integrals over Rectangles, Iterated Integrals, Double Integrals over General Regions, Double Integrals in Polar Coordinates, Triple Integrals. *Prerequisite: A minimum grade of C- in MATH 127.*

MATH 240 Real Analysis I 3 Credits

Set theory: Set builder notation, union, intersection, difference, De Morgan laws. Real numbers: Bounded and unbounded sets, supremum and infimum, completeness axiom, interior and exterior, open and closed sets, closure of a set, countable and uncountable sets. Neighbourhoods. Sequence and series: Limit point, limit inferior and superior, convergent sequence, monotone sequence, subsequence, Cauchy sequence. Series:

Tests of convergence, Cauchy's root test, D'Alberts ratio test, integral test, alternating series test. Absolute and conditional convergence of series. Real valued functions: limit of a function, continuity and uniform continuity. Metric spaces: definition, examples, neighbourhoods in metric spaces. *Prerequisite: A minimum grade of C- in MATH 127.*

MATH 248 Ordinary Differential Equations I 3 Credits

Classification of differential equations. Differential equations associated to primitive equations. First order differential equations: separable, homogeneous, near homogeneous, exact, integrating factors for exactness, linear, Bernoulli. Applications of first order differential equations. Second and higher order differential equations: homogeneous with constant coefficients. The Wronskian and its significance in solution of differential equations. Uniqueness and existence of solutions. Non-homogeneous differential equations: Eulers equations, Method of undetermined coefficients and variation of parameters. Application to simple harmonic motion and real-life problems. Power series solutions at ordinary points. Systems of linear differential equations. *Prerequisite: A minimum grade of C- in MATH 227.*

MATH 274 Complex Analysis I 3 Credits

Complex numbers: addition, subtraction, multiplication, division, conjugate, absolute value, complex plane and geometric representation, polar form, powers and roots, nth roots of unity. Elementary complex functions: polynomial, exponential, trigonometric, hyperbolic, logarithmic, inverse trigonometric, inverse hyperbolic. Differentiation of complex functions: limits, continuity, derivatives, Cauchy Riemann equations, harmonic functions. Complex integration: Contour and line integration, Cauchy's integral theorem and formula for nth derivative. Cauchy's residue theorem. *Prerequisite: A minimum grade of C- in MATH 240.*

MATH 327 Vector Analysis 3 Credits

This course covers topics in vector analysis. Vector Algebra: Introduction: scalar and vector quantities, vector representation, components of a given vector, vectors in space, direction cosines, scalar product of two vectors, vector, product of two vectors, angle between two vectors, direction ratios, triple products. Vector Differentiation: Differentiation of vectors, partial differentiation of vectors, scalar and vector fields, summary of grad, div and curl. Vector Integration: Line integrals, volume integrals, surface integrals, conservative vector fields, divergence theorem (Gauss' theorem), Stokes theorem, direction of unit normal vectors to a surface S and Green's theorem. *Prerequisite: Minimum grade of C- in MATH 227.*

MATH 330 Operations Research I 3 Credits

A study of the linear programming (LP) problems including requirements for an LP problem. Formulation of linear optimization models, convex analysis in $\mathbb{R}^n$, graphical and algebraic solution methods, the Simplex Algorithm, the revised Simplex method, concepts in economics, viz. supply, demand and elasticity, duality, sensitivity analysis, solutions by computers, the classical transportation model, cautions of linear programming methods, applications of linear programming. A field visit to industries is required. *Prerequisite: A minimum grade of C- in MATH 240 or Departmental consent.*

MATH 336 Numerical Analysis I 3 Credits

The course will cover the following topics; Number systems, Error analysis; solutions of numerical algebraic and transcendental equations; bisection method; regula falsi

method; Newton - Raphson method; order of convergence; solution of simultaneous linear algebraic equations; Gauss elimination method; Gauss - Jordan method; method of triangularization; Crout's method; Gauss - Jacobi method; Gauss - Seidel method; differences - operators; forward and backward difference tables; Newton's forward and backward formulae; Gauss forward and backward formulae; Stirlings formula; interpolation (for unequal intervals); Lagrange's formula and inverse interpolation. A field visit to industries is required. *Prerequisite: A minimum grade of C- in MATH 248.*

MATH 340 Real Analysis II 3 Credits

This is a sequel to Real Analysis I covering; Infinite series, power series, radius of convergence, monotonic functions, functions of bounded variation, rectifiable paths, mappings, Riemann Integrals, Riemann Stieltjes integrals, improper integrals, exponents and logarithms and Fourier series. *Prerequisite: A minimum grade of C- in MATH 240.*

MATH 342 Boolean Algebra and Its Applications 3 Credits

This course is a sequel to MATH 121. Algebra of sets, introduction and definition, symbolic logic, algebra of propositions, switching algebra, relay circuits and control problems, circuits for arithmetic computation. Karnaughmaps. A field visit to industries is required. *Prerequisites: A minimum grade of C- in MATH 121 and MATH227 or COSC 261.*

MATH 345 Graph Theory Credits

Graph theory in mathematics and science. Different types of graphs, Graph operations, Binary relations and graphs, Functions, permutations and graphs, Graph descriptions, Trees and their properties, Degree functions of graphs and their properties, Efficient algorithms for recognition of degree functions for graphs of different types, Spanning trees of a graph, their properties and their enumeration, The Prüfer coding of a trees. Bipartite graphs and their properties. *Prerequisite: A minimum grade of C- in MATH 342.*

MATH 346 Group Theory Credits

Sets, set mappings, integers, groups, abelian and permutation groups, subgroups, normal sub groups, quotient groups, homomorphism, isomorphisms, automorphism, Cayley's theorem, Sylow's theorem, ring theory (homomorphism, ideals, quotient rings, field of quotients, Euclidean rings, rings of polynomials over fields). *Prerequisite: A minimum grade of C- in MATH 240.*

MATH 354 Ring Theory 3 Credits

Review of rings, vector spaces and modules, linear dependence, dual spaces, inner products, field, extension fields, roots, constructability, solvability by radicals, linear transformations, algebra of transformation, characteristic roots, canonical forms, Ideals and factor rings, Prime and maximal ideals, Integral domain, Principal ideal domains, direct sum of rings and modules. *Prerequisite: A minimum grade of C- in MATH 346.*

MATH 355 Dynamics 3 Credits

Motion of a straight line: Equations of motion -acceleration of falling bodies-vertical motion under gravity-motion down a smooth inclined plane. Newton's laws of motion, Newton's law of gravitation-conservation of linear momentum-work done by an elastic string-conservative forces-energy-potential energy and Kinetic energy-principle of energy. Path of a projectile-Greatest height-time of flight-range on an inclined plane

through the point of projection-Maximum range. Radial and transverse components of velocity and acceleration – areal velocity – central orbits – Differential equation of a central orbit in polar coordinates. Simple Amplitude, periodic time, phase-composition of two simple harmonic motions of the same period in a straight line and in two perpendicular lines. Impact on a fixed surface: Impulsive force-Impact on a smooth fixed plane –Direct and oblique impact of two smooth spheres – loss of Kinetic energy during direct and oblique impacts. *Prerequisite: A minimum grade of C- in MATH 227.*

MATH 371 Linear Algebra II **3 Credits**

This course a sequel to MATH 150 designed to cover the following topics: Linear algebra of linear transformations, Eigenvalues values and Eigenvectors, diagonalization of real quadratic forms, Transformations of matrices, congruence, orthogonal transformations, orthogonal congruence, definite and semi-definite forms. *Prerequisite: A minimum grade of C- in MATH240.*

MATH 375 Algebraic Structures **3 Credits**

Binary operations, groups, groups of permutations, Cosets and Lagrange's Theorem, homomorphisms and isomorphisms. Conjugacy, Conjugacy classes, conjugacy in symmetric groups, the class formula. Normal subgroups. Factor groups. The first isomorphism theorem, rings, fields and polynomials. Finite fields, finite geometry. Introduction to codes. *Prerequisite: A minimum grade of C- in MATH 150, MATH 227.*

MATH 380 Analytic Applied Mathematics **3 Credits**

This course presents the theory and applications of partial differential equations, which are differential equations involving functions of more than one variable. These are used to model phenomena in two dimensions or higher, and situations where two or more independent variables affect the changes in a function. Topics to be covered in this introductory PDE course include wave phenomena, diffusion, and stationary problems. Analytical tools such as Fourier series, separation of variables, Green's functions and distributions will be presented. *Prerequisite: A minimum grade of C- in MATH 248.*

MATH 385 Fluid Mechanics **3 Credits**

This course will cover the following topics: Fluids flows, Types of flows, Steady Flow and Uniform Flow, Path line, Streamline and Streak line, Flow Rate and Mean Velocity, Fluid System and Control Volume, Equation of Continuity, One- Two- and Three-Dimensional Flow modeling fluids, conservative derivative, Hydrostatic and Archimedes' principle, Euler's equations of motion, Bernoulli's streamline theorem Analysis and Clarification of Fluid motion, Fluid equations of motion and Incompressible viscous flows.

Prerequisite: A minimum grade of C- in MATH 248.

MATH 401 Computer Applications in Mathematics **3 Credits**

This course provides an insight to the various Computer programs used in mathematics. Mathematical packages. Role of computers in mathematical analysis and problem solving. Introduction mathematical software such as MATLAB, MATHCAD, LATEX and MATHEMATICA. Numerical solution of non-linear equations. Writing programs to implement numerical algorithms. Application of numerical analysis. Linear and polynomial algebra. Exact and numerical optimization. Calculus and differential equations (analytic and numerical

solutions of ODEs). Plane and solid geometry. Functions and function files. Local and global variables. Inline functions. Programming in Matlab: relational and logical operators, conditional statements, loops and nested loops. Linear algebra Applications in numerical analysis: solving a one-variable equation, optimization, integration and ordinary differential equations. BibTeX and graphics. Presentations, drawing and programming. *Prerequisite: Minimum grade of C- in COSC 161, MATH 336.*

MATH 405 Number Theory **3 Credits**

In this course, the student will be exposed to: congruency, prime power moduli, residues, quadratic reciprocity, functions of number theory, Diophantine equations, linear and quadratic functions, continued fractions, irrational numbers, and distribution of primes, algebraic numbers, fields, factorization, and partition functions, Euclid's algorithm, Wilson's theorem, Primitive roots and indices, Fermat's theorem. *Prerequisite: A minimum grade of C- in MATH 327.*

MATH 408 Differential Geometry **3 Credits**

One Parameter family of Surfaces: Envelope, Characteristics, edge of regression, Developable surfaces. Developables Associated with a Curve: Osculating developable, Polar developable, Rectifying developable. Two- parameter Family of Surfaces: Envelope, Characteristics points, Curvilinear coordinates: Curvilinear coordinates, orthogonal coordinate system in space, scalar factors, general curvilinear coordinate system, transformation equations, element of arc ds and element of volume dV in orthogonal curvilinear coordinates and particular orthogonal systems, First order magnitudes, Directions on a surface, The normal, Second order magnitudes, Derivatives of n. Curves on a Surface: Principal directions and curvatures, First and second curvatures, Euler's theorems, Dupin's indicatrix, The surfaces $z = f(x,y)$, Surface of revolution. Conjugate directions, Conjugate systems. Asymptotic lines, Curvature and torsion, Isometric parameters, Null lines, or minimal curves. Geodesics and Geodesic Parallels: Geodesics: Geodesic property, Equation of Geodesics, Surface of revolution, Torsion of Geodesic. Curves in Relation to Geodesics: Bonnet's theorem, Joachimsthal's theorems, Vector curvature, Geodesic curvature, g , Other formulae for g , Bonnet's formula. *Prerequisite: A minimum grade of C- in MATH 248.*

MATH 411 Field Theory **3 Credits**

Fields, examples, Algebraic and transcendental elements, Irreducible polynomials. Gauss Lemma, Eisenstein's criterion, Adjunction of roots, Kronecker's theorem, algebraic extensions, algebraically closed fields. Splitting fields, Normal extensions, multiple roots, finite fields, Separable extensions, perfect fields, primitive elements, Lagrange's theorem on primitive elements. Automorphism groups and fixed fields, Galois extensions, Fundamental theorem of Galois theory, Fundamental theorem of algebra, Roots of unity and cyclotomic polynomials. Cyclic extension, Polynomials solvable by radicals, Symmetric functions, cyclotomic extension, quintic equation and solvability by radicals. *Prerequisite: A minimum grade of C- in MATH 354.*

MATH 412 Galois Theory **3 Credits**

Constructions and extensions fields, Separability, normality & splitting fields, Field automorphisms & Galois groups, The fundamental theorem of Galois Theory, Solvable groups and the insolubility of the general quintic, Ruler and Compass constructions, Calculation of Galois groups, Transcendence. *Prerequisite: A minimum grade of C- in MATH 346.*

MATH 414 Topology**3 Credits**

This course aims at introducing the student with some knowledge of calculus to the elements of the topology: Topics to include: Topological spaces, bases and subbases, continuous mappings, metric and normed spaces, countability, convergence, sequences, separation of axioms, compactness, connectedness and homotopy theory. *Prerequisite: A minimum grade of C- in MATH 340.*

MATH 415 Measure Theory and Integration**3 Credits**

General measures, measurability, Caratheodory Extension theorem and construction of measures, integration theory, convergence theorems, L_p -spaces, absolute continuity, differentiation of monotone functions, Radon-Nikodym theorem, product measures, Fubini's theorem, signed measures, Riesz Representation theorems for classical Banach spaces. *Prerequisite: A minimum grade of C- in MATH 340*

MATH 427 Ordinary Differential Equations II**3 Credits**

An introduction to differential equations and their applications, based upon knowledge of calculus. Topics include applications complementary and complete solutions, solutions by Laplace Transforms, gamma and beta functions and applications. Solution by series, Taylor, Frobenius and others, numerical evaluation of solutions, systems of differential equations, matrices, Eigenvalues and Eigenvectors. *Prerequisite: A minimum grade of C- in MATH 248.*

MATH 430 Operations Research II**3 Credits**

The course covers the deterministic models and methods of solutions generally used in operations research. Topics to be covered include: Network analysis and flows, combinatorial optimization techniques, optimization in networks, non-probabilistic inventory models, critical path analysis, the transshipment model, maximal flows in networks. Applications to problems in agriculture, industry and public policy will be emphasized here. A field visit in industries will be required of every student. *Prerequisite: A minimum grade of C- in MATH 330.*

MATH 432 Mathematical Modeling**3 Credits**

Foundations of mathematical modeling, construction of mathematical models in the natural sciences, agriculture, economics, physics and in mechanics and other disciplines; mathematical modeling education in secondary schools. A field visit in industries will be required of every student. *Prerequisite: A minimum grade of C- in MATH 430.*

MATH 436 Numerical Analysis II**3 Credits**

Numerical differentiations: Newton's forward and backward formulae to compute the derivatives – Derivative using Stirlings formulae – to find maxima and minima of the function given the tabular values. Numerical Integration: Newton – Cote's formula – Trapezoidal rule – Simpson's 1/3rd and 3/8th rules – Gaussian quadrature – two points and three points formulae. Difference equation order and degree of a difference equation – solving homogeneous and non – homogeneous linear difference equations. Taylor series method – Euler's method – improved and modified Euler method; Runge- Kuttamethod(fourth order Runge -Kutta method only); numerical solution of ODE(for first order only):Milne's predictor corrector formulae – Adam-Bashforth predictor corrector formulae; solution of ordinary differential equations by finite difference method (for second order ODE).A field visit in industries will be required of every student. *Prerequisite: A minimum grade of C- in MATH 336.*

MATH 445 Partial Differential Equations**3 Credits**

A rigorous introduction to PDE topics include physical examples of PDE's, method of characteristics. D'Alembert's formula, classification of equations. Hyperbolic PDE's: Wave equation, Cauchy problem, D'Alembert's solution, Characteristics, Separation of variables. Parabolic PDE's: Heat equation, Separation of variables. Elliptic PDE's: Laplace's equation, Dirichlet problem, 2-dim: Harmonic functions, 3-dim: Fundamental solution and their applications. Laplace transforms: Definition and basic theory, Examples of transforms, Shift theorem, Transforms of derivatives, Applications to ODE's and systems, Applications to PDE's. *Prerequisite: A minimum grade of C- in MATH 248.*

MATH 448 Methods of Fluid Mechanics**3 Credits**

Classifications of PDE's and their properties, basics of the finite difference method, finite difference solutions of ODE, finite difference solutions of time-dependent linear PDEs, advection equation, heat equation, stability and dispersion properties of time differencing schemes, numerical solution of finite difference approximation of elliptic equations, special advection schemes, energetically consistent finite difference schemes, the finite element method. *Prerequisite: A minimum grade of C- in MATH 385, MATH 445.*

