# BULLETIN 2012 - 2016

UNIVERSITY OF EASTERN AFRICA, BARATON P.O. Box 2500, 30100 Eldoret KENYA

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# 2012

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#### UNIVERSITY OF EASTERN AFRICA, BARATON ACADEMIC CALENDAR 2012-2014

### 2012/13 ACADEMIC YEAR FIRST TRIMESTER 2012/2013

THIST THINKESTER 2012/	_0.5
New students arrive	Sep 4, 2012
<ul> <li>Orientation and payment of fees</li> </ul>	Sep 5 - 11
Registration	Sep 12 - 14
Classes begin	Sep 17
Late registration fee in effect	Sep 17
• Last day to enter class	Sep 21
<ul> <li>Last day to Add and Drop a course</li> </ul>	
without entry on permanent	
academic record	Sep 21
Last day to change from audit to credit	Sep 21
Heritage week	Sep 22-28
Week of Spiritual Emphasis	Oct 7 - 13
<ul> <li>Last day to drop a course with "W"</li> </ul>	Oct 12
<ul> <li>National Holiday (Heroes Day)</li> </ul>	Oct 20
• End of Trimester Senate	Nov 14
National Holiday (Jamhuri Day)	Dec 12
Trimester Examination	Dec 9 - 18
Trimester Break	Dec 19 -
	Jan 6, 2013

#### **SECOND TRIMESTER 2012/2013**

Registration	Jan 2 - 4, 2013
Classes begin	Jan 7
Late registration fee in effect	Jan 7
• Last day to Add and Drop a course	
without entry on permanent	
academic record	Jan I I
• Last day to enter class	Jan I I
• Last day to change from Audit to Credit	Jan I I
Week of Spiritual Emphasis (WOSE)	Jan 27 - Feb 2
• Last day to change from "W"	Feb I
• Last day to change from Credit to Audit	Feb I
<ul> <li>Last day to Submit Final Exams</li> </ul>	Feb 8
Kenya National General Elections Break	Mar I - Mar 8
• End- of- Trimester Senate	Mar 13
Trimester Examination	Mar 31 - Apr 9
Trimester Break	Apr 10 - Apr 16

#### THIRD TRIMESTER 2012/2013

THIRD TRIMESTER 2012	2015
Registration	Apr 17-19, 2013
Classes begin	Apr 22
<ul> <li>Late registration fee in effect</li> </ul>	Apr 22
<ul> <li>Last day to enter class</li> </ul>	Apr 26
<ul> <li>Last day to Add and Drop a course</li> </ul>	
without entry on permanent	
academic record	Apr 26
<ul> <li>last day to change from audit to credit</li> </ul>	Apr 26
<ul> <li>Public Holiday ( Labour Day)</li> </ul>	May I
<ul> <li>Week of Spiritual Emphasis</li> </ul>	May 12 - 18
<ul> <li>Last day to drop a course with "W"</li> </ul>	May 17
<ul> <li>Last day to change from credit to audit</li> </ul>	May 17
<ul> <li>National Holiday (Madaraka Day)</li> </ul>	Jun I
<ul> <li>End- of -Trimester Senate</li> </ul>	Jun 19
<ul> <li>Trimester Examinations</li> </ul>	Jul 14 - 23
Trimester Break	Jul 24 - Sep 15
<ul> <li>Graduation</li> </ul>	Aug 16 - 18

## 2013/2014 ACADEMIC YEAR FIRST TRIMESTER 2013/2014

FIRST TRIMESTER 2013/2014							
New students arrive	Sep 3, 2013						
<ul> <li>Orientation and payment of fees</li> </ul>	Sep 4 - 10						
Registration	Sep 11 - 13						
Classes begin	Sep 16						
Late registration fee in effect	Sep 16						
Last day to enter class	Sep 20						
<ul> <li>Last day to Add and Drop a course</li> </ul>							
without entry on permanent							
academic record	Sep 20						
<ul> <li>Last day to change from Audit to Credit</li> </ul>	Sep 20						
Heritage week	Sep 22-28						
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Oct 6 - 12						
<ul> <li>Last day to drop a course with "W"</li> </ul>	Oct I I						
<ul> <li>Last day to change from credit to audit</li> </ul>	Oct I I						
<ul> <li>National Holiday (Heroes Day)</li> </ul>	Oct 20						
<ul> <li>End- of -Trimester Senate</li> </ul>	Nov 20						
<ul> <li>National Holiday (Jamhuri Day)</li> </ul>	Dec 12						
Trimester Examination	Dec 8 - 17						
Trimester Break	Dec 18 -						
	lan 5, 2014						

#### **SECOND TRIMESTER 2013/2014**

	•
Registration	Jan 8 - 10, 2014
Classes begin	Jan 13
Late registration fee in effect	Jan I 3
• Last day to enter class	Jan 17
<ul> <li>Last day to Add and Drop a course</li> </ul>	
without entry on permanent	
academic record	Jan 17
• Last day to change from Audit to Credit	Jan 17
Week of Spiritual Emphasis	Feb 2 - 8
• Last day to change from "W"	Feb 7
• Last day to change from Credit to Audit	Feb 7
• End- of -Trimester Senate	Mar 19
Trimester Examination	Apr 6 - 15
Trimester Break	Apr 16 - 22

#### THIRD TRIMESTER 2013/2014

•	
Registration	Apr 23-25, 201
Classes begin	Apr 28
• Late registration fee in effect	Apr 28
Public Holiday ( Labour Day)	May I
• Last day to enter class	May 2
• Last day to Add and Drop a course	,
without entry on permanent t	
academic record	May 2
• last day to change from audit to credit	May 2
Week of Spiritual Emphasis	May 18 - 24
• Last day to drop a course with "W"	May 23
• Last day to change from credit to audit	May 23
National Holiday ( Madaraka Day)	Jun I
• End- of -Trimester Senate	Jul 2
Trimester Examinations	Jul 20 - 29
Trimester Break	Jul 30 - Sep 9
Graduation	Aug 15 - 17

## 2014/2015 ACADEMIC YEAR FIRST TRIMESTER 2014/2015

•	
<ul> <li>New students arrive</li> </ul>	Sep 2
<ul> <li>Orientation and payment of fees</li> </ul>	Sep 3 - 9
<ul> <li>Registration</li> </ul>	Sep 10 - 12
Classes begin	Sep 15
Late registration fee in effect	Sep 15
• Last day to enter class	Sep 17
<ul> <li>Last day to add and drop a course</li> </ul>	
without entry on permanent	
academic records	Sep 17
<ul> <li>Last day to change from audit to credit</li> </ul>	Sep 17
Heritage week	Sep 21-27
Week of Spiritual Emphasis	Oct 5 - 11
<ul> <li>Last day to drop a course with a "W"</li> </ul>	Oct 10
<ul> <li>Last day to change from credit to audit</li> </ul>	Oct 10
National Holiday (Heroes Day)	Oct 20
• End- of- Trimester Senate	Nov 20
Trimester Examination	Dec 7 - 16
<ul> <li>National Holiday (Jamhuri Day)</li> </ul>	Dec 12
• Trimester Break	Dec 19 -
	Jan 6, 2015

#### **SECOND TRIMESTER 2014/2015**

Registration	Jan 7 - 9, 2015
• Classes begin	Jan I 2
Late registration fee in effect	Jan 12
• Last day to enter class	Jan I 6
<ul> <li>Last day to add and drop a course</li> </ul>	
without entry on permanent	
academic record	Jan 16
<ul> <li>Last day to change from audit to credit</li> </ul>	Jan 16
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Feb I - 7
<ul> <li>Last day to drop a course with a "W"</li> </ul>	Feb 6
<ul> <li>Last day to change from credit to audit</li> </ul>	Feb 6
• End- of- Trimester Senate	Mar 18
• Trimester Examinations	Apr 5 - 14
Trimester Break	Apr 15 - 21

#### THIRD TRIMESTER 2014/2015

•	
Registration	Apr 22-24, 2015
Classes begin	Apr 27
Late registration fee in effect	Apr 27
• Last day to enter class	Apr 30
<ul> <li>Last day to add and drop a course</li> </ul>	
without entry on permanent	
academic records	Apr 30
<ul> <li>Last day to change from audit to credit</li> </ul>	Apr 30
Public Holiday (Labour Day)	May I
<ul> <li>Week of Spiritual Emphasis</li> </ul>	May 17 - 23
<ul> <li>Last day to drop a course with "W"</li> </ul>	May 22
<ul> <li>Last day to change from credit to audit</li> </ul>	May 22
<ul> <li>National Holiday (Madaraka Day)</li> </ul>	Jun I
• End- of- Trimester Senate	Jul I
Trimester Examinations	Jul 19 - 28
• Trimester Break	Jul 29 - Sep 15
Graduation	Aug 14 - 16

# 2015/2016 ACADEMIC YEAR FIRST TRIMESTER 2015/2016

FIRST TRIMESTER 2015/2016	
<ul> <li>New students arrive</li> </ul>	Sep 1, 2015
<ul> <li>Orientation and payment of fees</li> </ul>	Sep 2 - 8
Registration	Sep 9 - 11
Classes begin	Sep 14
Late registration fee in effect	Sep 14
• Last day to enter class	Sep 18
<ul> <li>Last day to add and drop a course</li> </ul>	
without entry on permanent	
academic records	Sep 18
<ul> <li>Last day to change from audit to credit</li> </ul>	Sep 18
Heritage week	Sep 20-26
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Oct 4 - 10
<ul> <li>Last day to drop a course with a "W"</li> </ul>	Oct 9
<ul> <li>Last day to change from credit to audit</li> </ul>	Oct 9
<ul> <li>National Holiday (Heroes Day)</li> </ul>	Oct 20
• End- of- Trimester Senate	Nov 18
Trimester Examination	Dec 6 - 15
<ul> <li>National Holiday (Jamhuri Day)</li> </ul>	Dec 12
• Trimester Break	Dec 16 -
	Jan 5, 2016

#### **SECOND TRIMESTER 2015/2016**

Registration	Jan 6 - 8, 2016
Classes begin	Jan II
Late registration fee in effect	Jan II
• Last day to enter class	Jan 15
<ul> <li>Last day to add and drop a course</li> </ul>	
without entry on permanent	
academic record	Jan 15
<ul> <li>Last day to change from audit to credit</li> </ul>	Jan 15
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Jan 31 - Feb 6
<ul> <li>Last day to drop a course with a "W"</li> </ul>	Feb 5
<ul> <li>Last day to change from credit to audit</li> </ul>	Feb 5
• End- of- Trimester Senate	Mar 17
Trimester Examinations	Apr 3 - 12
• Trimester Break	Apr 13 - 19

#### THIRD TRIMESTER 2015/2016

Registration	Apr 20-22, 2016
Classes begin	Apr 25
• Late registration fee in effect	Apr 25
• Last day to enter class	Apr 29
Last day to add and drop a course	
without entry on permanent	
academic records	Apr 29
<ul> <li>Last day to change from audit to credit</li> </ul>	Apr 29
Public Holiday (Labour Day)	May I
Week of Spiritual Emphasis	May 15 - 21
<ul> <li>Last day to drop a course with "W"</li> </ul>	May 20
<ul> <li>Last day to change from credit to audit</li> </ul>	May 20
National Holiday (Madaraka Day)	Jun I
• End- of- Trimester Senate	Jun 29
Trimester Examinations	Jul 17 - 26
Trimester Break	Jul 27 - Sep 13
Graduation	Aug 12 - 14

## 2016/2017 ACADEMIC YEAR FIRST TRIMESTER 2016/2017

TINDI TRIMEDIER 2010/	2017
<ul> <li>New students arrive</li> </ul>	Sept 7, 2016
<ul> <li>Orientation and payment of fees</li> </ul>	Sep 8 – 13
Registration	Sep 14 – 16
• Classes begin	Sep 19
Late registration fee in effect	Sep 19
• Last day to Add and Drop a course without	
entry on permanent academic record	Sep 21
• Last day to enter class	Sep 21
<ul> <li>Last day to change from Audit to Credit</li> </ul>	Sep 21
Heritage Week	Sep 20-26
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Oct 2-8
<ul> <li>Last day to change from "W"</li> </ul>	Oct 7
• Last day to change from Credit to Audit	Oct 7
• End- of- Trimester Senate	Nov 23
Trimester Examination	Dec 5-13
National Holiday (Jamhuri Day)	Dec 12
• Trimester Break	Dec 16-Jan 4, 2017

#### SECOND TRIMESTER 2016/2017

	7 = 0
Registration	Jan 4 – 6, 2013
Classes begin	Jan 9
Late registration fee in effect	Jan 9
• Last day to Add and Drop a course without	
entry on permanent academic record	Jan 13
• Last day to enter class	Jan 13
• Last day to change from Audit to Credit	Jan 13
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Feb 5-11
• Last day to change from "W"	Feb 8
• Last day to change from Credit to Audit	Feb 8
• End- of- Trimester Senate	Mar15
• Trimester Examination	April 3-11
• Trimester Break	April 12 - 18

#### THIRD TRIMESTER 2016/2017

THIRD TRIMESTER 2010/2017	
<ul> <li>Registration</li> </ul>	April 19 - 21, 2013
Classes begin	April 24
Late registration fee in effect	April 24
• Last day to enter class	April 28
• Last day to Add and Drop a course without	
entry on permanent t academic record	April 28
<ul> <li>last day to change from audit to credit</li> </ul>	April 28
Public Holiday ( Labour Day)	May I
Week of Spiritual Emphasis	May 14 – 20
<ul> <li>Last day to drop a course with "W"</li> </ul>	May 19
Last day to change from credit to audit	May 19
<ul> <li>National Holiday (Madaraka Day)</li> </ul>	June I
• End- of -Trimester Senate	June 5
<ul> <li>Trimester Examinations</li> </ul>	July 17– 25
Trimester Break	July 26 – Sep 12
<ul> <li>Graduation</li> </ul>	Aug 11 – 13

## 2017/2018 ACADEMIC YEAR FIRST TRIMESTER 2017/2018

FIRST TRIMESTER 2017/	2016
<ul> <li>New students arrive</li> </ul>	Sept 6, 2017
<ul> <li>Orientation and payment of fees</li> </ul>	Sep 7 – 12
Registration	Sep 13 – 15
Classes begin	Sep 18
Late registration fee in effect	Sep 18
• Last day to Add and Drop a course without	
entry on permanent academic record	Sep 20
• Last day to enter class	Sep 20
<ul> <li>Last day to change from Audit to Credit</li> </ul>	Sep 20
Heritage Week	Sep 17-23
<ul> <li>Week of Spiritual Emphasis</li> </ul>	Oct I-7
<ul> <li>Last day to change from "W"</li> </ul>	Oct 9
<ul> <li>Last day to change from Credit to Audit</li> </ul>	Oct 9
• End- of- Trimester Senate	Nov 24
Trimester Examination	Dec 4-12
<ul> <li>National Holiday (Jamhuri Day)</li> </ul>	Dec 12
Trimester Break	Dec 15-Jan 2, 2017

#### MESSAGE FROM THE VICE-CHANCELLOR

t gives me pleasure to welcome you to the University of Eastern Africa, Baraton (UEAB), the first private University to be Chartered by the government of the Republic of Kenya in 1991.

Being a Seventh-day Adventist Church owned institution, UEAB subscribes to the Seventh-day Adventist Church belief in wholistic Christian education that develops the mental, physical, social and spiritual spheres of the student (head, hand and heart) in readiness for effective service to God and humanity. It is for this reason that the UEAB curriculum is broad-based -encompassing communication and presentation skills, research, ethics, technology, religion, health principles, physical activities, psychology and the arts among others. At the end of the degree program, therefore, a UEAB graduate will be an all rounder who will above all gain a high level of integrity and expertise in their chosen field of study; ready to tackle the challenges and demands that come with the fast changing job market. In addition to this, the graduate will be able to co-exist with people of all races and cultures because UEAB has remained an internationally acclaimed institution drawing students and faculty from over 20 countries of Africa, Asia, Europe and America; which provides our students, faculty and staff with a great opportunity for international cultural exchange, fusion of ideas and appreciation of diversity.



Prof. Miriam B. Mwita
Vice-Chancellor

The teacher-student ratio of about 1:16 permits a closer and more meaningful interaction between the faculty and students. The faculty are able to support students' learning experience to ensure that they attain their full potential. UEAB's location and facilities also ensure a safe, secure and serene learning environment for the students.

As we foster academic excellence and the expansion of knowledge, we seek to produce men and women with moral virtues and high emotional intelligence, which are key ingredients for success. For the new students, the values and quality of education you will receive here will forever bless you and add value to those you are going to serve after completion of your studies.

It is my hope that you will find this publication helpful in your course selections for the next four years. I wish you an enjoyable experience during your studies and stay at UEAB.

#### I. INTRODUCTION

#### I.I HISTORY

The beginning of the Seventh-day Adventist education in East Africa dates back to the establishment of the Seventhday Adventist Church in the region. The earliest church was established in Tanzania in 1903, followed by more Missionary work around Lake Victoria in Kenya in 1906. In 1927 Missionary work started in Uganda and in 1928 what is now known as Kamagambo Adventist College was established near Kisii town. Many primary and secondary schools have since been established. In addition, the church established several training institutions, but none of them had offered bachelor's degree programmes. For this reason, students desiring to pursue higher education in an Adventist institution before 1980 had to go outside Eastern Africa. During the 1970's, the Middle East College in Beirut, Lebanon, served many such students. Thus there was a great need for a full fledged university in Eastern Africa. Consequently, in October 1978, the Afro-Mideast Division of Seventh-day Adventists took an action to establish such an institution in Kenya on December 21, 1978. The Kenya Government allotted 339 acres of the then Baraton Animal Husbandry Research Station in Nandi District to the Seventh-day Adventist Church for the purpose of founding what is now known as the University of Eastern Africa, Baraton. Classes began in September, 1979, in the temporary farm structures. Some of these structures have since been replaced with modern buildings.

#### 1.2 GOVERNANCE

The University is owned and operated by the Seventh Day Adventist Church. The University Chancellor is the president of the Church in East-Central Africa Division of the S.D.A Church. It is governed by University Council, which does its work through the Administrative Board, chaired by the Vice-Chancellor, who is the Chief Executive Officer of the University.

#### 1.3 SUPPORT

The University of Eastern Africa, Baraton, is supported by 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 programmes.

#### 1.4 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, Nairobi;
- 2. Adventist University of Central Africa, Rwanda;
- 3. Adventist University of Lukanga, DRC, Kinshasa;
- 4. Adventist University of the Philippines, Philippines;
- 5. Andrews University, United States of America;
- 6. Avondale College, Australia;
- 7. Babcock University, Nigeria;
- 8. Bugema University, Uganda;
- 9. Canadian Union College, Canada;
- 10. Ethiopia Adventist College, Ethiopia;
- 11. Helderberg College, South Africa;
- 12. Japan Missionary College, Japan;
- 13. Loma Linda University, United States of America;
- 14. Malawi Adventist University, Malawi;
- 15. Newbold College, England;
- 16. Oakwood University, United States of America;
- 17. Sahmuook University, South Korea;
- 18. Solusi University, Zimbabwe;
- 19. Seminaire Adventiste du Saleve, France;
- 20. Spicer Memorial College, India;
- 21. University of Arusha, Tanzania;
- 22. Valley View University, Ghana.