MATH 474 Complex Analysis II**3 Credits**

Zeros-Cauchy's Inequality, Liouville's theorem, fundamental theorem of algebra, maximum modulus theorem, Gauss mean value theorem, Gauss mean value theorem for a harmonic function on a circle, Taylor's series, Laurent's series, isolated singularities (Removable singularity, pole and essential singularity), residues, residue theorem, evaluation using the calculus of residues, integration on the unit circle, meromorphic functions, principle of argument, Rouché's theorem. *Prerequisite: A minimum grade of C- in MATH 274*

MATH 480 Functional Analysis**3 Credits**

Definitions of metric spaces and examples, open sets, closed sets, neighbourhoods, convergence of sequences, Cauchy sequences, completeness. Definition of normed space and examples, properties of normed spaces, Banach spaces, finite dimensional normed spaces, subspaces, linear operators, bounded linear operators, linear functionals, linear operators and linear functionals on finite dimensional spaces, normed space of operators, dual space. Definition of inner product space and examples, properties of inner product spaces, Hilbert spaces, orthogonal complements and indirect sums, orthogonal sets and sequences, total orthonormal sets and sequences, representation of functionals on Hilbert space. Zorn's Lemma, Hahn Banach Theorem, Uniform Boundedness Theorem, Open Mapping Theorem, Closed Graph Theorem. *Prerequisite: A minimum grade of C- in MATH 414.*

MATH 483 Coding Theory**3 Credits**

Introduction to the main problem of coding theory, hamming distance, code detection, code correction, ISBN code, length and weight of a code, perfect codes. linear codes, generator matrices and standard forms, encoding, nearest neighbour decoding, dual code, parity check matrix, syndrome decoding, incomplete decoding, hamming codes and decoding, finite fields, cyclic codes, bch codes, Reed-Solomon codes, mention of burst error-correcting codes for compact discs and DVDs, and of new methods from algebraic geometry. *Prerequisite: A minimum grade of C- in COSC 161 and MATH 336.*

MATH 490 Industrial Experience 3 Credits

This course is designed to offer industrial training to students for three months in any relevant industry after completing their junior year. The aim is to provide a detailed insight into aspects of company/industrial structure and activity through project work, reports and seminars. Assessment of the course will be based on the supervisor and course lecturer assessments and a written report submitted. *Prerequisite: Consent of the Department.*

MATH 499 Mathematics Project 3Credits

The students are given the choice to select their own topics in any area in mathematics and each is required to submit a written report and also to give an oral report on what he has researched on. A field visit in industries will be required of every student. *Prerequisites: Completion of the 300 level series of the required mathematics courses, A minimum grade of C- in ENGL 112.*

PHYS 100 Concepts of Physical Sciences 2 Credits

A non - mathematical course designed to interpret science to the liberal arts students. It considers all the principles and concepts of physics. This course does not apply to a minor in physics or to a major in mathematics.

PHYS 140 Introductory Geophysics 2 Credits

The course topics to be covered include: The solar system, Earth's orbit and rotation. Equation of time. Shape of the earth. The reference ellipsoid. Geoid. Gravitation: International gravity formula, measurement, reduction, elementary interpretation of gravity anomalies. Seismology; natural seismicity of the earth, elastic wave propagation through the earth, seismic structure of earth. Geomagnetism; geomagnetic field (elements) and variations, Dipole and non-dipole field, Magnetic anomalies, Measurements and interpretation. Geodynamics: plate tectonic theory, crust movement. Earth's surface features; seismic belts, islands, arcs, mountain chains, ocean ridges, and trenches.

PHYS 155 General Physics 3 Credits

The course topics to be covered include: Units and dimensions, dimensional analysis and derivation of equations connecting physical quantities, mechanics and properties of matter, rectilinear motion, Newton's laws of motion and their applications, composition and resolution of forces, uniform circular motion, Newton's law of gravitation, simple harmonic motion, determination of g, conservation of energy and momentum, viscosity, surface tension, elasticity, elastic constants and their importance. Two lecture hours and a three hours laboratory each week. *Prerequisite: A minimum grade of C-in COSC 111 or Departmental consent. Secondary school-level Physics strongly recommended.*

PHYS 160 Fundamentals of Mechanics 3 Credits

Vectors; Composition and resolution of coplanar vectors. Forces and equilibrium. Free-body diagram techniques. Moments, couple and torque. Particle kinematics. Newton's laws and particle dynamics, Newtonian Mechanics, Newton's laws of motion and their limitations, inertial frames, Galilean transformations, relative velocity; non-inertial frames, conservation laws, Circular motion of particles. Work and energy, linear and angular momentum. Conservation laws, C.M frame of reference, collision of two particles, rocket, angular momentum and torque. Potential energy, potential energy of two or more masses. Central forces. Planetary motion. Mechanics of systems of particles and rigid bodies Gravitational potential and field, Newton's law of gravitation, cases of thin spherical shell and spheres, rocket motion, rotating rigid body,

angular momentum and moment of inertia, theorems on inertia, calculation of moment of inertia for important cases, rotational kinetic energy, fly-wheel, fluid dynamics: Bernoulli's equation, viscosity, Poiseulle's formula. Two lecture hours and a three hours laboratory per week. *Prerequisite: A minimum grade of C+ in physics in KCSE or A minimum grade of C- in PHYS 155.*

PHYS 165 Heat and Thermodynamics 3 Credits

The course will cover thermal physics: Temperature and temperature scales. Thermal expansion of solids. Quantity of heat. Heattransport. Thermal equilibrium and Zeroth law. Heat and Work. Behavior of Gases: Isothermal and Adiabatic changes - PV diagrams; Joules Law and experiment; Departure from ideal gases; Boyles temperature and critical constants Thomson effect, porous plug experiment, First law of Thermodynamics. Thermodynamic processes. Ideal gas laws. Vander Waals equation of state. Carnot heat engines and refrigerators. Second law of thermodynamics. Entropy: principle of increase of entropy, Clausius inequality; Thermodynamical relations: application of laws of thermodynamics; Enthalpy; Helmholtz and Gibbs free energy. Third law of thermodynamics. Two lecture hours and a three hours laboratory per week. *Prerequisite: A minimum grade of C+ in physics in KCSE or A minimum grade of C- in PHYS 155.*

PHYS 170 Geometric Optics 3 Credits

Introduction: the wave equation and its solutions properties of waves, wavefront, the electromagnetic spectrum, light sources (thermionic and atomic) characteristics of light: radiometric and photometric quantities and units. Rectilinear propagation of light. Laws of reflection and refraction. Fermat's principle. Plane surfaces and prisms. Spherical surfaces. Lenses. Spherical mirrors. Lens aberration. Optical equipment (Microscopes, telescopes, prism binoculars, camera and prism spectrometer). *Prerequisite: A minimum grade of C+ in physics in KCSE or A minimum grade of C- in PHYS 155.*

PHYS 180 Introduction to Quantum Physics 3 Credits

Development of modern atomic theory. Failure of classical theories and experimental basis for quantum theory: Matter waves and their statistical interpretation; wave functions, state functions and their basic properties; blackbody radiation, heat capacity, photoelectric effect, Compton effect, etc. Particle-wave duality of matter. De Broglie waves. Uncertainty principle. Structure and properties of atoms. The Bohr model of the atom. Emission and absorption spectra, Radioactivity, X-rays. *Prerequisite: A minimum grade of C+ in physics in KCSE or A minimum grade of C- in PHYS 155.*

PHYS 200 Applied Physics and Bioinstrumentation 3 Credits

This course is specifically designed for students pursuing studies in Medical Laboratory Sciences. Topics to be covered include: light, electromagnetic waves, production and use of X-rays, optics; mirrors, lenses, real and virtual images, magnification of images, focal lengths and focal points, power of lens, optoelectronics, circular motion, application of circular motion to centrifuges, basic electronics; power supplies used, transformers used, electricity and magnetism, electric circuits, electric safety, electric energy, power as relate to radiography, basic principles of bioinstrumentation; diffusion and diffusion equation, Langevin equation, fluid dynamics, low Reynolds numbers, basic nuclear medicine; types of radiation, half - life and radioactive decay, interactions of radiation, detection instrumentations, and basic radiation protection. Two lecture hours and a three hours laboratory session per week.

PHYS 216 Waves and Oscillations**Credits**

Periodic motions. Superposition of periodic motions. The simple harmonic oscillator. Damped harmonic oscillator. Forced oscillations and resonance. Coupled oscillations, normal coordinates, degrees of freedom and normal modes of vibration. Transverse waves. The wave equation. Characteristic impedance of waves on a string. Reflection and transmission coefficients. Longitudinal waves. Acoustic phenomena; interference and beats. Standing waves impedance matching; waves on a string; standing waves, standing wave ratio; phase and group velocity; longitudinal waves in gases, solids; reflection and transmission of sound waves and Eigen frequencies. Acoustic measurements and applications. Doppler effect. Group and phase velocity. Introduction to Fourier analysis. Two lecture hours and a three-hour laboratory each week. *Prerequisite: A minimum grade of C- in PHYS 152.*

PHYS 217 Mechanics II**2 Credits**

The topics of study in this course include: The Angular Momentum: conservation, the center of mass, radius of gyration, single particles, several particles. Circular orbits and stability. Gravitational interaction: the law of gravitation, gravitational field, and potential, inertial and gravitational mass. Variation in gravitational field strength due to latitude, and altitude. Motion of planets and satellites – geostationary orbits. Relative velocity. Uniform relative translational motion. The Galilean transformation. Uniform relative rotational motion. Motion relative to the Earth. The Lorentz transformation. Lorentz transformation of velocities and accelerations. Consequences of the Lorentz transformation. Fizeau and Michelson-Morley experiments. *Pre-requisite: A minimum grade of C- in PHYS 160 (Fundamentals of Mechanics).*

PHYS 225 Classical Mechanics**3 Credits**

Lagrangian Mechanics: generalized co-ordinates: holonomic systems; calculus of variation; Hamilton's principle and Lagrange's equation: applications; Hamiltonian Dynamics: Hamilton's functions, canonical equations of Hamilton; cyclic co-ordinates and conservation theorems; cononical transformations; Poisson brackets and properties, phase space and Liouville's theorem: two body central force problem, reduction to the equivalent one body problem, The equations of motion and first integral: Differential equation for the orbit, Inverse square law of force and deduction of Keplers laws; scattering in a central force field, Rutherford scattering cross-section. *Prerequisite: A minimum grade of C- in PHYS 160*

PHYS 231 Electricity and Magnetism I**3 Credits**

Electrostatics: electric charge, coulomb's law, electric field, lines of electric force and electric flux. Gauss's law, electric potential and electric potential energy. Capacitors and capacitance, energy storage in capacitors, effect of dielectrics on capacitance. DC circuits; current, resistance, Ohm's law. Kirchhoff's laws, network theorems. Voltage measurement, Potentiometer, Wheatstone bridge. Magnetic field, magnetic flux, force on moving charge in a magnetic field, torque on a current loop, magnetic dipole. Magnetic induction: Faraday's laws of magnetic induction, self and mutual induction. Hysteresis. Energy in magnetic fields. *Prerequisite: A minimum grade of C- in PHYS 180.*

PHYS 232 Electricity and Magnetism II**3 Credits**

Gauss's law and its applications. Electric dipoles. Dielectrics. Modified Gauss's law. Solutions to Laplace's and Poisson's equations. Maxwell's electromagnetic equations.

Electromagnetic radiation. A.C. circuits: generation of sinusoidal waveforms, rms value. AC in resistors, capacitors and inductors. Series and parallel LCR circuits. Resonance. Power in AC circuits. AC bridges, impedance and admittance. Filters. Delay lines. Transformers. Transmission lines. A field visit in industries will be required of every student. *Prerequisite: A minimum grade of C- in PHYS 231.*

PHYS 233 Introduction to Geology**2 Credits**

This course involves the study of: Introduction to Earth Sciences: The Earth as a planetary body and its origin and age. Dynamic Earth: An introduction to the internal structure of the Earth and the concept of plate tectonics as a mechanism for plate motion, mountain building, subduction, basin formation, and long-term geological evolution on a continental scale. Geological Materials: Processes of formation of igneous, sedimentary, and metamorphic rocks. The description of hand specimens and thin sections, of rocks and minerals using physical and optical properties and recording observations coherently. Related geological materials to environments of formation. Mineral geology. An academic trip is a requirement in this course.

PHYS 240 Introduction to Geochemistry**2 Credits**

This course involves the study of: Fundamentals: Nuclear chemistry, Thermodynamics of Geochemical processes, Kinetics of Geochemical processes, Acid, bases and chemical weathering. Essential tools of Geochemistry and their applications: Trace element behavior, Radiogenic and stable Isotopes, Phase Equilibria. Catagenesis and metagenesis, petroleum alteration. Geochemical Processes: Nucleosynthesis, Planetary Formation, Earth Differentiation and Structure, Geochemical Cycles on the Earth Surface. *Pre-requisite: A minimum of C+ in CHEM 213.*

PHYS 242 Physical Processes of the Earth**2 Credits**

This course involves the study of: Earth structure. Principal tectonic features of the Earth. Continental crust structure. Plate tectonics. Relative, finite, and absolute plate motions. Triple junctions. Hot spots. Satellite techniques. Convection currents. Driving forces of plate tectonics. Divergent margins. Continental rifting. Ocean spreading. Transform faults. Convergent margins. Subduction zones. Consuming margins. Melange. Collision. Models of collisional deformation. Orogenic belts. Continent reconstruction. The Wilson cycle. *Pre-requisite: A minimum of C+ in PHYS 233*

PHYS 244 Geothermics**2 Credits**

This course involves the study of: Principles of heat generation, flow and manifestation in the Earth, introduction to geothermal parameters: Temperature, heat, material properties, and heat flow, enthalpy and entropy. Geothermal Energy: Heat sources in the Earth; heat flow and geothermal gradient; geothermal potential and its distribution across the Earth. Geothermal systems: Classification, structure, and function; thermal manifestations of geothermal systems. Geothermometers. Geothermal fluids. Geophysical Exploration: Geophysical techniques applicable to the detection of geothermal resources; geothermal drilling and well logging. Appraisal and assessment of geothermal potential. The exploitation of geothermal systems and fields: Overview; pollution and environmental concerns; geotechnical hazards; case studies. *Pre-requisite: A minimum of C+ in PHYS 165.*

PHYS 246 Earth Materials**2 Credits**

This course involves the study of: Introduction to geological environments, Igneous processes: Plate tectonics and

magma origin, compositions and compositional variations, crystallization of magma, basalts, subduction zones, andesite and granites. Sedimentary processes: Weathering, chemical and biological controls, transport and deposition of detrital sediments, compositional maturity of detrital sediments, chemical and biological controls on rock formation, carbonates, evaporates, and banded iron formation. Metamorphic processes: Causes and types of metamorphism, classification. Surface processes: Factors that control soil formation identify soil types and ore deposits-economic minerals. *Pre-requisite: A minimum of C+ in PHYS 233.*

PHYS 255 Quantum Mechanics 3 Credits

Hamiltonian operators. Schrödinger equation. Time-dependent Schrödinger equation to operators; superposition principle; physical interpretation of wave function and probability current density; Expectation values; proof of uncertainty principle; wave packets; linear operators; Eigenfunctions and eigenvalues; Orthogonal systems; Expansion in eigenfunction and completeness relation; Hermitian operators; parity operator; commutation rule; Equation of motion; Time independent Schrödinger equation and the concept of stationary states; Problems in one dimension: (i) Zero potential (the free particle case) (ii) Infinite square well potential (particle in a box), (iii) Potential step (reflectance and transmittance), (iv) Potential barrier, (v) Rectangular potential well (vi) Periodic potential, (vii) Linear Harmonic Oscillator. The Schrödinger equation for spherically symmetric potential; Angular momentum operators, hydrogen atom Born's probability density. Potential barriers and tunneling. Square well potential. Harmonic oscillator. Particle in a box and in a sphere. Hydrogen atom and atomic orbitals. Postulates of quantum mechanics. Hermitian operators. Complementarity. Uncertainty principle. Matrix mechanics. Angular momentum operators. Eigen values and eigen functions of angular momentum and spin. Clebsch-Gordon series. The Harmonic Oscillator, properties of eigenfunctions, Transition between states, Perturbation theory, Variational methods, Schrödinger equation for a one electron atom, orbital angular momentum, spherical harmonics, spin-orbit interaction, Quantum number j , Spatial degeneracy of the wavefunction, solutions of the radial equation, Scattering theory, Hilbert space. *Prerequisite: A minimum grade of C- in PHYS 180.*

PHYS 300 Properties of Matter 3 Credits

Molecules and bonding, inter-atomic forces, states of matter, crystalline and amorphous structures, liquids and liquid crystals, Gases (ideal and nearly ideal), inter-atomic potentials, kinetic theory, Maxwell's distribution, rms speed and gas pressure, gas laws, equation of state, specific heat, thermal conductivity. Crystal structures: symmetry, Bravais Lattice. Radial distribution functions. X-ray diffraction. Miller indices. Cohesion of ionic crystals, Madelung's constant. Surface tension and surface energy of liquids. Application to convex surfaces, capillarity and suction. Viscosity: Poiseuille's formula, Stoke's method. Laminar flow and Bernoulli's equation. Elastic properties of solids. Static flow properties of fluids. Weekly laboratory sessions are required for this course. *Prerequisite: A minimum grade of C- in PHYS 165.*

PHYS 311 Mathematical Physics I 3 Credits

Infinite series, series expansion (power series), methods of integration, Linear algebra, and vector spaces. Ordinary differential equations. Closed forms and series solutions by integral transform. Line surface and volume integrals, Gradient, Divergence, and Curl operators. Laurent expansion.