#### 1.5 ACCREDITATION

The University of Eastern Africa, Baraton, is a fully accredited institution of higher learning accredited by 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.

#### 1.6 PHILOSOPHY

The University of Eastern Africa, Baraton (UEAB) operates on the Seventh-day Adventist world view 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. This leads students into self-actualization and to discover and understand the truth through critical thinking.

#### 1.7 MISSION

UEAB provides and advances wholistic quality Christian education which develops men and women to be earnest seekers of truth and be adequately equipped with appropriate knowledge, skills and attitudes for service to God and humanity.

#### 1.8 VISION

UEAB is to be a leading centre of excellence in higher education and research producing world-class professionals equipped with moral virtues.

#### 1.9 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.

#### 1.10 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 programmes aimed at developing educated citizens who can meet the needs of their respective communities and the Seventh-day Adventist church.

#### I.II OBJECTIVES

The foregoing statements give rise to the following objectives:

- Provide a balanced educational programme 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:
  - Providing appropriate religious instruction and integrating faith and learning in the classroom.
  - Providing a variety of religious services and activities.
  - Fostering an atmosphere where Christian principles find practical expression in all relationships.
- 3. Help the student to strive for mental excellence by:
  - Providing qualified faculty to guide the student in the pursuit of knowledge.
  - Developing intellectual curiosity, engaging in reflective thought, and maintaining the desire to reach the highest level of professional growth.
  - Refining mental abilities to enhance individuality and selfreliance.
- 4. Assist the student to achieve and maintain physical health by:
  - Guiding the student to attain a better understanding of healthful living.
  - Helping the student to appreciate the dignity of labour and recognize the value of manual work.
  - Providing appropriate sports activities and encouraging the adoption of a personal exercise programme.
- Providing healthful food and living quarters.
- 5. Prepare the student to become a useful member of society by:
  - Promoting understanding and acceptance of persons from various backgrounds in the university community.
  - Helping to develop social skills that make for harmonious relationships with other people.
  - Emphasizing selfless service as the goal of life.
  - Encouraging the application of knowledge within the students' societal context.
- 6. Equip the student for:
- An active role in the mission of the SDA Church.
- Service-centered vocations and professions which contribute to the betterment of society.

 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.

#### 1.12 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. This is returned to the University along with transcripts, certificates, diplomas, references and other relevant documents as may be required by the Office of Admissions and Records to show academic aptness. Applications can also be done online. 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 will be considered for admission.

#### 1.13 ENTRANCE REQUIREMENTS

#### 1.13.1 Direct Entry

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

are:

- i. Kenya Certificate of Secondary Education (KCSE)
  - a) A minimum mean grade of C+ (plus) or its equivalent.
  - b) Meet the entrance requirements for the preferred area of study.
- ii. Advanced Certificate of Secondary Education (A-Level Certificate):
  - a) A minimum of 2 principal passes and two subsidiary passes.
  - b) Meet the consideration for the area of study.
- iii. Applicants with a Diploma Certificate from recognized institutions and with a mean grade of C (plain) at KCSE or its equivalent may be admitted into undergraduate programmes.

#### 1.13.2 Pre-University Programme

Candidates applying for admission to the University of Eastern Africa, Baraton through the Pre-University programme must meet the following requirements:

- i. Have a minimum mean grade of C- (minus) in the Kenya Certificate of Secondary Education (KCSE) or its equivalent.
- ii. Do a minimum of 29 credits of Pre-University Programme.
- iii. Attain a minimum cumulative GPA of 2.33. In addition they should obtain a grade of C- (minus) and above in the area of study they wish to pursue.

#### 1.13.3 Mature Age Entry

The University of Eastern Africa, Baraton, extends limited opportunities to adults who desire to pursue undergraduate programmes leading to a baccalaureate degree but lack the required credentials for direct admission.

The mature age programme is deemed necessary because it gives an adult individual an opportunity to improve his or her professional skills for quality service delivery.

Candidates applying for admission through Mature Age Entrance must meet the following requirements:

- i. Have a Secondary School certificate.
- ii. Be at least 25 years of age.
- iii. Pass the Mature Age Entrance Examination administered by the University of Eastern Africa, Baraton.
- iv. Meet other criteria that may be stipulated by the University.

Admission under mature age entry qualification is on provisional standing for one year.

#### 1.13.4 Admission of International Students

The University welcomes students from different countries on its campus. International students must meet all admission requirements for the programmes they wish to enter. Official transcripts should be mailed to the Registrar of Admissions and Records. 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 may be obtained from the Registrar of Admissions and Records, University of Eastern Africa, Baraton, P.O. BOX 2500-30100, Eldoret, Kenya, or the official University website (www.ueab.ac.ke).

The offer of admission is valid for one year, after which reapplication is required.

#### 1.13.5 English Proficiency Requirement

Since English is the language of instruction at UEAB, proof of proficiency in it is required of all applicants. In other words, students whose medium of instruction at secondary school was not English language are required to sit for the Test of English as a Foreign Language (TOEFL) to prove their proficiency, and to submit the score to the UEAB Registrar. The minimum acceptable score in TOEFL is 550. Applications and information regarding TOEFL may be obtained from: TOEFL Services, CN6151, Princeton, New Jersey, 08541-6151, U.S.A., E-mail: toefl@ets.org. TOEFL Website is http://www.toefl.org and the ETS Website is http://www.ets.org or from the United States of American Embassy in one's country of residence.

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

#### 1.13.6 Visiting Students

The University of Eastern Africa, Baraton, welcomes local and international students who may wish to take courses on short term basis (one or two trimesters) 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 behaviour, conduct and character of students. More information about visiting students may be obtained from the Registrar of Admissions and Records or the University website (www.ueab. ac.ke).

#### 1.13.7 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. However, the University will retain the certified copy in the student's permanent file.

#### 1.13.8 Categories of Special Students

A special student is one who is a regular student of UEAB. The following categories of special students are identified:

- Persons, who qualify for regular standing for university programmes but do not wish to register for a full degree programme, but wish to take some courses as in audit. Such persons should complete application forms as required for regular students.
- ii. 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.
- iii. Persons who already posses 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.
- iv. 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 trimester. 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.

Students in categories under i, ii, and iii 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 programme if they so wish.

#### 2. ACADEMIC INFORMATION

#### 2.1 REGISTRATION

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 is as follows:

- I. Obtain your password at the Registrar's Office (new students and continuing students who have ID and password problems).
- 2. Go to the library for ID photograph. (new or continuing students who have lost their ID)
- 3. Go to the student finance accountant for the activation of your student account (new students only).
- 4. Go to your advisor or the head of department for advice on course selection.
- 5. Go to any of the designated online registration stations to make course selections.
- Log on to your window using your ID number and Password then make selection as follows: select trimester, residence (and room number for boarders), and Sabbath school class.
- 7. Carefully select courses in accordance to the course checklist to avoid changes in selection and then close registration by clicking on the button "Close Registration". All approvals will be indicated on your end. Any unapproved selection should be resolved with the designated approval personnel e.g. residence with the Residence Dean, Course with your Major Advisor etc.
- 8. Go to the medical centre to register -Main Campus. (New students only)
- 9. Your trimester registration is complete when all the approvals read "yes"
- 10. Confirm the courses you have registered for on your window. You are required to print and retain a hard copy to confirm registration completion.
- 11. If you are not financially cleared, contact the student finance accountant for clearance.

**Note:** if you have any problem, contact your Academic Advisor and Registrar.

You may now go to the Registrar's Office for an ID sticker.

#### 2.1.1 Late Registration

A student who fails to register during the stipulated time must obtain permission from the Registrar in order to register later. A late registration fee will be charged for each day late. No student will be permitted to register after the date published in the Academic Calendar as the "Last day to enter any class."

#### 2.1.2 Changes in Registration

- i. A student who wishes to make changes in course selection after completing registration will seek assistance at registrar's office. A fee may be charged for changes. Registration will be re-opened for the same student, who will be required to go through the registration process for course selection at the risk of finding some classes already full.
- ii. When courses are dropped after the last date to enter any class but before the published "Last day to drop a class with W", a W will be recorded.
- iii. If any course is dropped after this date (ii. above), an F is recorded. The procedure for dropping a course is as follows:
  - a) Obtain a Drop/Add Voucher from the Registrar's office or download from www.ueab.ac.ke
  - b) After the forms have been properly signed, return them to the Registrar's Office for processing.

#### Please note:

Courses cannot be added after the deadline to add courses, i.e. five instructional days from the date of registration.

Students who withdraw from any or all of the classes and from the boarding section during the trimester will receive some refunds on charges for tuition, room and board. For details, see 'Refunds' under Financial Information. Pg. 326

#### 2.2 ACADEMIC GENERAL INFORMATION

#### 2.2.1 Academic Advisors

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 is the principal academic advisor. The chairperson is also expected to assign (a) qualified teacher(s) to advice students. A student will also be assigned a second advisor if he/she is doing a double major or minor.

One of the functions of the academic advisor is to review the student's academic programme during each trimester and to tailor it for that student for the period he or she is expected to be at UEAB.

At the beginning of each trimester the student must see his/her advisor who will verify the courses on the student's check sheet to be taken for the trimester and advise accordingly. Students who do double majors are advised by both advisors of their respective programmes. Such students should obtain a form from the registrar's office for approval before the end of the second year.

#### 2.2.2 Curriculum Check List

A curriculum check list is a list of courses a student is required to take to graduate. The courses are listed under specific trimester and students are advised to take them in the sequence they appear unless advised otherwise by their academic advisors. Check lists are issued by respective departments.