Introduction to group theory and tensor analysis. *Pre-requisite: A minimum grade of C- in MATH 127 and MATH 227.*

PHYS 313 Wave Theory 3 Credits

Periodic motion and their superposition. Force and Energy. Complex variables representation of oscillations. Free and forced vibrations. Fourier analysis of periodic functions. Coupled oscillators and normal modes: two masses and three springs, identical springs and equal masses, two weakly coupled oscillators, double pendulum, and three coupled pendulums. Vibrating string. Transverse and longitudinal traveling waves. Diffraction of light and water waves. Reflection of mechanical (shear) waves at a discontinuity. *Pre-requisite: A minimum grade of C- in PHYS 216.*

PHYS 315 Atomic Physics 3 Credits

Review of quantum ideas and Bohr's theory of the atom. Sommerfeld's relativistic model of the atom. Vector model of the atom. Coupling schemes. Normal and anomalous Zeeman effects. Lande g-factor. One-electron spectra. Two-electron spectra. X-ray spectral. *Prerequisite: A minimum grade of C- in PHYS 300.*

PHYS 317 Thermal Physics II 3 Credits

Review of the second law of thermodynamics. Entropy. Thermodynamic potentials: Gibbs and Helmholtz free energies, Maxwell's relations and their applications, phase equilibria, phase transition. Cryogenics. Third law of thermodynamics: Kinetic theory of Gases: Mean kinetic energy, pressure, temperature, and principle of equipartition of energy. Ideal and non-ideal gases: Kinetic theory of gases, Maxwell distribution, Equation of state. Statistical interpretation of entropy: Maxwell - Boltzmann, Bose-Einstein and Fermi-Dirac statistics Ensemble theory, Energy states. Application in calculating macroscopic properties of systems. Introduction of Quantum statistics. *Pre-requisite: A minimum grade of C- in PHYS 165.*

PHYS 322 Computational Physics 2 Credits

The course gives a brief introduction to C and C++; structure of a program; compiling and linking Data types and simple I/O. Operators and loops. Conditional logic and mathematical functions. Flow control. Arrays and strings. Functions. Other data types. File input and output. Algorithms. Dealing with errors. Graphics.

PHYS 324 Statistical Mechanics 3 Credits

The course covers Independence system and weak interaction; Thermal equilibrium; Chemical potential and the grand potential; Degrees of freedom in phase space; The fundamental postulate; Density of states and density matrix; Configuration and complexion LaGrange multipliers; Symmetric and antisymmetric; Fermi-Dirac, and Bose-Einstein statistics; Ensemble theory; Partition functions of state; Micro canonical; Canonical and grand canonical ensembles; Applications of the distribution laws to the perfect classification and the perfect quintals; Crystalline solid; Laser masers; Energy states. *Pre-requisite: A minimum grade of C- in PHYS 225 and PHYS 255.*

PHYS 325 Physics and Technology 3 Credits

The course is intended to introduce physics students to modern technology in physics, technology in data analysis and presentation, Introduction to programming languages (Python), Numerical simulations in physics, Data analysis with software tools (MATLAB), Introduction to sensors and data acquisition systems, Data collection and real-time monitoring,

Data processing using software tools, Basics of CAD software (AutoCAD, SolidWorks, ...), Design and 3D print simple mechanical components, Integration of 3D printing in physics experiments, Creating technical reports and presentations.

PHYS 330 Electrical & Electromagnetic Methods 3 Credits

Electrical resistivity methods, spontaneous (self) potential methods, induced polarization, and interpretation of electrical anomalies. Introduction to electromagnetic methods, electromagnetic systems, applications of electromagnetic methods, ground penetrating radar, depth penetration and detection of electromagnetic fields, time-domain surveying, tilt-angle methods, non-contacting conductivity measurement, airborne electromagnetic surveying, telluric and magnetotelluric methods. *Pre-requisite: A minimum of C+ in PHYS 140.*

PHYS 331 Surveying 2 Credits

Surveying: definitions; branches of surveying. Historical background: introduction to traditional methods of surveying; chain surveying, plane table surveying. Leveling: Definitions; basic concepts. Principles of ordinary surveying. Equipment: instrument adjustments; temporary and permanent. Methods of leveling; differential, reciprocal, inverse. Field procedures; booking, reductions, and checks. Computations: Methods, accuracy, error adjustment. Sources of errors. Applications of leveling: Contouring, setting out levels, profiles; longitudinal sections, cross-sections, and deformation monitoring. Precise leveling: Field procedures; Computations; Accuracy. Altimetry: instruments; Field procedures; reductions and adjustment; Errors and accuracy. Angular measurements: Units, types. Instruments; magnetic compass, Theodolite. Instrument. Sources of errors. Plane rectangular coordinate system. Traversing: Basic principle, types of traverses.

PHYS 333 Environmental Geophysics 2 Credits

Soil porosity and electrical properties of soils, rocks, and groundwater. Environmental magnetism and radiometrics. Management of agricultural land in saline environments: defining the problem in geophysical terms. Mapping salt storage with ground-based and down hole EM and resistivity systems. Airborne electromagnetic methods for environmental investigations. Data integration in GIS and Data mining. Mapping groundwater contamination. Environmental impact of geophysical surveys. Archaeology and Geophysics. Role of geophysics in Global Energy Demand.

PHYS 335 Physical Optics 3 Credits

Theory of interference. Fresnel and Fraunhofer diffraction. Zone plate. Diffraction at straight edge and at a number of parallel slits. Resolving power of optical instruments. Fresnel's explanation of optical activity. Polarimeters. Polarization; Jones Matrix notation, polarization of matter, Absorption Optics: reflection and transmission angles and co-efficients, Brewster Angle, principle of ray tracing, illustrations; Diffraction: General Kirchoff - Sommerfeld theory, Fresnel and Fraunhofer approximations, applications (slit and edge diffraction patterns); Lasers: Einstein's constants, Spontaneous and stimulated emissions, laser principle, properties of laser light. Laboratory sessions are required for this course. *Prerequisite: A minimum grade of C- in PHYS 170.*

PHYS 341 Remote Sensing & GIS 3 Credits

Definition of remote sensing and its components. The electromagnetic spectrum, atmospheric scattering, absorption atmospheric windows, spectral signature concepts, and

typical spectral reflective characteristics of water, vegetation, and soil. Types of platforms and sensors: – orbit types, Sun-synchronous and Geosynchronous – Passive and Active sensors Meteorological satellites, Airborne and space-borne TIR and microwave sensors. standard remote sensing software Basic elements of image interpretation, visual interpretation keys, Digital Image Processing, Pre-processing, image enhancement techniques, multispectral image classification (Supervised and unsupervised). Introduction of GIS: Maps, Definitions, Map projections: types of map projections, map analysis GIS definition, basic components of GIS, standard GIS software. Data types: Spatial and non-spatial (attribute) data, measurement scales, Data Base Management Systems (DBMS). Data entry, storage, and analysis: Data models vector and raster data, data compression, data input by digitization and scanning, attribute data analysis, and integrated data analysis. Applications of GIS.

PHYS 342 Seismic Methods 3 Credits

Overview of Geophysical Techniques: gravity method, magnetic method, Seismic Fundamentals: important terms, seismic waves, seismic velocities, travel times, seismic Data Acquisition, energy sources, recording instruments, Seismic Data Processing: Gain, Pre-stack analysis, mute, filter tests, static correction, velocity analysis, stacking, migration, Seismic Interpretation, 4-D (Time Lapse 3-D) Seismic Surveys. *Pre-requisite: A minimum of C+ in PHYS 233.*

PHYS 344 Earth Systems & Atmospheric Physics 2 Credits

Introduction. Structure of the Earth systems: atmosphere, hydrosphere, lithosphere (geosphere), biosphere, heliosphere. Statistical analysis of environmental field observations. Biogeochemical cycles: aerosol physics and measurements, forest atmosphere interactions, atmosphere biosphere gas. Exchange in ecosystems: visibility acid rain, aerosol-cloud interactions, ecosystem carbon exchange and interactions. The energy balance: application of the first law of thermodynamics, mass flow and conservation of matter. Other conversion laws. The lower and upper atmosphere: moist air, layer boundary, ozone layer, energy transfer, and radiation. Air chemistry. Atmospheric modeling. Greenhouse gas emissions. Climate change. Climate modeling. Ecosystem modeling and analysis. Water and energy in ecosystems. Satellite remote sensing of aerosol. Physical and optical properties of atmospheres. Cloud microphysics. Weather disturbances in selected areas: equatorial regions, storms, hurricanes. *Pre-requisite: A minimum of C+ in PHYS 165.*

PHYS 345 Electronics 3 Credits

Introduction to semiconductor physics. Energy bands, electrons and holes. The P-N junction biasing. Semiconductor diode. Rectifiers. Junction transistors (characteristics and operations). Manufacture of grown junctions, fused junctions and point contact diode. Field effect transistors. MOSFET. Transistor amplifiers, types of amplifier circuits. Current and Voltage amplifiers. Feedback. Oscillators. Linear integrated circuits. Operational amplifiers and its applications. *Prerequisite: A minimum grade of C- in PHYS 232*

PHYS 346 Industrial Experience/Field Camp 2 Credits

I. Industrial Experience

This course exposes students to the current trends in geoscience applications in the industry. A log book of daily activities for the period, endorsed by the student's supervisor at the organization

must be submitted at the end. This is a three-month (12 weeks) course that must be done during the junior year (Year 3) in the department. Industrial attachment is an important component of your training to link theory and practice learned with the real market situation. It is compulsory for all students as described in the UEAB bulletin and will be supervised by the Industrial attachment supervisor in conjunction with your industry supervisors.

II. Field Camp

If an industrial placement is not secured in time, a student can apply to join a team carrying out a geophysics survey in the field. The field experience should not be less than 2 weeks. At least 4 methods applied in geophysical surveys must form part of the field experience. A student taken under this field program must participate in data processing and analysis. A comprehensive report must be submitted for grading. A PowerPoint presentation on the same shall form part of the graded items.

PHYS 348 Gravity and Magnetic Methods 3 Credits

Gravity: Introduction to Gravity Method, Fundamentals of Gravity, Gravity Measurements and Instrumentation, Regional and Residual Gravity Anomalies, Gravity Data Reduction and Processing, Interpretation of Gravity Anomalies, Applications in Mineral Exploration, Applications in Hydrocarbon Exploration, Engineering Geology and Geotechnical Applications magnetics: Introduction to Magnetic Method, Fundamentals of Magnetism, Magnetic Measurements and Instrumentation, Regional, and Residual Magnetic Anomalies, Magnetic Data Reduction and Processing, Interpretation of Magnetic Anomalies, Applications of magnetic methods, Advanced Topics and Emerging Trends. *Pre-requisite: A minimum of C+ in PHYS 242.*

PHYS 349 Geophysical Signal Processing 3 Credit

Introduction, Definition of signal and noise, signal classes such as continuous, piecewise continuous, absolute integrable, singularity, unit impulse, unit step etc, Fourier series, and transform. Time and frequency domain. Fourier transform and its properties. Rectangular, exponential functions, singularity functions, and periodic functions. Discrete-time signals, correlation and convolution functions, impulse response and transfer function spectrum of observational data: Discrete Fourier Transform (DFT), FFT and Z-Transforms. Band limited signals: properties, sampling Theorem, Nyquist frequency, aliasing. Importance of windowing, types of windows, power spectrum, use of various windows in power spectrum computation. Digital filtering: Design of digital filters, amplitude and phase response of filters. Low pass, band pass, high pass, optimum filters, Butterworth, Recursive and non-recursive filters. Deconvolution. *Pre-requisite: A minimum of C+ in PHYS 311.*

PHYS 350 Applied Physics in Public Health 2 Credits

This course is designed to enable students acquire knowledge and skills in physics applicable in public health and environmental health practice. topics to be covered include Mechanics and properties of matter, Work and Energy, Mechanical physics, Sound and light, Electricity and magnetism, Modern nuclear physics, Radioisotopes and Medical Uses. There will be Two lecture hours per week and two tutorial hours per week. *Pre-requisite: PHEH 110, PHEH 140, PHEH 226, PHEH 224, PHEH 229, PHEH 263, PHEH 250, PHEH 361 and PHEH 362.*

PHYS 410 Nuclear Physics 3 Credit

Atomic nucleus, systematics of stable nuclei. Natural and artificial radioactivity. Nuclear detectors. Nuclear models

(shell and liquid-drop). Mass and isotopic abundance of nuclei. Nuclear stability. Nuclear forces. Neutron sources, slow down chain-reacting pile and their interaction. Nuclear fission and power reactors. Nuclear fusion. Radiation monitoring and safety measures. Applications of nuclear Physics. Isotopes and applications in medicine, agriculture and industry. *Prerequisite: A minimum grade of C- in PHYS 315.*

PHYS 411 AC Circuit Theory 3 Credits

Generation of AC Circuits: complex motion, phasors, and Argand diagrams. Series and parallel circuits. Resonance. Q-factor. Coupled circuits. A.C. Bridges. Impedance Matching. Transformer. Filters. Transmission lines. Rectification. Magnetic circuits and magnetic measurements. Sine waves: mean, peak, and root mean square (r.m.s.) values. Impedance and admittance, phasors. Single and three-phase circuits. Power and power factor. Sinusoidal steady state analysis: frequency response, resonance and selectivity in circuits, time domain analysis, resistance-capacitance (RC), resistance-inductance (RL), and resistance inductance capacitance (RLC) circuits. Step response, rise time, impulse response. Nodal and mesh analysis. Star delta transformation, Thevenin's and Norton's theorems. Maximum power transfer, reciprocity theorems, duality, and two-port network functions. Compensation theorem. *Pre-requisite: A minimum grade of C-in PHYS 231 and PHYS 232.*

PHYS 413 Thermal Physics II 3 Credits

Integral transformations: Fourier series, Fourier integral theorems, Fourier and Laplace transformations. Sturm Liouville Problem. Special functions: Legendre, Laguerre, Hermite functions and polynomials; Bessel functions, spherical harmonic; Gamma, beta, and error functions. Function space and expansion in orthogonal functions. Analytic functions-examples. Power series and Laurent expansion. Cauchy's theorem and the residue theorem. Contour integration with applications. Partial differential equations: boundary conditions, separation of variables, Green functions and integral transforms variational method, operator technique, Application to problems in Physics; coupled oscillators, heat flow, wave equation, Schrodinger's equation. Poisson and Laplace equation. *Pre-requisite: A minimum grade of C-in PHYS 311*

PHYS 415 Solid State Physics 3 Credits

Review of atomic bonding, crystallinity and forms of solids. Brillouin zones. Lattice dynamics: Elastic waves and phonons, Phonon statistics, Vibrational modes and spectrum. Specific heat (lattice and electronic). Band structures. Electron-phonon interaction. Impurity states and nature of lattice defects. Characteristic properties of dielectrics, metals, semiconductors and magnetic solids. Cooperative phenomena. Super conductivity. Mode of electronic transport in solids. Ferro -, para- and diamagnetic. Applications to solid state devices. Electro-optics and lasers. *Prerequisite: A minimum grade of C- in PHYS 300*

PHYS 417 Research Methods in Physics 2 Credits

Introduction to research; basic research methods, meaning of research, purpose of research, types of research, identification of a research problem, abstract, statement of research problem, Literature review; Field research, desk research, data collection and tabulation, tools of statistical analysis Sampling data; rationale for sampling, applicability of sampling, types of sampling, limitations of sampling Data collection and techniques; introduction to data collection techniques, data collection techniques, critique of data collection techniques, Source of data, introduction to sources of data, primary sources,

secondary sources, critique of the primary and secondary sources of data. Data analysis; data handling, data processing, data analysis, reporting, and use of research results. Presenting results: Introduction, role of the Research Report, Research Report Criteria, writing Criteria, Report Format, Presentation of Statistics, Oral Presentations.

PHYS 419 Electrodynamics 3 Credits

Maxwell's equations and their applications: Vector and Scalar potentials, Gauge transformations and Lorentz condition, d'Alembertian. EM energy and radiation: Poynting's vector, dipole oscillations, dipole radiation and its power, radiation from an accelerated charge. Propagation of EM waves in non-conducting and conducting media, skin depth. Polarization: Polarization by reflection and refraction, Fresnel's equations, Propagation of em waves in an isotropic medium, explanation of double refraction, optical activity. The transmission line, transmission of microwaves, TE and TM boundary conditions for metallic and dielectric materials, wave-guides: hollow-cylindrical, hollow-rectangular wave-guides: boundary conditions, special conditions for wave-guide transmission. *Pre-requisite: A minimum of C- in PHYS 231 and PHYS 232.*

PHYS 420 Microprocessor Applications 2 Credits

Digital circuit design, digital processors, registers, counters. Decoders, display. Analog to digital conversion. Digital to analog conversion. Transducers. Microcomputer architecture and operation. Storage and memory. Assembly and machine-level programming. Program structure; program modularization, relocation, re-entrant and position independent code, sub-routines, parameter passing. Interfacing: serial and parallel interfacing devices, poling techniques. *Pre-requisite: A minimum of C- in PHYS 345.*

PHYS 421 Electronic Theory I 3 Credit

Magnetic fields in matter: Magnetization, magnetic intensity, magnets. Electromagnetic waves. Maxwell's equations. Plane waves in isotropic dielectrics and conducting media. Reflection and refraction of plane waves at dielectric and metallic boundaries. Polarization. Wave guides. EM radiation: scattering and dispersion. Electromagnetism. *Prerequisite: A minimum grade of C- in PHYS 232.*

PHYS 422 Analogue & Digital Electronics 2 Credits

Number systems: binary hexadecimal and decimal, Codes. Digital logic gates: AND, OR, NOT, NOR, and NAND gates. Truth tables and Boolean functions. Applications. Implementation of Boolean expressions. Combinational logic circuits; analysis, design and applications, Simplification using Boolean algebra theorems and Karnaugh maps. Logic level interpretation-positive, negative, mixed; Interpretation; Practical design and implementation of combinational circuits using selected standard integrated circuits. Elements of sequential circuits such as R-S, J-K, D, and T flip flops and their electronic realization. Counters and registers. Practical design and implementation of sequential circuits using selected standard integrated circuits. *Pre-requisite: A minimum grade of C- in PHYS 345.*

PHYS 424 Electromagnetic Theory 3 Credits

Review of electrostatic configuration, motion of charges in Electric and Magnetic fields, Dielectrics, polarization, and Electric Dipoles. Clausius - Mosotti relations, Magnetic dipole and moment. Ferromagnetic current and curve, hysteresis. Transformer, magnetic vector potential. Bio-Savarts Law. Energetics: Electric and magnetic field energies.

Electromagnetic energy flow and conservation. Solving Maxwell Equations in free space. Propagation of Electromagnetic waves in free space and matter. *Pre-requisite: A minimum grade of C- in PHYS 231 and PHYS 232.*

PHYS 426 Modern Physics 2 Credits

Special relativity: Einstein Postulates, the problem of simultaneity, Minkowski flat space-time, Relativistic; momentum, energy and force, Mass energy relation. Black body radiation: light spectra, failure of classical theory, properties of light photon. Photoelectric- effect. Atom: Bohr Model, Quantization of energy and momentum, Compton effect; X-rays, de Broglie waves, Uncertainty Principle, Nuclear structure and radioactivity. Introduction to atomic and particle physics: a hydrogen atom, Pauli Exclusion Principle, atomic structure atomic emission and absorption spectra, bosons and fermions, quarks, superstrings.

PHYS 428 Research Project 2 Credits

This involves a research project done during the student's senior year representing his/her major area of interest and ability within the thematic areas of physics. The work is to be supervised by an assigned departmental faculty (with a relevant area of interest in physics). The research project should reflect the student's level of competence; incorporate a variety of skills and originality and must have measurable objectives anchored on primary or secondary data. *Pre-requisite: A minimum of C+ in PHYS 417.*

PHYS 429 Laser & Maser 2 Credits

Introduction: how light is generated, outline and need for the laser, the scope of the course. Interaction of EM Radiation with Matter: two-level system, spectral line-shapes, finite lifetime, Doppler effects, absorption and decay processes, spontaneous and stimulated emission. Amplification Criteria: amplification conditions, Lorentzian line-shapes, Gaussian line-shapes, simple cavity model. Fabry-Perot cavity: optics of Fabry-Perot cavity, laser use of Fabry-Perot, laser gain conditions, laser modes, homogeneous broadening, inhomogeneous broadening, control of modes, examples of lasers. Four-level laser: four-level rate equations, four-level gain profile, simple homogeneous laser, output behavior and power, optimal output conditions, inhomogeneous laser. Laser Modes and Mode Locking: properties of a single mode, multi-mode laser, two-mode system, mode locking in multi-mode laser, mode locking of real laser, active mode locking, passive mode locking, the Kerr lens. Gas Lasers: operation and characteristics of the He-Ne laser and argon ion laser. Summary of other gas lasers. Solid State Lasers: laser media and the role of phonons; titanium sapphire laser; neodymium YAG and glass lasers. Q-switching. Cavity Stability: laser stability conditions and practical laser cavities. Gaussian Beams: scalar potentials, plane wave solution in an optical cavity, Gaussian solution, divergence angle and beam parameters, beam waist, and Rayleigh region, Gaussian beams in cavities, higher order modes, and basic optics of Gaussian beams. Masers: generation, difference with lasers, applications. *Pre-requisite: A minimum of C- in PHYS 165, PHYS 255 and PHYS 335.*

PHYS 430 Ground Water Geophysics 2 Credits

Hydrologic cycle, surface and subsurface distribution of water, the origin of groundwater, springs, precipitation, evaporation, evapotranspiration, seepage, infiltration and runoff, and methods of measurement. Hydrological properties of water-bearing materials: porosity, void ratio, permeability, transmissivity, storativity, specific yield, specific retention, diffusivity, field and laboratory method for determining

permeability, movement of groundwater and aquifer performance tests, Darcy's Law and its range of validity, theory of groundwater flow under steady and unsteady conditions, determination of transmissivity and storativity by discharge methods. Mode of occurrence of groundwater, classification of rocks concerning their water-bearing characteristics, aquifers, Aquiclude, aquitards, classification of aquifers, water balance studies, hydrograph analysis, conjunctive and consumptive use of groundwater. Hydro-geochemistry: Physical and Chemical characteristics of groundwater, classification of groundwater regarding domestic, irrigation, and industrial use, and pollution of groundwater.

PHYS 431 Environmental and Renewable Energy Physics 3 Credits

The concept of energy. Global energy supply and consumption patterns. Energy conservation practices. World energy sources: fossil fuels, nuclear, solar, geothermal, wind, water. Ocean thermal gradient. Tides. Biomass and wood fuel. The global environment. Physics of atmospheric processes (eg. Solar terrestrial radiation). Transport processes in atmosphere. Water, air, energy balance and hydrological cycle. Water vapour. Heat exchange. Heat conduction in soils, pollution problems. Applications of physics to medical, biological and environmental. A field visit in industries will be required of every student. *Prerequisite: A minimum grade of C- in PHYS 335.*

PHYS 433 Petroleum Geophysics 2 Credits

Introduction: what is petroleum? Porosity and permeability in sedimentary rocks. Burial Histories: Burial and diagenesis, Reservoir environment, Elasticity of porous media, Velocity of sandstone, Velocity of poorly consolidated rock, Velocity of carbonate, Gassmann equation, Source Rocks: Organic geochemistry of oil and gas, optimal hydrocarbon indicator, Hydrocarbon fluids properties. Origin, migration, and accumulation of petroleum. Petroleum exploration: Correlation, mapping. *Pre-requisite: A minimum of C+ in PHYS 233.*

PHYS 442 Reservoir Geophysics 3 Credits

Basic petrophysical properties of reservoir rocks including porosity, permeability, fluid saturation, electrical conductivity, capillary pressure, and relative permeability; classification of oil and natural gas reservoirs; introduction to reserve estimation principles. Laboratory measurement of the reservoir rock characteristics mentioned above. Derivation of the general material balance equation. Application of the general material balance equation for determining initial oil in place and gas cap size and water influx constant under different drive mechanisms. Application of the general material balance equation for determining the initial gas in place for conventional gas reservoir Production Logs: Thermal decay time log, Temperature log, radioactive tracers. Injection wells. *Pre-requisite: A minimum of C+ in PHYS 233 & PHYS 165.*

PHYS 444 Geo-Statistics 3 Credits

Probability Theory Review, Uncertainty, Spatial Analysis, Variogram, Experimental Variogram, Covariogram, Variogram Modeling, Geostatistical Estimation (Kriging: ordinary kriging, simple kriging, universal kriging, co-kriging, block kriging), Geostatistical Simulation (Unconditional & Conditional), Cross-validation. *Prerequisite: A minimum of C+ in COSC 150.*

COSC 150 Applied Statistics in IT 3 Credits

Descriptive Statistics: Definition of data, statistic, elements and variables. Sources and methods of data collection.

Representation of data; bar graphs, pie charts, frequency distributions, relative frequency distributions, histograms, cumulative frequency distribution curves (ogive), stem and leaf display. Measures of central tendency; mode, median, mean including geometric and trimmed mean. Measures of location; quartiles, deciles, percentiles. Measures of dispersion; range, inter-quartile range, standard deviation, coefficient of variation. Skewness and Kurtosis. Introduction to probability; experiments, sample space, event, probability of event, conditional probability, independence, addition and multiplication rules. Bayes rule. Probability distributions; Bernoulli, Binomial, Poisson, hyper geometric, normal. Approximation of Binomial using Poisson and normal. Expected value and variance. Linear regression and correlation; Scatter plots, Pearson's product and Spearman's rank correlation coefficient. Least square regression line. *Prerequisite: Departmental consent*

STAT 200 Fundamentals of Biostatistics 3 Credits

This course is designed to provide basic concepts widely used in biological and health sciences. The topics to be covered include: definitions of special biological and medical terms, data collection, organization, management and presentation, elements of probability and probability distributions, discrete and continuous distributions, measures of central tendency and variability, sampling, estimation and hypothesis testing, applications of the normal distribution, confidence interval sample size determination, testing sample means, comparison of means (two samples), the chi-square distribution and tests, simple linear regression and correlation, multiple regression, analysis of variance, use of nonparametric statistical test procedures. *Prerequisite: COSC 111 or Departmental consent*

STAT 204 Non-Parametric Statistics 3 Credits

Review of the simple regression and correlation theory, multiple and partial correlation, multiple regression, significance of the correlation ratios, ANOVA (one, two and three way classifications), post hoc multiple comparison tests (Tukey, Newman Keuls, Tukey/Kramer and Scheffe's methods), chi-square test and non parametric tests (Sign, Wilcoxon's Matched Pairs Signed Ranks, Wilcoxon Rank Sum, Median, Mann Whitney U, Wald Wolfowitz Runs, Kruskal Wallis H, Friedman Fr, Spearman's rho, McNemar and Cochran Q tests). *Prerequisite: A minimum grade of C- in COSC 150.*

STAT 205 Probability Theory and Its Applications 3 Credits

Random variables, distribution functions, independence, special parametric families of univariate distributions discrete and continuous (Bernoulli, hypergeometric, binomial, exponential) distributions joint and conditional distributions, distribution of functions of random variables, sampling and sampling distributions, parametric point estimation and interval estimation, test of hypotheses, and linear models. *Prerequisite: A minimum grade of C- in MATH 150.*

STAT 207 Regression Analysis 3 Credits

Simple and multiple linear regressions, partial correlation, residual analysis, stepwise model building, multicollinearity and diagnostic methods, indicator variables, hypothesis testing, nonlinear and logistic regression. Interpretation of computer output will be emphasized. *Prerequisite: A minimum grade of C- in STAT 204 or MATH 150.*

STAT 270 Introduction to Econometrics 3 Credits

An introductory survey of econometrics and its applications in

business and economics. The topics include probability sampling, hypothesis testing, regression and correlation techniques, the simultaneous equation models and problems of econometrics. *Prerequisite: A minimum grade of C- in STAT 204.*

STAT 300 Multivariate Probability Distributions 3 Credits

Random variables, distribution functions, independence, special parametric families of univariate distributions (discrete and continuous (Bernoulli, hypergeometric, binomial, exponential) distributions, joint and conditional distributions, distribution of functions of random variables, sampling and sampling distributions, parametric point estimation and interval estimation, test of hypotheses, and linear models. *Prerequisite: A minimum grade of C- in MATH 150*

STAT 305 Theory of Estimation 3 Credits

Introduction to the fundamentals of estimation theory, with applications to stochastic and adaptive signal processing. Topics include deterministic and stochastic least-squares estimation, the innovation process, spectral factorization and Wiener filtering, state-space structure and Kalman filters; array and fast array algorithms; LMS and RLS adaptive filters; Bayesian filtering; Markov chain Monte Carlo methods; particle filters; signal detection; parameter estimation. *Prerequisite: A minimum grade of C- in MATH 150, or STAT 204*

STAT 308 Concepts and Practice of Operations Research 3 Credits

Decision Analysis, Fundamentals of Discrete Probability, Continuous Probability Distributions and Their Applications, Statistical Sampling, Simulation Modeling: Concepts and Practice, Regression Models: Concepts and Practice, Linear Optimization, Nonlinear Optimization, Discrete Optimization. A field visit to industries is required. *Prerequisite: A minimum grade of C in MATH 150 or STAT 300*

STAT 315 Test of Hypothesis 3 Credits

This course focuses on the process of statistical inference, presenting confidence intervals and hypothesis testing for one and two populations, chi-square procedures, linear and nonlinear regression, and one-way analysis of variance. A group project is required. *Prerequisite: A minimum grade of C- in MATH 150 or STAT 204 or STAT 207*

STAT 330 Sample Surveys 3 Credits

Practical problems of surveys. Design of optimal surveys. Questionnaire design. Practical problems of sampling. Design of optimal sampling procedures. Adapting standard statistical techniques to specialized sampling design. *Prerequisite: A minimum grade of C- in STAT 204*

STAT 336 Statistical Quality Control 3 Credits

An introduction to the basic philosophy of quality control and statistical tools used in quality control and quality assurance. Tools to include control charts, acceptance sampling, response surface methodology, Pareto charts, histograms, stem-and-leaf plots and dot plots. Applications of statistical process controls. There will be industrial case studies and tours of local industries (when available). *Prerequisite: A minimum grade of C- in STAT 204*

STAT 400 Stochastic Processes 3 Credits

Discrete and continuous random variables and their distributions, conditional distributions and conditional

expectation, generating functions and their applications, convergence of random variables; introduction to Brownian motion, homogeneous and nonhomogeneous Poisson processes and martingales; Fundamental notions of Markov chains and processes, generating functions, recurrence, limit theorems, random walks, Poisson processes, birth and death processes, applications. *Prerequisite: A minimum grade of C- in MATH 150 or STAT 300*

STAT 410 Design and Analysis Experiments 3 Credits

A study of the various experimental designs in sciences. Topics include the randomized block design, incomplete block designs, analysis of Latin squares, and 2k-factorial experiments. Analysis of variance applied to experimental designs; analysis of covariance. Interpretation of computer output will be emphasized. *Prerequisite: A minimum grade of C- in STAT 204 or STAT 300*

STAT 415 Multivariate Methods 3 Credits

Statistical analysis of multivariate data. Topics will include preparation of data for analysis, selection of techniques appropriate to research questions, measures of association for continuous and discrete variables, Hotelling's T, multivariate analysis of variance, multivariate analysis of covariance, cluster analysis, discriminant analysis, multidimensional scaling, principal component and factor analysis. This is a computer-oriented course with emphasis on application. *Prerequisite: A minimum grade of C- in STAT 300*

STAT 425 Measure and Probability 3 Credits

Outer measures and Carathéodory extension, Lebesgue measure, Measurable function, Integration, Absolute continuous function on $\mathbb{R}$, fundamental theorem of integral calculus for Lebesgue Integral, Measure on product spaces and Fubini's theorem, Complex measures, Radon-Nikodym theorem, Independence of events, Borel-Cantelli lemma, Random variables, distribution functions, moment generating functions, Conditional expectation, independence of random variables and Kolmogorov's zero-one law, Joint distributions, Convergence of random variables, law of large numbers, Characteristic function, central limit theorem. *Prerequisite: A minimum grade of C in MATH 415 or STAT 400*

STAT 430 Statistical Data Analysis and Design 3 Credits

Application of program packages (e.g. SPSS or SAS) to the solution of one-, two- and k-sample parametric and nonparametric statistical problems. Basic concepts in data preparation, modification, analysis and interpretation of results. A basic computer knowledge is required. (2-hour lecture; 3-hour laboratory) *Prerequisite: A minimum grade of C-in STAT 204*

STAT 435 Applied Time Series Analysis 3 Credits

The course is an introduction to univariate and multivariate time series models. It starts by introducing basic concepts and progresses to more complicated models. Regression and exponential smoothing methods for forecasting non-seasonal and seasonal time series, stochastic processes, moving average models, Autoregressive integrated moving average (ARIMA) modeling and forecasting of univariate time series. Estimation of spectral density functions, white noise tests, and tests for periodicities. *Prerequisite: A minimum grade of C- in STAT 300*

Student Life and Services

The University of Eastern Africa, Baraton, seeks to meet the academic, spiritual, social, and cultural needs of its students. Each student has the opportunity to develop a well-rounded personality through participation in the various campus activities.