#### 2.2.3 Academic Progress

- i. It shall be the responsibility of every student to check their grades/academic performance online as soon as the grades are released.
- ii. Any student with a failing grade must retake the course the next time it is offered.
- iii. Students should process their completion letters of their degree studies immediately after the results of the courses of their last trimester are out.
- iv. Students should apply for graduation at least two trimesters before the date of graduation using application forms from the registrar's office. Graduation in absentia is not allowed except by senate approval on request under special circumstances.

#### 2.2.4 Academic Dishonesty

Academic dishonesty includes such things as plagiarism, forging signatures, using notes or textbook during quizzes or examinations when not authorized, copying or looking at the test or paper of another student (formal or take-home examination), aiding another student, use of mobile phone or any electronic information retrieval device, or any other act that may be interpreted as constituting dishonesty. Any academic dishonesty may result in a failing grade for the course, dismissal from the University, or any other disciplinary action deemed appropriate by the University.

#### 2.2.5 Procedure for Reporting Dishonesty

#### i. Final Examinations:

Dishonesty in final examination shall be brought to the attention of the chief invigilator of the examination. Clear evidence must be submitted to the Academic Standards Committee through the office of the registrar for action and recommendation. 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, Dean of Students, the Deputy Vice-Chancellor and sponsor/parent. In case of discontinuation, the recommendations of the ASC are made to the Senate, through the Administrative Board.

#### ii. Continuous Assessment:

Dishonesty in continuous assessment shall be handled by the instructor and be brought to attention of the Department Chairperson. Any decision made by these two shall be conveyed to the student by the Department Chairperson.

#### 2.2.6 Academic Probation

- i. Any student whose cumulative GPA falls below 2.00 at the end of a trimester is placed on academic probation. If the student's cumulative GPA is still below 2.00 after two more consecutive trimesters, he/she becomes subject to suspension from the University for Academic Reasons for two trimesters.
- ii. A student who is on academic probation should normally register for 9 credits in a regular trimester and six (6) credits for school-based/part-time students. 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.

#### 2.2.7 Academic Suspension

- i. A student who has been suspended for academic reasons may reapply after two trimesters have elapsed. However, he/she may reapply after one trimester of suspension if his/her GPA was 2.50 in each of the two consecutive trimesters prior to suspension. A student who is readmitted will be placed on probation and advised to limit his/her corecurricular activities.
- ii. If a student is suspended two times for academic reasons, he/she will be advised to change his/her major. If the same student is placed on academic suspension in the new programme, he/she will be subject to dismissal.

#### 2.2.8 Academic Dismissal

Students become subject to academic dismissal in one of the following ways:

- i. By earning during a given trimester a Grade Point Average of 0.5 or less
- ii. By failure to reach the Grade Point Average of 2.0 for two successive trimesters
- iii. By displaying a high degree of irresponsibility in matters such as class attendance and home work assignments among others.

#### 2.2.9 Academic Grievances

#### i. 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, Department Chairperson and Dean of the School before the matter is taken 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 in (ii) below. The complaint must be made within the first two weeks of the trimester.

#### ii. Remarking a Final Examination

A request for remarking final examination must be made within two weeks of releasing the grade or within the first two weeks of the next trimester. It shall be approved by Academic Standards Committee.

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 examination shall be as follows:

- i. A student shall complete remark of examination form issued by the registrar's office. The form shall be signed by the Department Chairperson, the School Dean and the Deputy Vice Chancellor in that order. After the student has obtained all the required signatures he/she shall return the completed form to the registrar's office.
- ii. The Registrar shall present the request to the Academic Standards Committee for approval.
- iii. Upon approval by the Academic Standards Committee, the Deputy Vice Chancellor, Academics, the School Dean and the Department Chairperson shall identify a competent person(s) to do the re-mark. For practical re-assessment a minimum of two examiners shall be appointed to re-assess the student.
- iv. The student shall pay the amount required for the remark before the remark is done.
- v. The marks of the remark shall be computed together with that of continuous assessment to arrive at the final grade to be awarded to the student as per the University Policy.
- vi. The marks of the remarked work and the final grade awarded to the student as stipulated in (vii) shall be presented to Academic Standards Committee for ratification.
- vii. The final grade resulting from the remark shall be the grade to be awarded to the student.

#### 2.2.10 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 the subsequent Bulletin if the student chooses it. 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 the extra hours from the relevant area(s) of his/her choice, in consultation with the academic advisors.

### 2.2.11 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, and then communicated to the University community, have the same force as the regulations published in the University Bulletin.

#### 2.2.12 Correspondence Courses

A student may request to take up to six (6) trimester credit hours from a recognized correspondence school. Griggs International Academy at the General Conference of the Seventh-day Adventist Church, Maryland, USA and its branches, offer 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 shall 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 enrol in a correspondence course. Upper-division courses may not be met by correspondence courses and it is recommended that juniors and seniors do not do correspondence work unless the grades for such courses can be turned in to the Registrar's Office by the end of March prior to graduation.

The procedure for requesting credit for correspondence courses is as follows:

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

- iii. Complete the form and obtain the required signatures in the order they appear.
- iv. Return the completed form to the Registrar's Office.
- v. Wait for a written approval from the Academic Standards Committee before you apply for any correspondence course.
- vi. Once approval is given, it is solely your responsibility to request the school offering the correspondence course to forward the grade directly to the Registrar.
- vii. No correspondence grades less than C will be accepted.

#### 2.2.13 Modern Language Requirement

Students must meet the Modern Language Requirement by taking either French or Kiswahili in the general education requirements.

#### 2.3 EXAMINATIONS

#### 2.3.1 Final Examinations

The last two (2) weeks 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 50% of the final grade and continuous assessment carry the remaining 50%. No student will be permitted to write final examinations without an exam pass. All required fees must be settled one month before the end of a trimester.

#### 2.3.2 Sessions for Final Examinations

All final examinations are held in a specified venue. There are usually four examination periods per day:

- i. 07:00 am. 10:00 am.
- ii. 10:30 am. 01:30 pm.
- iii. 02:00 pm. 05:00 pm.
- iv. 07:00 pm. 10:00 pm.

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

**Note:** Extension centres examination sessions may vary as will be authorised by the Academic Standards Committee.

#### 2.3.3 Challenge Examinations

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. 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.

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.

Applications for Challenge Examinations must be approved by the Academic Standards Committee. The procedure for requesting a challenge examination is as follows:

- i. Check with the Department Chairperson to see if you are qualified to do the challenge examination.
- ii. Obtain a Challenge Examination form from the Registrar's Office.
- iii. Complete the form with all the signatures in the order they appear.
- iv. Return the completed form with all the required signatures to the Registrar's Office.
- v. The Registrar will present the request to the Academic Standards Committee for consideration.
- vi. A letter of approval or denial will be sent to the student by the registrar of admissions and records, 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.
- vii. If approved, the student should proceed to pay the challenge examination fee which is two thirds of the tuition for the course. This money must be fully paid before the exam is administered.
- viii. The examination will be administered and the grade will be sent on the appropriate forms by the Department Chairperson to the Registrar's Office.
- ix. The Challenge Examination grade must be presented to the Academic Standards Committee for approval before it is entered onto the student's permanent record.

#### 2.3.4 Grading System

The grading scale (in percentage and equivalent letter grade), which is a composite of 50% grade from continuous assessment and 50% grade from final examination, is as follows:

#### **Grading Scale for undergraduates**

Percentage	Grade	Point
92 - 100	Α	4.00
89 - 91	A-	3.67
85 - 88	B+	3.33
80 - 84	В	3.00 (Above Average)
75 - 79	B -	2.67
70 - 74	C+	2.33
65 - 69	C	2.00 (Average)
60 - 64	C-	1.67
50 - 59	D	1.00 (Below Average)
0 - 49	F	0.00 (Failure)

Other symbols which may appear on the grade report are as follows: AU, DG, IW, S, U, W, AW. These symbols are explained in subsequent pages of this bulletin.

#### 2.3.5 Degree Classification

UEAB uses Cum Laude System in classifying its degrees as follows:

Class	GPA
Summa Cum Laude	3.75- 4.00
Magna Cum Laude	3.50- 3.74
Cum Laude	3.00- 3.49
Pass	2 00- 2 99

The equivalent in the English System is as follows:

Class	GPA
First Class	3.67- 4.00
Second Class Upper	3.00- 3.66
Second Class Lower	2.67- 2.99
Pass	2.00- 2.66

#### 2.3.6 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 trimester. The instructor involved should obtain a change of grade form from the Registrar's Office. No grade change will be approved unless it involves a computation or clerical error on the part of the examiner. Grade changes are allowed for Incomplete and Deferred Grades. Before a grade change is made on the student's record, the form must be signed by the instructor, 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 deffered 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.

#### 2.3.7 AU - Auditing Courses

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 and Records. 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.

#### 2.3.8 DG - Deferred Grade

A DG is assigned in certain courses that are of such a nature that they may not be completed within one trimester and are so designated beforehand. A DG will be given each trimester until the project is completed and a final grade is assigned. Courses for which a DG is used normally run over two or three trimesters. 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 three trimesters, including the trimester the DG was first applied for, the DG shall be administratively turned to AW (Administrative Withdrawal) by the registrar. AW shall remain a permanent record in the transcript.

#### 2.3.9 Procedure to apply for 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. The form is obtained from the Registrar's Office and the completed form is returned to the Registrar's Office.

When the projects are completed, the final grades are then submitted by the instructor to the Registrar's Office for recording.