STUDENT HOUSING

All students who do not live either with their parents or spouses are expected to live in residence halls on campus. Exceptions may be granted by the University Administration upon request. Residence halls have the basic conveniences but students are expected to provide their own mattresses and bedding. The University has limited off-campus housing for married students. Applications forms for these are available in the DVCSAS office.

HALLS OF RESIDENCE

Each student in the Halls of Residence is issued with a key to the room at the time of admission and is to return the key to the Residence Deans when moving out. The cash charge for a lost key is KShs. 1,000.00. The cash charge for unreturned key is Kshs. 500.00. Whenever a student moves out of the room, the room will be checked for reasonable cleanliness and normal wear. Where necessary, charges for extra cleaning and/or repairs will be made to the student's account. Day students are not permitted to use the facilities in the residence halls. Any day student using these facilities without authorization will face disciplinary action.

FOOD SERVICES

Resident students are expected to eat their meals in the University cafeteria. A vegetarian diet is provided in the boarding plan which allows for the normal three meals per day while the semester is in session. Those remaining during vacation periods are charged a daily boarding Fee. For the ones on the recommended medical diets, a selection may be made from what is available at the cafeteria. The cost of three meals a day is included in the boarding fees. Day students are not allowed to eat in the cafeteria unless they have made arrangements with the Food Services in consultation with the DVC Student Affairs and Services and the Students Finance Office. **NO STUDENT OR ANY OTHER PERSON WILL BE ALLOWED TO PREPARE OR SELL FOOD IN THE HALLS OF RESIDENCE.**

HEALTH SERVICES

The University operates a hospital which provides basic health care to students. Students entering the University for the first time will be required to take medical examination by the doctor chosen by the University. The results of the medical examination can be shared with the DVCSAS office, if need be. Special cases should be reported immediately to DVCSAS office. The cost of this medical examination will be charged to the student's account.

STUDENT HANDBOOK

Each student is provided with a Student Handbook which is designed to inform the students concerning rules and regulations governing them during their stay in this University. It is imperative that every student gets a copy and be acquainted with the information that is found therein.

LIBRARY

The library aims to support the curriculum and philosophy of the University, providing relevant information in a variety of

formats. The Library Handbook provides more information.

Working Hours

Sunday - Thursday	7:00 am - 5:30 pm 7:00 pm - 10:30 pm
Friday	7:00 am - 2:00 pm
Public Holidays	2:00 pm - 10:30 pm
Saturday night	7:30 pm - 10:30 pm

STUDENT WORK STUDY PROGRAM

The University operates a number of auxiliary and vocational services where students may work part-time to earn a portion of their school expenses. Students utilize these opportunities to engage in productive and useful labor which helps them to develop character traits of industry, dependability and initiative. In the process, students may also acquire valuable vocational skills.

RELIGIOUS ACTIVITIES

A fundamental objective of the University is to develop the spiritual faculties of the student. Daily worship, weekend services, as well as weekly assemblies are important parts of the University programs in pursuit of this objective. All students are required to attend these convocations. There are other religious activities which offer students additional opportunities for Christian development and service. Among these are group prayers, off-campus witnessing, and activities of the Adventist Youth Society.

RECREATIONAL FACILITIES

Facilities for volleyball, basketball, soccer, rugby, hockey, lawn tennis and table tennis are available on campus. There is also ample space on the campus for exercise, jogging, or walking. Since physical fitness aids in mental excellence, each student is encouraged to adopt a regular program of recreation and exercise.

EXTRA-CURRICULAR ACTIVITIES AND ORGANIZATIONS

Some of the non-curricular activities available to the student are: departmental academic clubs, special interest and hobby clubs. Each of these has a faculty sponsor and a student leader. Such clubs and groups afford additional opportunity to develop leadership, spiritual vigor, physical health, mental acuity, and social aptness.

STANDARD OF CONDUCT

Detailed information about standards and expected conduct are found in the Student Handbook. Every student should become acquainted with its contents and be guided by the principles found therein. In short, students are expected to follow high standards of moral and Christian conduct, and to refrain from immoral and degrading acts or behavior such as: public display of affection (PDA), indecent conduct, profane language, the use of alcohol, tobacco or other drugs, reading pernicious literature, gambling, or attending places of amusement not approved by the University. If a Student's behavior proves detrimental to the growth and development of other students or the University, he/she will be asked to withdraw temporarily or permanently from the institution.

UNIVERSITY APPOINTMENTS

Attendance in student University appointments is part of the academic program of the university. University appointment meetings are provided for spiritual, academic and social benefit of the UEAB family. Each student shall be required to attend all University appointments. Exceptions to this must be sought from the DVS Student Affairs and Services.

OFFICIAL UNIVERSITY APPOINTMENTS:

1. Daily evening worships (Sunday, Tuesday, Thursday)
2. Separate residence meetings (Monday)
3. General Assembly (Tuesday morning)
4. Power Hour/Prayer meeting (Wednesday)
5. Friday vespers
6. Sabbath (Sabbath School, Lesson discussion class, Divine Service and Sundown worship)
7. Week of Spiritual Emphasis
8. Annual Camp meetings
9. All class/departmental related meetings
10. Any other meeting convened by the University

HANDLING OF ABSENCES FROM UNIVERSITY APPOINTMENTS

1. Appointments shall be recorded from the first weekend after registration commences and continue until the last weekend before the beginning of the final semester exams.
2. The allowable absences shall not exceed 10% of the total semester appointments.
3. All excusable absences shall be cleared at the Appointments Office.
4. Three incidences of tardiness shall constitute one absence.

LEAVE OF ABSENCE

When a student needs to leave the campus for any reason, proper arrangements must be made in the office of the DVC Student Affairs and Services. Leave of Absence Forms are available at the residence halls or on the University website. For detailed information about leave of absence consult the Student Handbook.

THE UNIVERSITY BOOKSTORE

Textbooks and wide range of stationery are available at the University bookstore. Any financial issues from the bookstore can be addressed to the Student Finance Officer.

MARRIAGES

As a general rule, marriages are not encouraged during the academic year. However, exceptions may be granted at special request.

VACATION PERIOD CHARGE

A room charge of Kshs. 150.00 per day and meal charge of Kshs. 150.00 per meal will be made to students remaining on campus during vacation periods.

UNREGISTERED STUDENTS

Unregistered students shall be treated as guests while residing in the halls of residence and using cafeteria services. A non-registered student will be charged Kshs. 150.00 per meal.

Financial Information

GENERAL FINANCIAL INFORMATION

REFUNDS

Students who withdraw from any or all classes and from the Boarding Section during the semester will receive the following refunds on the charges of tuition, room and meals: 85% refund during the first and second weeks of the semester, 75% refund during the third week of the semester, 65% refund during the fourth week of the semester, 55% refund during the fifth week of the semester, 45% refund during the sixth week of the semester, 35% refund during the seventh week of the semester, 25% refund during the eighth week of the semester.

No refund after the eighth week except in cases of serious illness, accident, or dismissal from school where the necessary Drop Procedure has been completed at the office of the Registrar. The amount of the refund in this case will be determined by the Administrative Board.

CASH WITHDRAWAL

Fees once paid will not be withdrawn for personal use.

TRANSCRIPTS OF CREDITS AND DEGREE CERTIFICATES

These are issued only when the student's account has been paid in full. The first transcript is issued free; each additional transcript request must be accompanied by KShs. 500.

STUDENT FINANCIAL AID

The student financial aid program at the University of Eastern

Africa, Baraton has been developed to help needy and worthy students registered at the University.

1. Virchel and Esther Wood Loan Fund

- a. This fund is specifically for Biology students.
- b. More details can be found in the same department.

2. Siphwe E. Muze Memorial Endowment Fund

- a. This scholarship was established to benefit students pursuing studies in Biological Sciences.
- b. Allocation is made by the Student Financial Aid Committee in consultation with the Dean of the School of Science and Technology and the Chairperson of the Department of Biological Sciences.
- c. To be considered, one should have been at the University for at least two semesters and have an overall GPA of not less than 3.0 in the Biological Science Major.
- d. This scholarship was established in memory of Mrs. Siphwe E. Muze, former lecturer in the Department of Biological Sciences. Its availability is contingent upon donations from well wishers.

3. Work Program

- a. The University provides assistance to a limited number of students through the work program. However, it should be noted that it is not possible for students to wholly rely on the work program to meet all their financial obligations to the University.
- b. Application for the work program should be made through the Student Labor Office.

4. Literature Evangelism Ministry

- a. Students can earn money towards their University fees by engaging in the Literature Ministry during the holidays. This can be done in a number of territories in the Eastern-Central Africa Division, and even outside of Africa, e.g. in Scandinavian countries

5. Bonus Program

- a. a. The Bonus Program has been established by the University to assist students who are members of the Seventh-day-Adventist Church. This program is subject to availability of funds and when available students are expected to work for specified number of hours as determined from time to time by the Student Financial Aid Committee.

- b. The amount they earn from work is usually supplemented by a bonus which enable the student to meet their tuition fees for the next semester. Students who are interested should see the DVC Student Affairs for further information.

FEE STRUCTURE AND FEE PAYMENT

For information about Fee payments and Fee Structure, visit our website; www.ueab.ac.ke. (For fee structures, go to Links and Downloads, then select Fee Structures to download a fee structure that apply to your area/ level of study).

The Universities Act (Cap. 210B)

CHARTER OF THE UNIVERSITY OF EASTERN AFRICA, BARATON

A Charter to provide for the establishment, control governance and administration of the University of Eastern Africa, Baraton; and for connected purposes.

MEMBERSHIP AND GOVERNANCE OF THE UNIVERSITY

The Members of the University shall be;

1. The Board of Trustees
2. The Chancellor
3. The Vice-Chancellor
4. The Members of the University Council
5. The Deputy Vice-Chancellor (DVC)-Academics
6. The Deputy Vice-Chancellor (DVC)-Finance and Admin.
7. The Deputy Vice-Chancellor (DVC)-Student Affairs and Services
8. The Registrar of Admissions and Records
9. The Associate Administrators
10. The University Chaplain
11. The Directors of Extension Campuses and Principals of Constituent Colleges
12. The Professors and Lecturers of the University
13. The Librarian
14. The Students
15. Such other members of staff of the University, the alumni, or any other body formally admitted into association with the University.

GOVERNANCE

The governance and control of the University shall rest in the following bodies:-

1. The Constituency
2. The Board of Trustees
3. The Chancellor
4. The University Council
5. The Administrative Board
6. The University Senate
7. The School Boards
8. The Departmental Boards
9. The University Committees
10. The Faculty and Staff Committees

The Constituency

The Constituency of the University shall have and exercise the following functions:

1. To appoint every five years the non-ex-officio members of the University Council.
2. To outline and enact the general policies controlling the University in harmony with the standards and policies of the Seventh-day Adventist church, and this Charter.
3. To receive reports on the operation and progress of the University from the Vice-Chancellor and to determine whether the purpose and objectives for which the University was established are being met.
4. To carry out any other business that shall be deemed necessary for the successful running of the University.

The Chancellor

1. The President of the East-Central Africa Division (ECD) of the Seventh-day Adventist Church shall be the Chancellor.
2. The Chancellor shall be appointed every five years by the Constituency represented by the Executive Committee of the East-Central Africa Division.
3. The Chancellor shall award certificates, diplomas and degrees.
4. In circumstances where he is unable to do so, the Vice-Chancellor will award the certificates, diplomas, and degrees upon the request of the Chancellor.

The Board of Trustees

The members of the Board of Trustees shall be appointed by the Constituency.

1. The Board of Trustees shall consist of the following members:
 - a. President of East Kenya Union Conference (Chair);
 - b. Education Director of East-Central Africa Division (Secretary)
 - c. Executive Secretary of West Kenya Union Conference;
 - d. Treasurer of East Kenya Union Conference;
 - e. Lay Representative (Academic);
 - f. Lay Representative (Corporate);
 - g. Lay Representative (Legal Advisor);
 - h. Lay Representative (Health Sciences);
 - i. University of Eastern Africa, Baraton, Vice-Chancellor (Ex-officio);
 - j. Chancellor (Ex-officio).
2. The Board of Trustees of the University shall have and exercise the following functions:
 - a. To meet at least twice in a year to transact university business;

- b. To appoint members of the University Council every five years;
- c. To process, consider recommendations of the University Council on appointment, transfer and dismissal of the University Vice-Chancellor, every five years and/or when a vacancy arises;
- d. To raise funds for the benefit of the University;
- e. To promote objects of the University;
- f. To outline and enact the general policies controlling the University in harmony with the standards and policies of the Seventh-day Adventist Church, and this Charter;
- g. To receive reports on the operation and progress of the University from the Vice-Chancellor; to carry out any other function that shall be deemed necessary for the successful running of the University.

The University Council

1. The University Council shall consist of the following members:
 - a. President of West Kenya Union Conference (Chair);
 - b. Vice-Chancellor of UEAB (Secretary);
 - c. Executive Secretary of East-Central Africa Division (Ex-officio);
 - d. Treasurer of East-Central Africa Division (Ex-officio);
 - e. Director of Education of East-Central Africa Division; (Ex-officio);
 - f. President of Greater Rift Valley Conference;
 - g. Executive Secretary of East Kenya Union Conference;
 - h. Treasurer of West Kenya Union Conference;
 - i. Director of Education of West Kenya Union Conference;
 - j. Director of Education of East Kenya Union Conference;
 - k. Lay Representative (Academic);
 - l. Lay Representative (Health Sciences)
 - m. Lay Representative (Legal Advisor)
 - n. Lay Representative (Corporate)
 - o. Lay Representative (Finance)
 - p. An Alumnus of UEAB;
 - q. A faculty representative of UEAB.
2. The Council of the University shall have and exercise the following functions:
 - a. To meet at least twice annually to transact University business;
 - b. To employ faculty and staff;
 - c. To approve the statutes and policies of the University;
 - d. To approve the budget;
 - e. To recommend to the Board of Trustees the appointment, transfer or dismissal of the Vice-Chancellor, every five years and/or when a vacancy arises;
 - f. To appoint, transfer or dismiss the Deputy Vice Chancellors, Business Manager, Dean of Student Affairs and Services, School Deans, Directors, department chairpersons, Extension Campus Administrators and other office bearers;
 - g. To establish schools, campuses, constituent colleges and affiliate colleges;
 - h. To approve requirements for awarding degrees;
 - i. To approve the description of degrees;
 - j. To approve/set the terms and conditions of service including appointments, dismissals, remuneration and retirement benefits of the staff and faculty of the University;
 - k. To approve any changes to the academic bulletin, employees' handbook and students' handbook as recommended by the University Senate;
 - l. To ensure the operation of the University as a whole

- and all its departments are in harmony with the general policies of the Seventh-day Adventist Church;
- m. To establish and ensure that operational policies and purposes of the University are being realized;
- n. To provide facilities and to maintain physical facilities adequate to meeting the needs of the planned students' enrollment in the various academic and vocational program which shall be adopted;
- o. To transfer, or dismiss administrative officers, faculty and staff members of the University;
- p. To prescribe the duties, terms and conditions that shall apply on recommendations by the senate or Administrative Board;
- q. To make such other appointments, paid or honorary, as may be necessary for the operation of the University;
- r. To promote qualified faculty and staff to appropriate ranks and positions as recommended by the University Senate and/or Administrative Board;
- s. To set rates for tuition, board, room, fees and the policies governing financial and scholarship relationships of the students to the University;
- t. To require and adopt annual operating budget for the University, which shall govern the financial activities and decisions in the operation of the University;
- u. To approve the financial record system of the University and to require an audit of these accounts annually by independent auditors;
- v. To receive, review and approve periodical financial statements of the University's operation;
- w. To administer the property and funds of the University both movable and immovable in a manner and for purposes which shall promote the best interest of the University;
- x. To receive on behalf of the University donations, endowments and grants;
- y. To signify the acts of the University by use of a Common Seal;
- z. To approve the composition of the major staff committees of the University;
- aa. To present a report of the operations of the University to the Board of Trustees through the Vice-Chancellor;
- bb. Approve rules and regulations for student Associations;
- cc. To perform such other functions as may be conferred upon it by this Charter and the statutes.

The Administrative Board

1. The Administrative Board shall consist of thirteen members as follows:
 - a. Vice-Chancellor, (Chairperson)
 - b. Deputy Vice-Chancellor for Academics, (Vice Chairperson);
 - c. Deputy Vice-Chancellor for Finance, Planning and Administration;
 - d. Deputy Vice-Chancellor for Student Affairs and Services;
 - e. Registrar, (Secretary);
 - f. University Chaplain;
 - g. The Director of Development and Alumni Affairs;
 - h. The Human Resource Manager;
 - i. The General Manager, Auxiliary Enterprises;
 - j. The Director of Quality Assurance;
 - k. The Director of Corporate Affairs;
 - l. Librarian;
 - m. One Dean of School on one year's rotation.
2. The functions of the Administrative Board shall be:
 - a. To implement University policies and Council actions;

- b. To carry out the day-to-day operations of the University;
- c. To make recommendations to the University Council;
- d. To handle any other matter related to the running of the University.

The University Senate

1. The Senate of the University of Eastern Africa, Baraton shall consist of:
 - a. Vice-Chancellor, (Chairman);
 - b. Deputy Vice-Chancellor for Academics, (Vice Chair);
 - c. Registrar (Secretary);
 - d. Deputy-Vice Chancellor for Finance and Planning and Administration;
 - e. Deputy-Vice Chancellor for Student Affairs and Services;
 - f. Director of Development and Alumni Affairs;
 - g. University Chaplain;
 - h. Librarian;
 - i. Deans of Schools;
 - j. Chairpersons of academic departments;
 - k. A representative not below the rank of a lecturer from each school selected by the faculty or the school;
 - l. Human Resource Manager;
 - m. Director of Affiliations, Linkages and Extension Programs;
 - n. Director of Graduate Studies;
 - o. Director of Research and Publications;
 - p. Auxiliary Enterprises General Manager;
 - q. President, Student Association;
 - r. Secretary General, Student Association;
 - s. Director of Quality Assurance;
 - t. University Professors;

- u. Director of Corporate Affairs;
- v. Directors of Extension Campuses.

2. The Senate shall have and exercise the following functions:
 - a. To recommend to University Council the approval of academic programs;
 - b. To recommend to the University Council the review of curricula;
 - c. To serve as the final academic board of examiners for graduating seniors as recommended by Boards of Examiners at Department and School levels;
 - d. To recommend to the University Council academic and related policies;
 - e. To review existing policies and/or set new policies on broad academic related issues;
 - f. To recommend annual budget to the University Council;
 - g. to recommend to the University council statutes on social, spiritual and academic policies;
 - h. To receive reports on the operation of any aspect of the university as deemed necessary;
 - i. To receive reports from faculty members who are engaged in research projects and publications;
 - j. To consider such other matters as may be delegated to it by the University administration.

Committees

The University Council may, by statute, establish such Committees as are necessary for the efficient discharge of the functions of the University.

Statutes

In performance of its functions under the University of Eastern Africa Baraton Charter 1991, the University Council makes the following statutes for the governance, control and administration of the University.

These statutes shall be cited as the University of Eastern Africa Statutes 1991, and shall come into effect on 29 March 1991 and upon approval of subsequent amendments by the Commission for Higher Education or the Government of the Republic of Kenya.

STATUTE I

Definitions

The terms in these Statutes shall be defined in context or in accordance with the definitions such terms have in the Charter.

STATUTE II

The Chancellor

The Chancellor shall be the President of the East-Central Africa Division (ECD) of the General Conference of the Seventh-day Adventist Church and shall hold office for five (5) years concurrently with his appointment as the President of East Central Africa Division.

1. The Chancellor advises the Vice-Chancellor and the Chairman of Council on the Constituency's expectation of the University;

2. The Chancellor chairs Board of Trustees meeting to appoint the Members of the Council, and the Vice-Chancellor as recommended by the University Council;
3. The Chancellor monitors the progress/performance of the University and advises the Council/Vice-Chancellor accordingly;
4. The Chancellor represents the interests of the University to the Constituency and the World Church as a whole;
5. The Chancellor confers degrees at congregations; and in his inability to do so, the Vice-Chancellor shall award them;
6. The Chancellor co-signs degree certificates with the Vice-Chancellor;
7. The Chancellor is an ex-officio member of the University Council.

STATUTE III

The Vice-Chancellor

1. The Vice-Chancellor shall be appointed every five years by the University Board of Trustees upon the recommendation of the University Council.
2. The Vice-Chancellor shall be the Chief Spiritual, Administrative and Academic head of the University.
3. The Vice-Chancellor shall be the Secretary of the University Council.
4. The Vice-Chancellor awards certificates, diplomas and degrees in the absence of the Chancellor, upon the latter's request.
5. The Vice-Chancellor may assign or delegate any of his duties

to a committee or to a member of the University faculty or staff and may withdraw any such delegation or assignment at will.

6. The Vice-Chancellor may re-assign responsibilities or transfer/re-deploy any member of the administrative board and recommend to the University Council for approval.
7. The Vice-Chancellor shall by virtue of his or her office, be a member of every committee functioning in the University.
8. The Vice-Chancellor shall carry out any other responsibility as pertains to his/her office.
9. The term for the Vice-Chancellor is five (5) years, and may be reviewed by the University Council.

STATUTE IV

The Deputy Vice-Chancellor for Academic Affairs

1. The Deputy Vice-Chancellor for Academic Affairs shall be appointed by the University Council.
2. The Deputy Vice-Chancellor for Academic Affairs' primary function shall be in the area of academic administration.
3. The Deputy Vice-Chancellor for Academic Affairs shall chair the Academic Standards Committee and Board of Graduate Studies of the University.
4. The Deputy Vice-Chancellor for Academic Affairs shall be an ex-officio member of every committee of the University related to academic matters.
5. The Deputy Vice-Chancellor for Academic Affairs reports to the Vice-Chancellor.
6. The term for Deputy Vice-Chancellor for Academic Affairs is five (5) years, and may be reviewed by the University Council.

STATUTE V

The Deputy Vice Chancellor for Finance, Planning and Administration

1. The Deputy Vice-Chancellor (DVC) for Finance, Planning and Administration shall be appointed by the University Council on such terms and conditions of service as recommended by the Council.
2. The Deputy Vice-Chancellor for Finance, Planning and Administration's primary function shall be in the area of Business management, finance and planning.
3. The Deputy Vice-Chancellor for Finance, Planning and Administration reports to the Vice-Chancellor.
4. The term for Deputy-Vice Chancellor for Finance, Planning and Administration is five (5) years, and may be reviewed by the University Council.

STATUTE VI

The Deputy Vice Chancellor for Student Affairs and Services

1. The Deputy Vice-Chancellor (DVC) for Student Affairs and Services shall be appointed by the University Council on such terms and conditions of service as recommended by the Council.
2. The Deputy Vice-Chancellor for Student Affairs and Services' primary function shall be in the area of student social services, accommodation, and deportment.
3. The Deputy Vice-Chancellor for Student Affairs and Services reports to the Vice-Chancellor.
4. The term for Deputy Vice-Chancellor for Student Affairs and Services is five (5) years, and may be reviewed by the University Council.

STATUTE VII

The University Chaplain

1. The University Chaplain shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe.
2. The University Chaplain's primary function is to provide spiritual leadership and to coordinate all religious activities of the University.
3. The University Chaplain shall be an ordained minister of the Seventh-day Adventist Church.
4. The University Chaplain shall have diversified ministry trainings including pastoral experience and clinical pastoral education.
5. The minimum required qualification for this position is M.A. Theology/Religion/Pastoral Ministry degree after completion of B.A. Theology/Religion degree. The term for the University Chaplain is five (5) years.
6. The University Chaplain is responsible to the Vice-Chancellor for the following functions:
 - a. Serves as the pastor of the University Church in accordance with the Church Manual and the policies of the Seventh-day Adventist Church.
 - i. Works with the elected leaders of the Church in planning and implementation of all the services of the Church.
 - ii. Prepares a sermonic year for the Church and models for the students a well ordered pulpit and Church program.
 - iii. Serves as a liaison between the University Church and the Greater Rift Valley Conference.
 - b. Provides specialized services to the University faculty/staff and students:
 - i. Teaches up to four credit hours per semester as may be requested by the University administration.
 - ii. Leads out in visitation, weddings, funerals, baptisms, etc.
 - iii. Leads out in staff/faculty and student visitations, counseling (premarital, marital, career, spiritual, psychological etc).
 - iv. Provides periodic written Reports to the University administration through the Vice-Chancellor.
 - v. Provides specialized ministerial services to students based on theology of presence and evangelism.
 - vi. Serves as a member of the following committees:
 - Religious Affairs Committee (Chairperson);
 - Administrative Board;
 - University Senate;
 - Student Aid Committee;
 - Student Affairs Committee;
 - Peer Counseling Committee;
 - HIV and AIDS Committee;
 - Any other committee as may be assigned by the Vice-Chancellor.
 - c. Carries out any other duties as may be specified by the Administrative Board.

STATUTE VIII

The Director of Quality Assurance

1. The Director of Quality Assurance shall be appointed by the University Council.
2. The Director of Quality Assurance is responsible to the Vice Chancellor.
3. The minimum required qualification for this position is PhD degree and the term for the Director of Quality Assurance is three (3) years.

4. The Director of Quality Assurance has the following major duties:
 - a. Assist with some teaching;
 - b. Chairs the University Quality Assurance Committee meetings;
 - c. Manages the Quality Assurance Directorate on behalf of the Vice Chancellor;
 - d. Leads out in the preparation of Self-Assessment/Self-Study documents required for Institutional Evaluation and External Quality Assurance assessment;
 - e. Leads out in verifying the extent to which the University conforms to the standards and guidelines of the Department of Education of the Seventh-day Adventist Church, Commission for University Education, and Inter-University Council for Eastern Africa;
 - f. Leads out in the coordination of training the staff, faculty, and community to ensure quality service delivery and customer satisfaction;
 - g. Attends internal and external meetings and conferences on quality assurance;
 - h. Follows up recommendations of Quality Assurance findings, recommendations of accrediting bodies, professional bodies, and tracer studies;
 - i. Monitors the performance of quality assurance committees at school, academic and non-academic departments, extension campuses and affiliated institutions;
 - j. Keeps, administration, faculty, staff and students awareness of Quality Assurance issues and best practices in university education;
 - k. Assists as appropriate in servicing validation, inspection and monitoring of academic programs;
 - l. Coordinates faculty evaluation, peer review and staff assessment;
 - m. Carries out any other responsibility assigned to him/her by the University Administration.
5. The Director of Quality Assurance shall serve as a member of the following Committees:
 - a. Admissions Committee;
 - b. Academic Standards Committee;
 - c. Board of Graduate Studies;
 - d. University Senate.
 - e. Any other committee as may be assigned by the Vice-Chancellor.

STATUTE IX

The Registrar

1. The Registrar shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe.
2. The Registrar chairs the Admissions Committee.
3. The Registrar shall be the custodian of all academic records, and regalia.
4. The Registrar authenticates students' satisfactory fulfillment of graduation requirements.
5. The Registrar reports to the Deputy Vice-Chancellor for Academic Affairs.
6. The Registrar shall be the Secretary to the Administrative Board and University Senate.
7. The minimum required qualification for the Registrar position is Master's degree and the term is for three (3) years.

STATUTE X

Director/Coordinator of Extension Campus

The Director/Coordinator of Extension Campus shall report

to the Vice-Chancellor. He/She shall be appointed by the University Council upon recommendation by the Administrative Board. The minimum required qualification is Master's degree and the term for the Director is three (3) years while for the Coordinator of Extension Campus is two (2) years.

STATUTE XI

School Dean

The Dean shall be appointed by the University Council upon recommendation of the Administrative Board on such terms and conditions of service as the Council may prescribe. The Dean of a School is the chief academic officer of the School and reports to the Deputy Vice-Chancellor. The minimum required qualification for this position is PhD degree with the rank of at least Senior Lecturer. The term for the School Dean is three (3) years

STATUTE XII

Chairperson of a Department

The Chairperson of a department shall be appointed by the University Council upon recommendations by the Administrative Board through the appointments and promotions Committee on such terms and conditions of service as the Council may prescribe. The Chairperson is the chief academic officer of the Department and reports to the School Dean.

The minimum required qualification for this position is Master's degree with the rank of at least Senior Lecturer. The term for the Chairperson is two (2) years for those with Masters degrees and three years (3) for those with PhD degrees.

STATUTE XIII

The Librarian

The Librarian shall be appointed by the University Council upon recommendations by the Senate on such terms and conditions of service as the Council may prescribe. The Librarian directs the total operation and services of the library and shall be responsible to the Deputy Vice-Chancellor for Academic Affairs. The minimum required qualification for this position is Master's degree. The term for the Library is five (5) years.

STATUTE XIV

Terms and Conditions of Service of Staff

The University Council shall prescribe the duties, term, and conditions of service of such academic and administrative staff (whether paid or honorary) as it may deem necessary for the efficient functioning of the university. In addition, the Council may transfer or discharge administrative officers, faculty, and staff members as and when it deems necessary.

STATUTE XV

The University Council

1. The University Council shall report to the Board of Trustees.
2. The membership, powers, and functions of the University Council shall be as prescribed in the University of Eastern Africa, Baraton Charter, 1991, and as revised in October 2014 in accordance with the Universities Act, 42 of 2012.
3. The University Council shall meet at least twice during an academic year and one of these meetings shall be on the campus of the University. The quorum shall be at least half of the total membership.
4. Decisions of the Council shall be by a simple majority vote of those present and voting, provided that the chairman of

- the Council shall have an original and a casting vote.
5. The Chairman, may at any time, call a meeting of the Council, and shall call a meeting within 30 days of receiving a request for that purpose addressed to him and signed by at least a third of the membership of the Council.
 6. The Council may, subject to such limitations as it may think fit, delegate any of its duties to the Chairman or to committees consisting of such members of the Council and other persons as it may think fit. The Council may empower any such committee to act jointly with any other committee provided that the Council shall not delegate to the Chairman or to a committee the power to approve without further reference to the Council, the Annual Operating Budget.
 7. The Chairman or, in his absence, a Vice Chairman, shall preside at all meetings of the Council.
 8. The Council may, at the discretion of the Chairman, transact any business by the circulation of papers or electronic mail and any decision so taken shall be submitted for ratification at the next meeting of the Council.
 9. The Secretary of the Council shall keep the minutes of the Council's deliberations, which must be ratified at a subsequent meeting.
 10. The Council may invite members of the administrative board and any other person

STATUTE XVI

The Subcommittees of the Council

The Council shall have the right to create sub-committees which shall include but not limited to the following: Academic, Finance and Development, and Student Affairs Services and Spiritual Affairs.

STATUTE XVII

The Administrative Board

1. The Administrative Board manages the day-to-day operations of the University and shall meet at least twice a month.
2. A quorum of the Administrative Board shall be at least half of its membership.

STATUTE XVIII

The Senate

1. The powers and functions of the Senate are as prescribed in the University of Eastern Africa Baraton Charter, 1991 and revised in October 2014 in harmony with the Universities Act, no. 42, of 2012.
2. The Senate shall meet at least once a semester.

STATUTE XIX

Quorum

All University Committee and sub-committee meetings shall have a quorum of at least half the number of its membership.

STATUTE XX

Terms of Service

1. All administrative and associate officers shall have a term of five years or as may be revised by the University Council, during which they shall be subject to assessment of their performance to determine their effectiveness;
2. University Administration shall reserve discretion to recommend to the University council for a decision in respect to evaluation outcome.

STATUTE XXI

Appointment and Removal of the Vice Chancellor from office

1. Appointment to the office
 - a. The Vice-Chancellor shall be appointed by the Board of Trustees upon the recommendation of the University Council, for a period of five years;
 - b. The Vice-Chancellor shall be appointed from persons qualified with extensive teaching, administrative and research experience;
 - c. The Vice-Chancellor shall uphold the philosophy, vision, mission and values of the University and the beliefs of the Seventh-day Adventist Church.
2. Removal from office
 - a. The University Council shall reserve the right to recommend to the Board of Trustees the removal/suspension of the Vice Chancellor from office before expiry of term of service;
 - b. The Board of Trustees shall determine the case within three months;
 - c. The Vice-Chancellor shall be removed/suspended from office due to any of the following reasons:
 - i. Medical incapacitation;
 - ii. Gross misconduct, insubordination, violation of established ethical standards, non-performance;
 - iii. Any other actions that contravene the rules, policies, and regulations that govern the office.

STATUTE XXII

Departments, Institutes and Schools

There shall be such Departments, institutes and Schools within the University as the Council may from time to time decide. The University Master Plan calls for the establishment of the following schools and directorates:

1. Applied Sciences and Technology

- a. Agriculture
- b. Industrial Technology
- c. Family and Consumer Sciences
- d. Computer Science
- e. Information Technology
- f. Veterinary Medicine

2. Business

- a. Accounting
- b. Economics
- c. Finance
- d. Human Resource Management
- e. Management
- f. Marketing
- g. Secretarial Studies

3. Education

- a. Adult Education
- b. Arts Education
- c. Counseling Psychology
- d. Educational Psychology
- e. Primary Education
- f. Psychology
- g. Science Education
- h. Secondary Education

4. Directorate of Graduate Studies

- a. Master of Arts
- b. Master of Arts in Education
- c. Master of Business Administration
- d. Master of Business Management
- e. Master of Education

- f. Master of Public Health
- g. Master of Science
- h. Master of Science in Education
- i. Master of Science in Nutrition and Dietetics
- j. Master of Science in Nursing
- k. Doctor of Business Admission
- l. Doctor of Business Management
- m. Doctor of Education
- n. Doctor of Philosophy

5. Health Sciences

- a. Biomedicine
- b. Clinical Medicine
- c. Medical Laboratory Sciences
- d. Medical Technology
- e. Nursing
- f. Public Health
- g. Pharmacy

6. Natural Sciences

- a. Biology
- b. Mathematics
- c. Chemistry
- d. Physics

7. Humanities and Social Sciences

- a. English
- b. Development Studies and Social Services
- c. French
- d. Geography
- e. History
- f. Kiswahili
- g. Music
- h. Mass Communication

8. Medicine

9. Dentistry

10. Computing and Information Technology

11. Theology and Religious Studies

12. Law

and Services and/or the Deputy Vice Chancellor for Student Affairs and Services.