#### 2.3.10 IW - Incomplete Work

An Incomplete Work indicates that major work has not been completed because of illness or other unforeseeable circumstances, and not because of negligence, late work or low performance. An Incomplete Work is not automatically assigned but must be petitioned for in writing by the student prior to the final examination period, and requires the approval of the class instructor, the Department Chairperson, the Dean of the School, Registrar and the Deputy Vice Chancellor, Academics. The petitioner must designate what work is to be completed and the time limit which shall not be later than the end of the following trimester. An incomplete work not removed on time will result in a grade calculated using marks earned from the work already done out of the total marks of the course.

#### 2.3.11 Procedure to apply for an "IW"

It is the student's responsibility to complete the form from the Registrar's Office for an "IW" in triplicate for each "IW".

The completed forms with all the required signatures for approval are then returned to the Registrar's Office.

If the student does not return to the University the following trimester, he/she must petition the Academic Standards Committee for an extension. Failure to do so will result in calculating the grade as said before whereby the missing work is not considered.

When the incomplete work is finally done, the instructor computes the final grade and submits it to the Registrar's Office. It is the student's responsibility to check whether the new grade has been entered on his/her record.

#### 2.3.12 NG - No Grade

"NG"- No Grade is automatically assigned to a student at the time he/she registers for a course at the beginning of a trimester. The "NG" is removed at the end of the trimester when the course instructor submits a grade of a student to the registrar's office in a signed grade sheet. If by the end of a 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, the course instructor is required to assign the student an "F" grade in the submitted grade sheet. The registrar's office shall record an "F" grade for a student whose grade is missing in a grade sheet and for whom "W," "IW", "DG" or "AW" has not been entered.

#### 2.3.13 S/U - Satisfactory/Unsatisfactory Grade

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

#### 2.3.14 W - Official 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 assigned if a class is dropped. To apply for a "W" obtain forms from the Registrar's Office.

#### 2.3.15 AW - Administrative Withdrawal

"AW" is awarded when a student is suspended or expelled from the university.

#### 2.3.16 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 and transfer credits are not included. If a student repeats a course, the higher of the two grades obtained will be used to compute the GPA.

#### 2.3.17 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 "F" or "D" in a course taken for a major, minor or specialization must repeat the course. No student will be allowed to graduate with a grade of "F" in any course required including general education requirement. 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.

Petition forms can be obtained from the Registrar's Office. The completed forms with required signatures must be returned to the registrar's office two months before the registration date of the trimester when the course to be repeated is intended to be taken to allow enough time to process the approval by the Academic Standards Committee. A student must not register to repeat a course until an approval is given in writing.

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 better grade will be used.

In a sequence type course, a student who earns an "F" or "W" for one trimester must repeat that course before being permitted to enrol 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 trimester. This applies to core courses and those in the major or minor areas of study. Otherwise, the student may register the subsequent trimester with a grade of D.

#### 2.3.18 Course Loads

#### Regular Students (Full-time):

The normal course load for regular students is 12-14 credit hours for a 14-week regular trimester.

#### **Part-time Students:**

Students who enroll for the school-based classes and those pursuing their study programmes through evening classes will be allowed to register for a maximum of 9 credits as follows;

i. School-based students

6-9 credits

ii. Evening classes students

6-9 credits

#### 2.3.19 **Overload**

#### Criteria for Overload;

- Up to 15 credits during regular trimester if Cumulative GPA is at least 3.00.
- ii. Up to 16 credits during regular trimester if Cumulative GPA is at least 3.50.

**Note:** Overload for students who meet criteria i or ii is automatically approved by the online system. Exceptions require the approval of the School Dean and Registrar.

- iii. Seniors who have completed 110 hours and have a GPA of 2.67 may be allowed to take up to 17 credits in a regular trimester if the remaining credits do not exceed 34 credits.
- iv. Credit hours for fieldwork courses which are taken before or after each trimester can be applied to the subsequent trimester without invoking student's overload requirement.

#### 2.3.20 Work and Study Load

A student will be asked to adjust the class load as follows:

Hours of work	Maximum credit hours
per week	allowed
10 - 20	14
21 - 30	10

#### 2.4 GRADUATION

#### 2.4.1 Request for Graduation

A request for graduation **must** be made on an official Graduation Application and Agreement form one calendar year before the expected date of graduation.

On this form the student will outline a programme of study for his/her final year showing that all requirements are met by the proposed graduation date. The outline must be approved by the student's Academic Advisor, Department Chairperson, his/her Dean of school and the Registrar and will be filed in the Registrar's Office. After this, no changes may be made without the approval of the Academic Advisor, Department Chairperson, Dean of School and Registrar.

#### 2.4.2 Requirements for Graduation

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

- i. A Core or Concentration.
- ii. Cognates: If specified in the requirements of the student's major department.
- iii. A Minor is required for Bachelor of Arts degrees unless exempted.
- iv. General requirements as outlined for the degree being sought.
- v. Electives: If, after having taken all specifically required classes, a student still has less than a minimum of 144 credit hours, elective courses are chosen from any area in consultation with the major advisor to fill out the minimum 144 credit hours.
- vi. All 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.
- vii. 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 programmes 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.
- viii. Must participate in the graduation exercise. Graduation Ceremony at UEAB includes the consecration, baccalaureate and commencement services in which all graduands are required to participate.

#### 2.4.3 Participation in Graduation Exercises

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

- i. Must have completed all relevant requirements for the degree;
- ii. 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;
- iii. Must have been given financial clearance by the Business Office;
- iv. Must have been given academic clearance by the Department, School, and Senate;
- v. Must have been cleared by the office of the Deputy Vice-Chancellor - Student Affairs and Services.
- vi. Must attain verification and clearance from the Registrar's Office and have his/her name included on the list of students cleared for graduation.

#### 2.4.4 Graduation in Absentia

All graduands are expected to attend and to participate in the graduation ceremony unless permission is granted to graduate in absentia by the Senate. Permission should be sought at least one trimester before graduation. Permission will be granted only in cases of genuine reasons. Graduation fee will nevertheless be charged.

#### 2.4.5 Graduation with Honours

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

- i. At least 80 semester credits with traditional letter grades earned in residence.
- ii. A cumulative GPA of: 3.75 and above: Summa Cum Laude (A golden sash to be worn on graduation day)
- iii. 3.50 3.74: Magna Cum Laude (A silver sash to be worn on graduation day)
- iv. 3.00 3.49: Cum Laude (A bronze sash to be worn on graduation day)

#### 2.4.6 Duration of programme

The duration of completion of a degree programme will not exceed eight years. In the event that eight years elapse before the student completes the requirements of the degree, the student must seek readmission.

#### 2.4.7 Residence Requirements

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

#### 2.4.8 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 day. When a student returns after graduation with one degree to complete another major/degree, he/she may graduate with that major/degree as follows:

- i. All individuals seeking subsequent bachelor's degree(s) must apply and obtain approval of the Academic Standards Committee.
- ii. All requirements for subsequent bachelor's degree(s) being sought must be fulfilled.
- iii. Credits earned in General Education Requirements may apply for a subsequent bachelor's degree(s).
- iv. Electives earned in previous Bachelor's degree will not apply in subsequent Bachelor's degree(s).

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

#### 2.4.9 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.

### 2.4.10 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.

#### 2.4.10.1 Procedure

- i. 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.
- ii. 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.
- iii. If condition "i" is met, the student should obtain interdepartmental transfer form(s) from the Registrar's Office and complete it (them) accordingly.
- iv. When the student has completed the form(s), 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, and
  - c) The Dean of the School to which he/she is transferring;
- v. Return the form(s) to the Registrar's office for processing.
- vi. The registrar effects the transfer and informs the student and the affected departments and schools.

#### 2.4.11 Transfer Credits

Students who have attended other recognized institutions of higher learning must submit complete transcripts of studies. Such credit will not enter into GPA calculation but can be counted toward degree requirements. The following stipulations apply:

- i. 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).
- ii. 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.
- iii. The upper-division credits accepted for transfer shall not exceed 30 semester credits. Such credits will not be used to calculate the GPA.
- iv. Transfer credit may not be accepted until a student has successfully completed one trimester in residence.
- v. 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.
- vi. 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.
- vii. Regardless of the number of transfer credits accepted, a student must meet the general residence requirements at the University of Eastern Africa, Baraton.
- viii. No transfer of credits after a lapse of eight (8) years will be accepted.

#### 2.4.11.1 Procedure of Credit Transfer

- Each transfer student after one trimester of residence at UEAB may apply to the Registrar's Office for transfer credits. He/she must submit course syllabus or Bulletin sections of his/her previous college or university (if not available in Registrar's Office) relevant to courses seeking transfer.
- ii. The Registrar sends a letter to the respective Deans of the schools requesting the processing of transfer credits for those who have submitted the relevant documents (transcripts, course syllabus, bulletin, letter of application, etc.).
- iii. The Dean of the School, in consultation with the relevant Department Chairperson, recommends to the Registrar the number of credits acceptable for transfer.
- iv. 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.
- v. Transfer of credits is effected only after the approval of the Academic Standards Committee.

#### 2.4.12 Classification of Students

Freshman: A beginning student in the University.

Sophomore: A second year student, with at least 42 credit

hours earned or accepted.

Junior: A third year student with at least 84 credit hours

earned or accepted.

Senior: A fourth year student with at least 110

credit hours earned or accepted and with all requirements for graduation completed or properly planned as to be completed during the

fourth year.

#### 2.4.13 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 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 proper form must be obtained. Absences for any reason other than those mentioned above are considered unexcused.

Class work such as quizzes and tests missed during an excused absence may be made up through arrangements with the lecturers involved. Class work missed during an unexcused absence may not be made up. If a student's total number of absences excused and/or unexcused exceeds 15% of the total class meetings in a course, a grade of F may be recorded. If warranted by special circumstances, the Academic Standards Committee may grant permission to make up the missed class work.