STATUTE XXIV

Committees

1. The University Council and/or the Administrative Board shall create or dissolve committees as the need may arise.
2. There shall be two major administrative organs for the University. These are:
 - a. The Administrative Board: The Administrative Board is responsible for all administrative matters of the University. The Administrative Board shall have several committees.
 - b. The Senate: The Senate is responsible for the academic administration of the University and all the academic matters. The Senate shall have several committees.
3. Administrative Board Committees: The following committees and any other that the Council or the Administrative Board may deem necessary shall function regularly and report to the Administrative Board through the Vice Chancellor:
 - a. Appointments and Promotions Committee:
 - i. Carries out the faculty and staff recruitment process and make recommendations to the Administrative Board;
 - ii. Deals with academic ranking and promotion and makes recommendations to the Administrative Board.
 - b. Auxiliary Enterprises Board: Monitors the performance of auxiliary enterprises and makes recommendations to the Administrative Board.
 - c. BIS Management Board:
 - i. Oversees the functions of the Baraton International School.
 - ii. The Board shall plan for the development of the School and supervise that effective teaching and efficient service delivery is provided.
 - d. Building and Development Committee: Plans and advises the University administration on development projects and the construction of physical structures.
 - e. Campus Beautification Committee.
 - f. Campus Security Committee: Monitors and advises the administration on the security situation on campus.
 - g. Counseling and Advisory Committee.
 - h. Disposal Committee
 - i. Employee Disciplinary Committee:
 - i. The Vice Chancellor shall constitute a disciplinary committee to investigate misconduct or any other case involving faculty or staff members.
 - ii. The recommendations of the committee shall be submitted to the Vice Chancellor and appropriate disciplinary action shall be taken by the Administrative Board
 - j. Employee Handbook Review Committee
 - k. Estate Management Committee
 - l. Faculty and Staff Grievance Committee
 - m. Faculty and Staff Social Committee
 - n. Farm Committee
 - o. Financial Statements Review Committee
 - p. Food Services Committee
 - q. Fundraising and Alumni Committee
 - r. HIV/AIDS Committee:
 - i. Creates HIV/AIDS awareness,
 - ii. Offers counseling and support and creates channels of referral for the infected and affected members of the University Community and its environs.
 - s. Housing Committee
 - t. Industry Linkages Committee
 - u. IT Services Committee

STATUTE XXIII

The Student Association

1. A Student Association may be organized each academic year on the basis of democratic elections of the student leaders by the students themselves as shall be outlined in the constitution of the Student Association of the University observing the following:
 - a. The top student leadership (officers) of the Student Association shall be elected by the students directly from the general student body. The Student Association leader shall be a member of the Seventh-day Adventist Church.
 - b. Each academic department shall have one representative on the Student Association for every 100 students or major fraction thereof, provided that each department shall have at least one representative regardless of enrollment.
2. The purpose of the Student Association shall be to provide students with orderly avenues through which they can share concerns and suggestions with the University administration.
3. The Student Association shall have two faculty advisors appointed by the Administrative Board, in consultation with the student leadership. The Student Association shall function under the jurisdiction of the Dean of Student Affairs

- v. Jeremic Hospital Board
- w. Media Center Management Committee
- x. Newsletter Editorial Board
- y. Planning and Budget Committee: Carries out budgeting and financial planning and make recommendations to Council through the Administrative Board.
- z. Procurement Committee
- aa. Religious Activities Committee: Coordinates the religious activities of the University within the framework of the tenets of the Seventh-day Adventist Church.
- bb. Safety and Health Committee
- cc. Scholarships and Bursaries Committee
- dd. Sports Committee
- ee. Strategic Plan Evaluation Committee
- ff. Student Affairs and Services Committee: advises the Administration on the non-academic aspects of student life, e.g. accommodation, deportment, recreation, etc.
- gg. Student Disciplinary Committee: handles student disciplinary cases and advises the administration accordingly.
- hh. Student Financial Aid Committee: handles aid to worthy and needy students.
- ii. Student Work Program Committee: Coordinates student work program activities.
- jj. Transport Committee
- 4. Senate Committees: The following committees and any other that the Council or the Administrative Board may deem necessary shall function regularly and report to the Senate through the Vice Chancellor:
 - a. Academic Bulletin Review Committee
 - b. Academic Standards Committee: sets and monitors the standards for curricular and academic matters.
 - c. Admissions Committee: in charge of admission process, selection of applicants and entry requirements verifications.
 - d. Affiliations and Extensions Committee: handles all matters related to affiliation and extensions.
 - e. Board of Graduate Studies: Coordinates graduate studies programs in a particular school and/or department.
 - f. Books and Publications Committee
 - g. Curriculum Review Committee
 - h. Examinations Committee
 - i. Graduation Committee: Plans and coordinates all graduation activities.
 - j. Instructional Technology Committee
 - k. Library Committee: Supervises the library operations and advises the Librarian on matters pertaining to the efficient operation of the Library.
 - l. Peer Review Committee
 - m. Quality Assurance Committee
 - n. Research and Conferences Committee: coordinates and facilitates research conferences and professional growth activities for faculty and staff.
 - o. Research Ethics Committee.
- 5. The University Council or the Administrative Board may, from time to time, approve or discontinue other committees as it deems fit.

STATUTE XXV

Admission Criteria

1. The admission criteria shall be determined from time to time in line with government regulations, by the University Council upon recommendation by the University Senate.
2. International Applicants must satisfy all Immigration formalities in force and obtain a Pupil's Pass from the Kenya

Immigration Department.

3. Admission is subject to meeting the required minimum mean grade of C+ in KCSE (or its equivalent), course cluster requirements, character recommendations and the availability of classroom.
4. From time to time, the University shall prescribe the level of performance that will be accepted as minimum qualifications for entry into any level of University program.

STATUTE XXVI

Graduate Programs

1. Candidates for Admission to Graduate programs must fulfill admission requirements which will be in force at the time of application.
2. For master's degrees, applicants must hold a bachelor's degree from UEAB or an equivalent qualification from other institutions recognized by UEAB.
3. The University, from time to time, shall prescribe the level of performance in the bachelor's program that will be accepted as minimum qualification for entry into a master's program.

STATUTE XXVII

Designation of Degrees

1. The University shall have power to confer the following degrees:

TO BE DENOTED BY THE FOLLOWING LETTERS:

School of Applied Science and Technology

Bachelor of Science	B.Sc.
Bachelor of Science in Industrial Technology	B.ScIT
Bachelor of Technology	B.T.
Master of Science	M.Sc.
Doctor of Philosophy	Ph.D
Doctor of Science	D.Sc.

School of Science and Technology

Bachelor of Science	B.Sc.
Bachelor of Science in Industrial Technology	B.ScIT
Bachelor of Technology	B.T.
Master of Science	M.Sc.
Doctor of Philosophy	Ph.D
Doctor of Science	D.Sc.

School of Business

Bachelor of Business Administration	BBA
Master of Business Administration	MBA
Doctor of Philosophy	PhD

School of Education, Humanities and Social Sciences

Diploma in Education	Dip. Ed.
Post-Graduate Diploma in Education	PGDE
Bachelor of Arts	BA
Bachelor of Education	B. Ed
Master of Arts	MA
Master of Education	M. Ed
Doctor of Education	Ed.D
Doctor of Philosophy	PhD

School of Nursing & Health Sciences

Bachelor of Science	BSc
Bachelor of Public Health	BPH
Master of Science	M.Sc
Master of Public Health	MPH

School of Medicine

Bachelor of Medicine	BMed
Bachelor of Pharmacy	BPharm
Bachelor of Medicine and Bachelor of Surgery	MBChB
Bachelor of Pharmacy	BPhM
Master of Medicine	MMed

School of Natural Sciences

Bachelor of Science	B.Sc
Master of Science	M.Sc
Doctor of Philosophy	PhD
School of Theology and Religion	

Bachelor of Arts BA

Master of Arts	MA
Master of Divinity	M.Div
Master of Pastoral Studies	MPS
Doctor of Ministry	DMin
Doctor of Philosophy	PhD
Doctor of Theology	ThD

School of Law

Bachelor of Law	LLB
Master of Law	LLM
Doctor of Law	LLD

Every degree certificate shall incorporate a brief description of the course or subject of specialization.

STATUTE XXVIII

Awarding Degrees, Diplomas, Certificates

1. The University shall award degrees to students who have qualified for admission to certain degree levels, the standards of which are established for each program by respective schools and ratified by the University Council.
2. Upon the approval of the Senate, the University shall award degrees to students who will have satisfactorily fulfilled the requirements for each particular degree offered as established by respective departments and schools and ratified by the University Council.
3. The University may grant honorary degrees for meritorious achievement. A recommendation to grant an honorary degree shall originate from the Senate and shall be presented by the Vice-Chancellor to the University Council for approval. The criteria for granting honorary degrees shall be formulated by the Senate and approved by the University Council.

STATUTE XXIX

Conferring Degrees

1. Graduation ceremony of the University of Eastern Africa Baraton shall be held at least once a year and shall be presided over by the Vice-Chancellor or any other person nominated by the Vice-Chancellor in consultation with the Chancellor.
2. The Chancellor confers degrees at congregations; and in his inability to do so, the Vice-Chancellor shall award them.
3. A candidate shall not be granted a degree, other than an honorary degree, unless the candidate has paid such fees as may be prescribed by the Council, and Senate ratifies that such candidate has fulfilled all the requirements prescribed for such degree.
4. The procedure for conferring of degrees, the regalia to be worn and all other matters regarding Graduation Exercise shall be determined by the Senate and approved by the University Council

STATUTE XXX

Revocation of Degrees

The University reserves the right to revoke any degree, diploma or certificate upon evidence of forgery, plagiarism, and/or impersonation.

STATUTE XXXI

University Examinations

1. The University Examinations shall be conducted under the control of the Academic Standards Committee.
2. The Academic Standards Committee shall promulgate regulations which will safeguard the Academic integrity of the University.
3. In the event of any alleged examination irregularity, the Academic Standards Committee shall investigate the case and report it to the Vice-Chancellor for action on behalf of the Senate; provided the aggrieved party shall always be given a hearing

STATUTE XXXII

Financial Regulations

1. All the funds, assets and property, movable and immovable, of the University shall be managed and utilized by the Council in accordance with the University Charter, 1991.
2. Sources of funds shall be:
 - a. Annual grants and appropriations from the East Kenya Union Conference, West Kenya Union Conference, and any other Union Conference to be established in Kenya and the East-Central Africa Division of the General Conference of the Seventh-day Adventist Church.
 - b. Endowments, gifts and trusts.
 - c. Research grants.
 - d. Tuition and fees.
 - e. Income from University auxiliary enterprises and investments.
 - f. Such other sources as the University may from time to time identify.
3. The financial year of the University shall be the period of twelve (12) months commencing September 1 of a given year and ending August 31 of the following year.
4. Before the commencement of a financial year, the Vice-Chancellor shall through the office of Deputy Vice-Chancellor for Finance, Planning and Administration in consultation with the Deputy Vice-Chancellor and other personnel, prepare a budget detailing the estimated revenues and expenditures during the financial year.
5. The Annual budget shall be presented to the University Council for approval prior to the beginning of the new financial year.
6. The Deputy Vice-Chancellor for Finance, Planning and Administration shall provide members of the Administrative Board and the University Council with a detailed monthly statement of all revenues and expenditures.
7. The accounting records of the University shall be audited regularly by the General Conference Auditing Services.
8. The University shall have the right to withhold the conferment of any degree, certificate or award, or the release of any transcripts of Academic record until any outstanding fees are settled with the University.

STATUTE XXXIII

Gender Equity

Gender equity shall be maintained at all levels of administration and governance.

STATUTE XXXIV

Miscellaneous

1. These revised statutes shall go into effect on the day after the day the University of Eastern Africa, Baraton Charter has been approved by the Commission for University Education.
2. The University Council may recommend to the Board of Trustees amendments, nullifications or additions to any Statute as and when it deems fit/necessary.
3. The University Council reserves the right to recommend to the Board of Trustees to create and/or dissolve any office

that it shall deem necessary for the proper functioning of the University.

4. The University Board of Trustees reserves the right in consultation with the University Council to amend, nullify and/or add to any Statute as/and when it deems fit/necessary.
5. Civil Jurisdiction in case of legal disputes: When there are disputes with the University, cases must be filed within the region where the University is located at Kapsabet Law Courts in Nandi County and/or Eldoret Law Courts in Uasin Gishu County only.

Administration of the University

THE VICE-CHANCELLOR

The Vice-Chancellor shall be the administrative and Academic Head of the University

THE DEPUTY VICE-CHANCELLOR, ACADEMICS

The Deputy Vice-Chancellor, Academics shall have such functions and powers as the University Council may, by statute, define.

THE DEPUTY VICE-CHANCELLOR, FINANCE AND ADMINISTRATION

The Deputy Vice-Chancellor, Finance and Administration shall be the Chief Financial Officer of the University

THE DEPUTY VICE-CHANCELLOR, STUDENT AFFAIRS AND SERVICES

The Deputy Vice-Chancellor, Student Affairs and Services shall be responsible for all student services other than those related to finances.

THE REGISTRAR

The Registrar of Admissions and Records shall have such functions and powers as the University Council may, by statute, define.

ADMINISTRATORS

Prof. Jackson Msafiri	- Vice-Chancellor
Dr. Paul Wahonya	- Deputy Vice Chancellor Academics and Student Affairs (DVC ASA)
Dr. Jackson Ongeta	- Deputy Vice Chancellor Finance, Planning and Administration (DVC FP&A)
Ms. Pirscah Misoi	- Chief Finance Officer
Dr. Elizabeth Metto	- Registrar
Dr. Duncan Mumbo	- University Chaplain
Prof. Moses Kibirango	- Director of Quality Assurance
Ms. Judith Kibirango	- Human Resource Manager
Mr. Japheth Kirwa	- General Manager, Industries
Mr. Joseph Metto	- Corporate Affairs Officer
Mr. Robert Migai	- Director, Development and Alumni Affairs

ASSOCIATE ADMINISTRATORS

Hellen Magut	- Chief Librarian
Giftson Jacob	- Deputy Registrar

ASSISTANTS IN ADMINISTRATION

Damacline Abuya	- Medical Director
Samuel Kariuki	- Dean of Men
Prudence Kittur	- Acting Food Services Manager
Alice Ouma	- Dean of Women

ADMINISTRATION ASSISTANTS

Titus Misoi	- Physical Plant Manager
Magdalane Lagat	- Supervisor, Bookstore and Supermarket
Carloine Chebos	- Assistant Registrar, Examinations
Festus Kosgei	- Assistant Registrar, Records
Kennedy Wanyonyi	- Assistant Registrar, Admissions
Martha Wamalika	- Assistant Librarian

DEANS OF SCHOOLS

Prof. Chidozie Ibeneme	- School of Business
Dr. Odek Rabach	- School of Education, Humanities and Social Sciences
Prof. Hellen Ndiku	- School of Nursing & Health Sciences
Prof. Paul Francis	- School of Science and Technology

DIRECTORS OF OTHER ACADEMIC SERVICES

James Mutua	- Director, Ellen G. White and Heritage Research Center
Adventist	
Ramesh Francis	- Director of Research and Graduate Studies
Moses Kibirango	- Director of Quality Assurance and Director of Affiliations, Linkages and Extension Programs

VICE-CHANCELLORS WHO HAVE SERVED THE UNIVERSITY

Dr. Percy Paul	- 1980 - 1982
Dr. Svein Mykelbust	- 1983 - 1988
Dr. Roland McKenzie	- 1989 - 1992
Dr. Mishael Muze	- 1993 - 1995
Prof. J. K. Mutinga	- 1996 - 2003
Prof. T. McDonald	- 2004 - 2006
Dr. Nathaniel Walemba	- 2007 - 2010
Prof. Miriam Mwita	- 2011 - 2014
Prof. Phillip Maiyo	- 2014 - 2024
Prof. Jackson Msafiri	- 2024 -