#### 2.4.13.1 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.

#### 2.4.13.2 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 trimester may result in suspension.

#### 2.5 DEGREE GENERAL INFORMATION

The University of Eastern Africa, Baraton offers academic programmes leading to Bachelor of Arts (BA), Bachelor of Business Administration (BBA), Bachelor of Business Information Technology (BBIT), Bachelor of Education (BEd) Arts and Sciences, Bachelor of Science (BSc), Bachelor of Science, Nursing (BScN), Bachelor of Science in Technology (BST), Bachelor of Technology (BT), Master of Education (MEd), Master of Science (MSc), Master of Science, Nursing (MScN) and Doctor of Philosophy (PhD) in Education with specializations in Educational Administration and in Curriculum and Teaching degrees.

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

In addition to concentrating in 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.

The Bachelor of Technology degree is a practical, applied science degree. The Bachelor of Business Administration degree is a specialized degree in the area of Business studies.

### 2.5.1 Concentration, Major, Minor and Cognates

A Major is the student's area of specialization covering basic material. A Concentration is similar to a Major but covers a broader range of subjects and often incorporates a number of professional and practical experience type of courses.

A Minor is a second area of emphasis, but the course work is not as extensive as that of a Major.

Cognates are courses closely related to and or supportive of a student's Major. Several departments require certain Cognates to be taken in connection with the Major.

The specific requirements for areas of Concentration, Majors, Minors and Cognates, are listed under the respective departments in the section entitled Courses of Instruction.

#### 2.5.2 Selection of Major or Concentration

For better planning every student who is not sure what he/she wants to take is required to select his/her major area of concentration 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 of concentration, 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.

#### 2.5.3 Credit Hours and the Trimester

The University of Eastern Africa, Baraton, operates on the trimester system, each trimester being approximately fourteen 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 trimester. The student is expected to spend a minimum of two hours of outside preparation for each class period.

Every academic year consists of three regular trimesters of fourteen (14) weeks running between September and July.

#### 2.5.4 Credit Hours Required for Degree

A bachelor's degree requires a minimum of 144 semester credit hours. For a student who presents no transfer credits, this will require about four regular academic years to complete a bachelor's degree as shown in the typical example below:

71			
School Year	Credits/trimester	No. of trimesters	Total for Year
st	14	3	42
2 <sup>nd</sup>	14	3	42
3 <sup>rd</sup> 14		3	42
4 <sup>th</sup> 9		2	18
Total trimester Credits			144

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

#### 2.5.4.1 Minimum class size

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

i. Regular instructorii Adjunct instructor5 students8 students

Any exception requires approval of the Academic Standards Committee.

#### 2.5.5 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.

#### 2.5.6 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:

#### I. SCHOOL OF BUSINESS

#### **Department of Accounting**

- Accounting
- Finance
- Ass. Degree in Accounting
- Ass. Degree in Finance
- Minor in:
  - i. Accounting
  - ii. Finance

#### **Department of Management**

- Management
- Marketing
- Office Administration
- Minor in Economics

#### **Department of Information Systems and Computing**

- Bachelor of Business Information Technology (BBIT)
- BSc. Software Engineering
- BSc. Networking and Communication Systems
- Associate degree in BBIT
- Associate degree in Software Engineering
- Associate degree in Networking and Communication Systems
- Minor in:
  - i. Management Information Systems
  - ii. Computer Science

#### 2. SCHOOL OF EDUCATION

#### Department of Educational Administration, Curriculum and Teaching

- B.Ed Arts in the following Secondary School/College teaching subjects: English Language; Literature; Kiswahili; Religion; History; Geography; Music.
- B.Ed Sciences in the following Secondary School/College teaching subjects: Mathematics; Biology; Home science; Chemistry; Agriculture; Physics.
- Upgrading P1 to Bachelor of Education (B.Ed)

#### **Department of Counseling Psychology**

- Post-Graduate Diploma in Counseling Psychology
- BA. Counseling Psychology
- Minor in:
  - i. Psychology
  - ii. Health Psychology

#### 3. SCHOOL OF HEALTH SCIENCES

#### **Department of Nursing**

• Bachelor of Science in Nursing (BSN)

#### **Department of Medical Laboratory Science**

• BSc. Medical Laboratory Science

#### **Department of Public Health**

• BSc. Public Health

### 4. SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

### Department of History, Geography & Development Studies

- BA. History
- BA. Geography
- BA. Development Studies
- Minor in:
  - i. Geography
  - ii. History
  - iii. Development Studies
  - iv. Environmental Studies

#### **Department of Languages and Literature**

- BA. Kiswahili
- BA. French
- BA. English Language with three concentrations: Language, Literature, Linguistics
- BA. Mass Communication
- Minor in:
  - i. English
  - ii. French
  - iii. Kiswahili

#### **Department of Music**

- Bachelor of Music in Music Education (BMus.Mus.Ed)
- BA. Music
- Minor in Music

#### **Department of Theology and Religious Studies**

- BA. Theology
- BA. Religion
- Minor in Religion

#### 5. SCHOOL OF SCIENCE AND TECHNOLOGY

#### **Department of Agriculture**

- BSc. Agriculture
- BSc. Agri-business
- Bachelor of Technology (BT) in Agriculture
- Minor in Agriculture.

#### **Department of Biological Sciences**

- BSc. in Biology with options:
  - i. Bio-Medical Science
  - ii. Biotechnology
  - iii. Conservation Biology
  - iv. General Biology
- Minor in Biology

#### **Department of Chemistry**

- BSc. in Chemistry with options:
  - i. Analytical Chemistry
  - ii. Biochemistry
  - iii. Industrial Chemistry with management
  - iv. General Chemistry

#### **Department of Family and Consumer Sciences**

- BSc. Family and Child Development
- BSc. Fashion and Textile Design
- BSc. Hotel Management
- BSc. Nutrition and Dietetics
- BSc. Social Work
- Ass. Degree in the options above
- Minor in the options above

#### **Department of Mathematics and Physics**

- BSc. Mathematics
- Minor in:
  - i. Mathematics
  - ii. Applied Statistics
  - iii. Physics

#### **Department of Technology**

- Bachelor of Science in Technology (BST) (Automotive)
- Bachelor of Technology (BT) in Automotive
- Bachelor of Science in Technology (BST) Electronics in the following options:
  - i. Communication Electronics
  - ii. Industrial Electronics
- Ass. Science Degree in Electronics

#### 2.6 COURSE ABBREVIATIONS

The following course abbreviations are used in the Bulletin.

ABBR	SUBJECT AREA	DEPARTMENT
ACCT	Accounting	Accounting
AGEC	Agriculture	Agriculture
AGEN	Agriculture	Agriculture
AGRI	Agriculture	Agriculture
ANSC	Animal Science	Agriculture
ARCH	Archaeology	History, Geography and Development Studies
AUBO	Automotive Engineering	Technology
AUTO	Automotive	Technology
BIBL	Biblical Languages	Theology and Religious Studies
BIOL	Biology	Biological Sciences
BIOT	Biotechnology	Biological Sciences
BOTN	Botany	Biological Sciences
CHEM	Chemistry	Chemistry
CLSC	Clinical Laboratory Science	Medical Laboratory Science
CMMT	Electricity and Electronics	Technology
CNST	Construction	Technology
COMM	Communication	Languages and Literature
COMP	Computer	Technology
COSC	Computer	Information Systems and Computing
CPSC	Crop and Soil Science	Agriculture
DEST	Development Studies	History, Geography and Development Studies
DTCS	Dietetics	Family and Consumer Sciences
ECON	Economics	Management
EDAD	Educational Admin	Educational Admin., Curriculum and Teaching
EDFO	Educational Foundations	Educational Administration, Curriculum and Teaching
EDPS	Educational Psychology	Psychology and Counselling
EDTE	Teacher Education	Educational Administration, Curriculum and Teaching
EDTM	Teaching Method	Educational Administration, Curriculum and Teaching
EDUC	Education	Educational Administration, Curriculum and Teaching
EDUF	Education Foundations	Educational Administration, Curriculum and Teaching
EDST	Educational Statistics	Educational Administration, Curriculum and Teaching
ELCT	Electronics	Technology
ENGL	English	Languages and Literature
ENVI	Environmental Studies	History, Geography and Development Studies
FCSC	Family and Consumer Sciences	Family and Consumer Sciences
FDNT	Foods Science	Family and Consumer Sciences
FNCE	Finance	Accounting
FREN	French	Languages and Literature
FTXD	Fashion and Design	Family and Consumer Sciences

<b>ABBR</b>	SUBJECT AREA	DEPARTMENT
GCAS	General Studies	Humanities and Social Sciences
GEOG	Geography	History, Geography and Development Studies
GEWE	General Studies	Educational Administration, Curriculum and Teaching
GTEC	General Studies	Educational Administration, Curriculum and Teaching
HIST	History	History, Geography and Development Studies
HLED	Health Education	Family and Consumer Sciences
HORT	Horticulture	Agriculture
HTGM	Hotel Management	Family and Consumer Sciences
INDS	Industrial Technology	Technology
INEL	Electronics	Technology
INSY	Information System	Information Systems and Computing
INTR	Interior Design	Family and Consumer Sciences
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
MILS	Metal Technology	Technology
MTLS	Metal Technology	Technology
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	Family and Consumer Sciences
OFAD	Office Administration	Management
OFTE	Secretarial Studies	Management
PEAC	Physical Education	Educational Administration, Curriculum and Teaching
PHEH	Environmental Health	Public Health
PHEP	Epidemiology	Public Health
PHHC	Community Health	Public Health
PHNT	Health Nutrition	Public Health
PHYS	Physics	Mathematics and Physics
POLS	Political Science	History, Geography and Development Studies
PSYC	Psychology	Psychology and Counselling
PUBL	Pre-university Biology	Educational Administration, Curriculum and Teaching
PUBS	Pre-university Business Studies	Educational Administration, Curriculum and Teaching
PUCH	Pre-university Chemistry	Educational Administration, Curriculum and Teaching