Abunda Joshua Tutorial Fellow in Management BTh., Bugema University BCom., Mohanlan Sukhadia, University, India MCom., Mohanlan Sukhadia University, India PhD., in progress, Jomo Kenyatta University of Agriculture and Technology	2014	Ayiemba, James Lecturer in Electronics BST., University of Eastern Africa, Baraton MSc., University of Applied Sciences, Westfalia PhD., in progress, University of Eastern Africa, Baraton	2002
Abuto, Edgar Tutorial Fellow in Chemistry BSc., Jomo Kenyatta University of Agriculture and Technology MPhil., Moi University PhD., in progress, Maseno University	2011	Ayiemba, Jane Lecturer in Education BEd., Bugema University, Uganda MEd., University of Eastern Africa, Baraton PhD., University of Eastern Africa, Baraton	2007
Abwao, Moses Field Instructor in Public Health BSc., University of Eastern Africa, Baraton	2022	Bakker Daniel Kiche Lecturer in Mathematics BSc., University of Eastern Africa, Baraton MSc., Maseno University PhD., Jaramogi Oginga Odinga University of Science and Technology	2014
Adegue, Enock Graduate Assistant in Information Systems and Computing BSc., University of Eastern Africa, Baraton	2000	Baongoli, Mungengo Lecturer in English BA., University of Eastern Africa, Baraton MA., University of Nairobi PhD., in progress, Kisii University	2004
Akinyi, Edina Akuru Tutorial Fellow in Nursing BSc., University of Eastern Africa, Baraton MSc., Loma Linda University	2014	Barno, Hellen Tutorial Fellow in Kiswahili BA., University of Eastern Africa, Baraton MPhil., Moi University PhD., in progress Moi University	2012
Aliviza, Noel Clinical Instructor in Nursing BSc., Masinde Muliro University	2022	Barongo, Asenath Tutorial Fellow in Public Health BSc., Moi University MPh., Moi University PhD., in progress, University of Eastern Finland	2005
Amimo, Catherine Ass. Professor in Education BEd., University of Eastern Africa, Baraton MEd., University of Eastern Africa, Baraton PhD., University of Eastern Africa, Baraton	2005	Bett, Bonface Graduate Assistant in Information Systems and Computing BBIT., University of Eastern Africa, Baraton	2024
Arito, Brian Okuku Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton MSc., in progress, University of Eastern Africa, Baraton	2021	Biwott, Edna Field Instructor in Public Health BSc., University of Eastern Africa, Baraton	2024
Ateka, Esther Graduate Assistant in Foods, Nutrition and Dietetics BSc., University of Eastern Africa, Baraton MSc., in progress, University of Eldoret	2014	Boke, Tabitha Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton MSc., in progress, University of Eastern Africa, Baraton	2022
Atuya, Gershom Tutorial Fellow in Mathematics BSc., Jomo Kenyatta University of Agriculture and Technology MSc., Jomo Kenyatta University of Agriculture and Technology PhD., in progress, Jomo Kenyatta University of Agriculture and Technology	2014	Boor, Felix Tutorial Fellow in Foods, Nutrition and Dietetics BSc., University of Eastern Africa, Baraton MSc., Jomo Kenyatta University PhD., in progress, Kenyatta University	2013
Aunga David Senior Lecturer in Accounting BCom, DEVV, University, India MCom, DEVV, University, India DODT, Cebu Doctors University, Philippines	2021	Bundi, Andrew Tutorial Fellow in Theology BA., University of Eastern Africa, Baraton MA., Adventist International Institute of Advance Studies PhD., in progress, Adventist University of Africa	2018

Chebos, Caroline Chebichi Tutorial Fellow in Mathematics BSc., University of Eastern Africa, Baraton MSc., Jomo Kenyatta University of Agriculture and Technology PhD., in progress, Moi University	2015	Jepchirchir, Gladys Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton	2019
Chelang'at, Patricia Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton	2019	Jepkosgei, Selah Graduate Assistant in Clinical Medicine Bachelor of Clinical Medicine., University of Kabianga	2025
Chemis, Lena Jerotich Graduate Assistant in Agriculture BSc., University of Eastern Africa, Baraton	2015	Jeptoo, Jane Laboratory Technician in Medical Laboratory Science BSc., University of Eastern Africa, Baraton	2015
Chepsiror, Felix Tutorial Fellow in Information Systems and Computing BSc., Periyar University, India MSc., Periyar University, India MPhil., Gandhigram Rural Institute Deemed University, India PhD., in progress, Kabarak University	2019	Juma, Mariam Laboratory Assistant in Biology BSc., University of Eastern Africa, Baraton	2025
Ciira, Mary Tutorial Fellow in Linguistics BEd., University of Nairobi MA., University of Nairobi PhD., in progress, University of Eastern Africa, Baraton	2005	Kamundi, Shadrack Senior Lecturer in Education BA., Bugema University Med., University of Eastern Africa, Baraton PhD., University of Eastern Africa, Baraton	2018
Francis, Gracelyn Senior Lecturer in Biology BSc., University of Madras, India MSc., University of Madras, India PhD., University of Eldoret.	2010	Kamundi, Tabitha Lecturer in Education BEd., Bugema University MEd., Kenyatta University PhD., Masai Mara University	2025
Francis, Paul Samuel Professor of Mathematics BSc., Bharathiar University, India MSc., Bharathiar University, India MPhil., Bharathiar University, India PhD., Bharathiar University, India	2012	Kariuki, Samuel Ngugi Lecturer in English BEd., University of Nairobi MA., Kenyatta University PhD., in Progress University of Eastern Africa, Baraton	2007
Francis, Ramesh Professor of Biology BSc., Bharathiar University, India MSc., Bharathiar University, India MPhil., Bharathiar University, India PhD., Bharathiar University, India	2010	Kemboi, Bernard Tutorial Fellow in Agriculture BSc., Moi University MSc., Moi University PhD., in progress, Moi University	2017
Giftson, Susan Tutorial Fellow in Nursing BSc., Tamil Nadu Dr MGR Medical University, India MSc., Tamil Nadu Dr MGR Medical University, India PhD., In Progress Masinde Muliro University of Science and Technology	2015	Kemboi, Willy Kipchirchir Tutorial Fellow in Biology BSc., University of Eastern Africa, Baraton MSc., University of Eastern Africa, Baraton PhD., in Progress University of Nairobi	2013
Gitonga, Nathan Senior Lecturer in Management BA., Spicer Memorial College, Pune, India MA., Tilak Maharashtra Vidyapeeth, Pune, India PhD., Tilak Maharashtra Vidyapeeth, Pune, India	2022	Kibet, Collins Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton	2021
Ibeneme, Chidozie Professor in Management BA., Andrews University MCom., Marathwada University, India PhD., Marathwada University, India	2020	Kibirango Moses Ass. Professor in Management BLA., Spicer Memorial College, India MBA., Tilak Maharashtra Vidyapeeth, Pune India PhD., Makerere University	2018
		Kasay, Laurent Lecturer in Religion BA., Adventist University of Central Africa MA., Adventist International Institute of Advanced Studies, Philippines PhD., Adventist International Institute of Advanced Studies, Philippines	2021

Kilonzo, Boniface Tutorial Fellow in History BA., University of Eastern Africa, Baraton MA., Moi University	2013	Lagat, Edith Clinical Instructor in Foods, Nutrition and Dietetics BSc., University of Eastern Africa, Baraton	2024
Kinuthia, Benson Senior Lecturer in Education BST., University of Eastern Africa, Baraton MEd., University of Eastern Africa, Baraton PhD., University of Eastern Africa, Baraton	2002	Lagatt, Sammy Kipkemei Tutorial Fellow in Nursing BSc., University of Eastern Africa, Baraton MSc., Loma Linda University	2022
Kipkoge, Merary Tutorial Fellow in Statistics BSc., Laikipia University MSc., Maseno University PhD., in progress, Maseno University	2021	Lelei, Walter Tutorial Fellow in Medical Laboratory Science BSc., Maseno University MSc., Jomo Kenyatta University of Agriculture and Technology PhD., in Progress, Jomo Kenyatta University of Agriculture and Technology	2018
Kipkosgei, Dan Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton	2023	Leleiy, William K. Graduate Assistant in Technology BST., University of Eastern Africa, Baraton MSc., in progress, Moi University	2001
Kirui, Jackson Seroney Tutorial Fellow in Biology BSc., University of Eastern Africa, Baraton MSc., University of Eastern Africa, Baraton PhD., in progress, University of Eastern Africa, Baraton	2016	Lumumba, Everlyne Sayo Clinical Instructor in Nursing BSc., Moi University	2025
Kittur, Abraham Tutorial Fellow in Medical Laboratory Sciences BSc., University of Eastern Africa, Baraton MSc., Moi University PhD., in Progress Moi University	2013	Magundu, Richard Ngaru Tutorial Fellow in Medical Laboratory Sciences Diploma Kenya Polytechnic BSc., University of Eastern Africa, Baraton MSc., University of Eastern Africa, Baraton	2015
Kivuva, Linda Bonface Tutorial Fellow in Nursing BSc., University of Eastern Africa, Baraton MSc., Chuka University	2024	Magut, Hillary Tutorial Fellow in Chemistry BSc., University of Eastern Africa, Barton MSc., University of Eldoret PhD., in progress, University of Eldoret	2009
Kolum, Shadrack Graduate Assistant in Development Studies BA., University of Eastern Africa, Baraton MA., in progress, Moi University	2017	Maiyo Grace Lecturer in Foods, Nutrition and Dietetics BSc., Guru Nanak Dev University, India MSc., Guru Nanak Dev University, India PhD., in Progress, Jomo Kenyatta University of Agriculture and Technology	2014
Komollo, Amos Tutorial Fellow in Mass Communication BA., University of Nairobi MA., University of Nairobi PhD., in progress, University of Nairobi	2025	Malayi, Alex Lecturer in Counseling Psychology BA., University of Eastern Africa, Baraton MPhil., Moi University MA., Andrews University PhD., in Progress, Moi University	2012
Korir, Abi Jebet Tutorial Fellow in Nursing BSc., University of Eastern Africa, Baraton MSc., Loma Linda University	2018	Mambo, Martha Lecturer in French BA., University of Nairobi MA., Kenyatta University PhD., Moi University	2002
Korir, Erick Laboratory Assistant in Technology BST., University of Eastern Africa, Baraton	2019	Mambo, Richard Tutorial Fellow in Management BBA., University of Eastern Africa, Baraton MBA., Aston University, United Kingdom PhD. in progress, University of Nairobi	2011
Korir, Isaac Kipchumba Tutorial Fellow in Nursing BSc., San Carlos University, Philippines MSc., University of Cebu Normal, Philippines PhD., in Progress Masinde Muliro University of Science and Technology	2016	Maritim, Moreene Field Instructor in Public Health BSc., University of Eastern Africa, Baraton	2025
Korir, Janet Clinical Instructor in Nursing BSc., University of Kabianga	2022		

Maroa, Semakula Samwel Lecturer in Technology BT., University of Eastern Africa, Baraton MSc., University of KwaZulu-Natal PhD., University of KwaZulu-Natal	2022	Mobisa, Fredrick Tutorial Fellow in Information Systems and Computing BSc., University of Nairobi MSc., Jaramogi Oginga Odinga University of Science and Technology PhD., in progress, Jaramogi Oginga Odinga, University of Science and Technology	2024
Marundu, Dorcas Lecturer in Education BEd., University of Nairobi MEd., University of Nairobi PhD., University of Eastern Africa, Baraton	2023	Mocha Evans Motanya Clinical Instructor in Nursing BSc., Adventist University of the Philippines	2015
Matte, Daniel Lecturer in Theology BA., Bugema University MA., Solusi University DMin., Adventist University of Africa	2023	Mogut, Wilfred Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton	2022
Maweu, Peninah Laboratory Assistant in Foods, Nutrition, and Dietetics BSc., University of Eastern Africa, Baraton	1999	Mooka, Edward Senior Lecturer in English BEd., University of Eastern Africa, Baraton MA., University of Witwatersrand, South Africa PhD., Kenyatta University	2006
Mbata Kevin Mayaka Tutorial Fellow in Information Systems and Computing BCA., Perivar University, India MSc., Bharathidsan University, India PhD., in Progress Kibabii University	2009	Moracha, Helekiah Tutorial Fellow in Agriculture BSc., University of Eastern Africa, Baraton MSc., Jomo Kenyatta University of Agriculture and Technology PhD., in progress, Jomo Kenyatta University of Agriculture and Technology	1993
Metto, Elizabeth Lecturer in Education BEd., Moi University MEd., University of Eastern Africa, Baraton PhD., University of Eastern Africa, Baraton	2004	Mule, Amose Tutorial Fellow in Accounting BBA., University of Eastern Africa, Baraton MBA., Solusi University Zimbabwe PhD., in progress, Adventist International Institute of Advanced Studies, Philippines	2012
Metto Joseph Tutorial Fellow in Psychology BA., Bugema University, Uganda MA., Bugema University, Uganda	2010	Murrey, Everlyne Graduate Assistant in Agriculture BSc., University of Eastern Africa, Baraton MSc., in progress, University of Eldoret	2016
Misoi Alphonse Tutorial Fellow in Technology Diploma, Kenya Technical Training College BEd., Moi University MP., Moi University	2019	Musema, Lily Tutorial Fellow in Development Studies BA., University of Eastern Africa, Baraton MA., Bugema University, Uganda PhD., in Progress, Moi University	2011
Misoi Meshack Senior Lecturer in Management BSc., Moi University MBA., Catholic University of Eastern Africa PhD., Jomo Kenyatta University of Agriculture and Technology	2020	Mutai, Paul Lecturer in Agriculture Diploma, Egerton University BSc., University of Eldoret MSc., University of Eldoret PhD., University of Eldoret	2019
Mitaki, Ruth Tutorial Fellow in Chemistry BSc., Periyar University, India MSc., Periyar University, India PhD., in progress, Masinde Muliro University	2014	Mutua, James Senior Lecturer in Theology BA., University of Eastern Africa, Baraton MDiv., Andrews University PhD., Andrews University	2016
Mlughu, Mwawana John Graduate Assistant in Clinical Medicine MSc., in progress, Kirinyaga University Bachelor of Clinical Medicine., Mt. Kenya University Diploma in Clinical Medicine., KMTCC	2025	Mwangi, Petronila Senior Lecturer in Education BSc., University of Eastern Africa, Baraton PGDE., University of Eastern Africa, Baraton MEd., University of Eastern Africa, Baraton PhD., University of Eastern Africa, Baraton	2005

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Mwita, Miriam Professor of Kiswahili B.A., University of Nairobi PGDE, University of Eastern Africa, Baraton M.A., University of Nairobi DPhil., Moi University	1992	Obaga, Juliet Laboratory Technician Diploma, Nyanchwa Adventist College	2005
Ndiema, Franklin Kwemai Clinical Instructor in Nursing BSc., University of Eastern Africa, Baraton MSc., in progress, University of Eastern Africa, Baraton	2022	Ochuodho, Harrison Tutorial Fellow in Biology BSc., University of Eastern Africa, Baraton MSc., University of Eastern Africa, Baraton	2015
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Okong'o Robert Tutorial Fellow in Mathematics BSc., Kenyatta University MSc., Kenyatta University PhD., in progress, University of Eldoret	2023	Otinga, Oteng'o Antony Lecturer in Biology BSc., University of Eastern Africa, Baraton MSc., Maseno University PhD., Chosun University	2011
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Omari Dickson Tutorial Fellow in Information Systems and Computing BSc., Madurai Kamarai University, India MSc., Madurai Kamarai University, India PhD., in progress, Kibabii University	2018	Rono, Elizeba Tutorial Fellow in Nursing BSc., University of Eastern Africa, Baraton MSc., Loma Linda University	2018
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Omari, Peter Lecturer in History BA., University of Eastern Africa, Baraton MEd., University of Eastern Africa, Baraton PhD., in progress, University of Eastern Africa, Baraton	2010	Rotich, Justus Laboratory Assistant in Physics BSc., Moi University MSc., in progress, Kaimosi Friends University	2018
Ombati, Reuben Gwako Laboratory Assistant in Technology BST., University of Eastern Africa, Baraton	2022	Sande, Ebrahim Tutorial Fellow in Chemistry BSc., University of Eastern Africa, Baraton MSc., Masinde Muliro University PhD., in progress, Masinde Muliro University	2021
Omondi, Richard Tutorial Fellow in Management BCom., Kenyatta University	2011	Sang', Monicah Lecturer in Office Administration BBA., University of Eastern Africa, Baraton MBA., University of Eastern Africa, Baraton PhD., Adventist International Institute of Advanced Studies, Philippines	2011

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Tanui Hezekiah Tutorial Fellow in Accounting and Finance BBA, Bugema University CPA (K), KASNEB MBA, Bugema University PhD., in progress, University of Eastern Africa, Baraton	2019	Wakoli, Albert Lecturer in Foods, Nutrition and Dietetics BSc., Egerton University MPhil., Moi University	2012
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