<b>ABBR</b>	SUBJECT AREA	<u>DEPARTMENT</u>
PUEN	Pre-university English	Educational Administration, Curriculum and Teaching
PUMT	Pre-university Mathematics	Educational Administration, Curriculum and Teaching
PUPH	Pre-university Physics	Educational Administration, Curriculum and Teaching
PURS	Pre-university Religious Studies	Educational Administration, Curriculum and Teaching
PUSH	Pre-university Social Studies	
	(History)	Educational Administration, Curriculum and Teaching
PUSK	Pre-university Education	Educational Administration, Curriculum and Teaching
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	Theology and Religious Studies
SDEV	Electronics	Technology
SECR	Secretarial Studies	Management
SOCI	Sociology	Educational Administration, Curriculum and Teaching
STAT	Statistics	Mathematics and Physics
SWFI	Social Work	Family and Consumer Sciences
SWFC	Social Work	Family and Consumer Sciences
SWHS	Social Work	Family and Consumer Sciences
SWSA	Social Work	Family and Consumer Sciences
SWSR	Social Work	Family and Consumer Sciences
SWSW	Social Work	Family and Consumer Sciences
SWCA	Social Work	Family and Consumer Sciences
SWHA	Social Work	Family and Consumer Sciences
SWSS	Social Work	Family and Consumer Sciences
SWES	Social Work	Family and Consumer Sciences
SWIS	Social Work	Family and Consumer Sciences
SWFR	Social Work	Family and Consumer Sciences
SWPC	Social Work	Family and Consumer Sciences
SWHS	Social Work	Family and Consumer Sciences
SWEC	Social Work	Family and Consumer Sciences
TCED	General Technology	Technology
TCEM	Engineering Mathematics	Technology
TXTL	Textiles and Clothing	Family and Consumer Sciences
WOOD	Wood Technology	Technology
ZOOL	Zoology	Biological Sciences

#### 3. GENERAL EDUCATION REQUIREMENTS

#### 3.1 PHILOSOPHY/RATIONALE

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

It is hoped that the programme will assist the student to construct a thoughtfully conceived world view that recognizes the roles of Scripture, and nature, as sources of truth.

#### 3.2 GENERAL EDUCATION GOALS

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

#### i. Religion

From the study of faith, ethics, doctrine, students will gain an experiential understanding of God's divine plan for their lives.

#### ii. Language and Communication

Through practice, students will develop strategies for effective oral and written communication.

#### iii. Arts and Humanities

These will help students understand how civilization expresses itself.

#### iv. Social Sciences

The Social Sciences will help students understand different facets of human behaviour.

#### v. Natural Sciences

Through Natural Sciences students will experience the scientific method of studying the natural universe and the current way of understanding it.

#### vi. Mathematics and Computer Science

Will help students to develop the logical, mathematical, and computer skills vital to life in a modern world.

#### vii. Vocational Skills

These will assist students acquire skill necessary for vocation.

#### viii. Health Principles

Students will apply the principles of health and fitness to their lives.

#### ix. Environmental Awareness

This will assist the students to understand environmental problems and what can be done to avoid them.

#### x. 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 **INSY 108** instead of **INSY. 107.** 

#### 3.3 GENERAL EDUCATION **COURSES 47 - 50 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:

I. ARTS AND HUMANITIES (I I CREDITS)				
GCAS 207	Music Appreciation	1		
ENGL III	Introduction to Writing Skills I	2		
ENGL 112	Introduction to Writing Skills II	2		
ENGL 113	Speech Communication	2		
LITE 151	Introduction to Literary			
	Appreciation	2		
KISW 104	Language use in Kiswahili	2		
Or	5 5			
FREN 103	Beginning French II	2		
II. BUSINES	S (2 CRI	EDITS)		
MGMT 103	Basic Management and			
	Entrepreneurial Skills	2		
OFTE 120	Keyboarding (By challenge)	0		
III. EDUCATI		EDITS)		
EDUC 215	Introduction to Philosophy of			
	Christian Education	2		
PEAC 107	Physical and Recreational	_		
. 2 (0 . 0)	Activities			
IV. HEALTH		EDITS)		
HLED II0	Health Principles (For Non -			
	Health Sciences Majors)	1		
V. NATURAL		4 CREDIT	TS)	
AGRI 105	Principles of Agricultural			
	Technology	2		
BIOL 105	Human Biology	2		
INSY 107	Information Technology Today	2		
Or				
INSY 108	Information Technology for the			
	Health Professionals	2		
Or	r realth i refessionals	_		
INSY 118	Business Information Processing	3		
MATH 101	Pre-calculus	3		
Or	Tro calculus			
	Fundamentals of Mathematics	3		
MATH 107	Fundamentals of Mathematics  the Following (2 - 3 Credits)	3		
MATH 107	Fundamentals of Mathematics the Following (2 - 3 Credits) Biostatistics	3		

PHYS 105	Concepts of Physical Sciences I	2		
PHYS 106	Concepts of Physical Sciences II	2		
STAT 201	Statistics I	3		
VI. ENVIRON		_		
	he Following (2 Credits)	)113)		
ENVI 227	Environment and Society	2		
GEOG 255	Principles of Geographic	_		
GLOG 255	Information Systems	2		
CHEM 200	Environmental Science	2		
VII. RELIGION		_		
RELB 220	Life and Teachings of	113)		
ILLD ZZO	lesus - General	2		
RELH 155	Adventist Heritage	2		
RELT 207	Christian Beliefs	3		
RELT 255	Introduction to Christian Ethics	2		
VIII. SOCIAL SO				
	· · · · · · · · · · · · · · · · · · ·	)113)		
. ,	the Following)	2		
HIST III	Concepts of World Civilization	2		
HIST 119 PSYC 101	Issues in Development Studies			
	Introduction to Psychology	2		
SOCI 121	Introduction to Sociology	2		
ECON 201	Introduction to principles of			
0) 1 (51 0 0 7	Economics	2		
SWFI 207	Family Issues	2		
IX. VOCATION	<b>\</b>	DITS)		
Any one of t	he Following:			
AGEN 235	Tractor Operations and			
	Maintenance	1		
AUTO 100	Personal Auto care	1		
AUTO 110	Automobile Driving	1		
CNST 102	Construction Materials	1		
ELCT 100	Basic Electronics Maintenance	1		
FTXD 108	Weaving	1		
FTXD 107	Quilting	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	Wood Work	1		
OTAL GENER	OTAL GENERAL REQUIREMENTS 47 – 50 Credits			

#### 4. BULLETIN DEFINITIONS

#### 4.1 Core Courses: -

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

#### 4.2 Cognate Courses: -

These are courses which are related or allied to the courses that support or provide some knowledge in understanding or applying the core courses. They are usually courses from other areas of study other than the major field of study.

#### 4.3 Elective Courses: -

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

#### 4.4 Specialization: -

These are courses that are in addition to the core that apply to a specific option in a particular degree programme.

#### 4.5 Prerequisites: -

Courses that must be successfully taken prior to registration in another course.

#### 4.6 Corequisites: -

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

#### 4.7 Trimester: -

A period of twelve (12) weeks which includes registration, instruction and examinations.

### 4.8 Regular Students: -

(See 2.3.18) Page, xxiii

### **4.9 Part-time Students: -** (See 2.3.18) Page, xxiii

4.10 Full-time Students: -

(See 2.3.18) Page, xxiii





















# SCHOOL OF BUSINESS



#### SCHOOL OF BUSINESS

#### DEAN - Idowu, A. O.

#### **PHILOSOPHY**

The school of business is committed to train and develop future business professionals who are fortified with spiritual and moral strength and virtues and academically prepared to enable them 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 field.

#### **VISION**

The vision of the school of Business is to be one ofthe 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:

- I. 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 AND DIPLOMAS 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 Accounting (Executive)
- 5. Master of Business Administration (MBA) in Business Management (Executive)
- 6. Master of Business Administration (MBA) in Human Resource (Executive)
- 7. Master of Business Administration (MBA) in Finance (Executive)

#### **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) Networks and Communication Systems
- 8. Bachelor of Science (BSc) Software Engineering

#### **MINORS**

- 1. Minor in Accounting
- 2. Minor in Finance
- 3. Minor in Economics
- 4. Minor in Computer Science
- 5. Minor in Business Management
- 6. Minor in Management Information Systems
- 7. Minor in Marketing
- 8. Associate Degrees in:
  - Business Information Technology
  - Software Engineering
  - Networks and Communication Systems

### **DEPARTMENT OF ACCOUNTING AND FINANCE**

#### **FACULTY**

Bwonda, D. -(Chairperson)

Akuno, P.

Marwa, F.

Ongeta, J.

**Email:** hod accounting@ueab.ac.ke

#### **PHILOSOPHY**

The Department of Accounting and Finance is committed to train and develop future business professionals who are fortified with moral strength and virtues, to prepare them academically to function in their respective professions, and equip them to be effective agents for economic growth and development and yet lead them towards the restoration of their relationship with God, the Creator and Sustainer, which was estranged by sin.

#### **MISSION**

The fundamental mission of the Department 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 provide one of the best programmes in accounting and finance in Africa and the rest of the world.

#### **ACCOUNTING OPTION**

#### **EXPECTED LEARNING OUTCOMES**

The academic programmes of the Department of Accounting & Finance are particularly designed to achieve the following Outcomes:

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

- Explain concepts and principles of business records used in accounting cycle; Explain the accounting principles and concepts and the accounting life cycle;
- 2. Identify books of accounts including journal, ledger, income and expenditure, balance sheet and cash flows;
- 3. Prepare and analyse liability and 'stockholders' equity accounts;

- 4. Prepare budget for profit making and non-profit making organizations;
- 5. Design and evaluate accounting information systems;
- 6. Analyse 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.

#### **FINANCE OPTION**

#### **EXPECTED LEARNING OUTCOMES**

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

- I. 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 process, money management and investment;
- 3. Discuss financial portfolio theory, capital pricing models, and asset pricing models;
- 4. Analyse 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.

### DEGREES AND DIPLOMAS 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. Associate Degree in Accounting
- 6. Associate Degree in Finance
- 7. ATC and CPA Professional studies.

# 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 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, controller, treasurer, manager, financial analyst, chief executive officer, investment consultant, tax advisor, purchasing or marketing officer, production supervisor, or handle any business-related position in the afore-cited organizations.

### **ENTRANCE REQUIREMENTS**

#### Direct Entry

An applicant who scores on the KCSE a minimum of C or its equivalent, in both English and Mathematics, in addition to meeting the entrance requirements of the University, may be considered to pursue either a Bachelor of Business Administration in Accounting or Finance, or a minor in Accounting or Finance or an Associate degree in Accounting or Finance. Additionally;

I. An applicant asking to do a BBA Accounting or Finance degree may be admitted into the department of Accounting & Finance on the basis of a CPA II qualification and may be exempted from doing Fundamentals of Accounting I & II (ACCT 111 &ACCT 112). This is in addition to other university admission requirements. Any other exemptions will be as per policy - either through challenge examinations or transfer of credits.

2. An applicant who holds a CPA(K)- Finalist qualification and desires to obtain a BBA Accounting or Finance degree may be admitted and exempted from doing ACCT III, ACCT 112, ACCT 211, ACCT 212 and any 100 or 200 code Accounting & Finance courses. Any other exemptions will be as per policy- either through challenge examinations or transfer of credits.

#### 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 MATH III and II2 and an average grade of at least C+ in ENGL III, II2 and II3.

#### **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 General Faculty Assembly upon completion of the following requirements:

- I. 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 GPA of 2.00 for electives.
- 4. A minimum of twelve (12) continuous weeks of practical experience in a well-established company.
- 5. A minimum average grade of B- in Practical Experience courses.

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#### **COURSE LISTING**

### BACHELOR OF BUSINESS ADMINISTRATION IN ACCOUNTING

#### **SUMMARY**

General Education Courses	40
Core Courses	47
Specialization	39
Cognates	16
Electives	6

Total 148 Credits

#### **GENERAL EDUCATION COURSES** 40 Credits

(See General Education section for details)

Students are exempted from the following general education courses:

ECON 201	Introduction to	
	Principles of Economics	2
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and	
	Entrepreneur Skills	2
STAT 201	Statistics I (required as a cognate	
	for business students)	3

CORE COURSES	47 Credits
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1	COILL COO	 	uics
	ACCT	Fundamentals of Accounting I	4
	ACCT 112	Fundamentals of Accounting II	4
	ECON 210	Principles of Microeconomics	3
	ECON 211	Principles of Macroeconomics	3
	<b>ECON 328</b>	Money and Banking	3
	FNCE 287	Principles of Finance	3
	INSY 118	Introduction to Business	
		Information Processing	3
	<b>INSY 236</b>	Microcomputer Applications	3
	MATH III	Business Mathematics I	4
	MATH 112	Business Mathematics II	4
	MGMT 130	Fundamentals of Management	3
	MGMT 141	Business Law I (Mercantile Law)	2
	MGMT 142	Business Law II (Company Law)	2
	MGMT 145	Environment of Business	3
	MKTG 115	Principles of Marketing	3

SPECIALIZA	411	ON COURSES 39 Cre	edits
ACCT 211		Intermediate Accounting I	4
ACCT 212		Intermediate Accounting II	4
ACCT 340		Cost and Managerial Accounting	4
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		Practical Experience	
		in Accounting II	2
FNCE 470		Financial Management	3

(	COGNATE	CO	URSES 16 Cre	dits
	ECON 315		Intermediate Macro-Economics	3
	STAT 201		Statistics I	3
	STAT 202		Statistics II	3
	MGMT 475		Production and	
			Operations Management	3
	MGMT 491		Business Research Methods I	2
	MGMT 492		Business Research Methods II	2

Accounting Information Systems

INSY 318

MGMT 358

ı	ELECTIVE C	OL	JRSES 6 Cred	lits
	(Select any to	NO (	of the following courses)	
	ACCT 499		Research in Accounting	3
	FNCE 455		International Finance	3
	FNCE 467		Investment Analysis and	
			Portfolio Management	3
	FNCE 480		Management of	
			Financial Institutions	3
	INSY 210		Database Management Systems	3
	<b>INSY 305</b>		Management	
			Information Systems	3

Risk Management

### BACHELOR OF BUSINESS ADMINISTRATION IN FINANCE

#### **SUMMARY**

General Education Courses	40
Core Courses	47
Specialization	38
Cognates	19
Electives	6
Total	150 Hours

### **GENERAL EDUCATION COURSES** 40 Credits

(See General Education section for details)

Students are exempted from the following general education courses:

ECON 201	Introduction to	
	Principles of Economics	2
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and	
	Entrepreneur Skills	2
STAT 201	Statistics I (required as a	
	cognate for business students)	3

### CORE COURSES 47 Credits

COILL COOL	101	.0	aics
ACCT III		Fundamentals of Accounting I	4
ACCT 112		Fundamentals of Accounting II	4
ECON 210		Principles of Microeconomics	3
ECON 211		Principles of Macroeconomics	3
<b>ECON 328</b>		Money and Banking	3
FNCE 287		Principles of Finance	3
INSY 118		Introduction to	
		Business Information Processing	3
INSY 236		Microcomputer Applications	3
MATH III		Business Mathematics I	4
MATH 112		Business Mathematics II	4
MGMT 130		Fundamentals of Management	3
MGMT 145		Environment of Business	3
MGMT 141		Business Law I	2
MGMT 142		Business Law II	2
MKTG 115		Principles of Marketing	3

<b>SPECIALIZA</b>	NOITA	COURSES	

TI CIEUIL3
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8	, LOIALIL	••••	511 55 511 51 51 51 51 51 51 51 51 51 51	-
	ACCT 211		Intermediate Accounting I	4
	ACCT 212		Intermediate Accounting II	4
	ACCT 340		Cost & Managerial Accounting	4
	ACCT 361		Taxation	3
	FNCE 390		Financial Markets and Institutions	3
	FNCE 455		International Finance	3
	FNCE 291		Personal Finance	3
	FNCE 467		Investment Analysis	
			and Portfolio Management	3
	FNCE 470		Financial Management	3
	FNCE 474		Intermediate Corporate Finance	3
	FNCE 475		Advanced Corporate Finance	3
	FNCE 480		Management of	
			Financial Institutions	3
	FNCE 485		Practical Experience in Finance	2

### COGNATE COURSES

ECON 315	Intermediate Macro-economics	3
STAT 201	Statistics I	3
STAT 202	Statistics II	3
MGMT 491	Business Research Methods I	2
MGMT 492	Business Research Methods II	2
FCON 420	Public Finance	3

#### **ELECTIVE COURSES**

#### **6 Credits**

**16 Credits** 

(Select any two or three of the following courses including at least one in Finance)

FNCE 473	Financial Derivatives	3
FNCE 499	Research in Finance	3
INSY 210	Database Management Systems	3
INSY 305	Management Information Systems	3
MGMT 330	Human Resource Management	3
MGMT 358	Risk Management	3
MGMT 475	Production and	
	Operations Management	3

MINOR IN A	CCOUNTING	24 Credi	ts				S FOR A MINOR IN
CORE COUR	SES	18 Credi	ts				OR FINANCE
ACCT 211	Intermediate Accounting I	4	4				tudent who desires a mi
ACCT 212	Intermediate Accounting II	4	4				te the following prerequis
ACCT 340	Cost & Managerial Accounting	ng 4	4		CCT III		Fundamentals of Account
ACCT 451	Advanced Accounting I		3		CCT 112		Fundamentals of Account
ACCT 461	Auditing I		3		NCE 287		Principles of Finance
ELECTIVE CO	HIRSES	6 Credit			1ATH       1ATH     2		Business Mathematics I Business Mathematics II
ACCT 318	Accounting Information Syste		2		1GMT 130		Fundamentals of Manage
ACCT 452	Advanced Accounting II		3				5
ACCT 462	Auditing II		3	AS	SOCIATI	E DE	GREE IN FINANCE
ACCT 484	Practical Experience			CC	DRE COL	JRSE	S
	in Accounting I		1		CCT III		Fundamentals of Account
ACCT 499	Research in Accounting	3	3		CCT 112		Fundamentals of Account
FNCE 455	International Finance		3		CCT 211		Intermediate Accounting
FNCE 467	Investment Analysis				CCT 212		Intermediate Accounting
	and Portfolio Management		3		NCE 287		Principles of Finance
FNCE 470	Financial Management		3		NCE 291		Personal Finance
MGMT 475	Production and				NCE 390		Financial Markets and Inst
	Operations Management	3	3	F	NCE 467		Investment Analysis
MINOR IN FI		24 Credi	4-				and Portfolio Managemer
				F	NCE 470		Financial Management
CORE COUR		18 Credi		CC	OGNATE	COL	JRSFS
FNCE 287	Principles of Finance		3		CON 210		Principles of Microecono
FNCE 390	Financial Markets and Institut		3		CON 211		Principles of Macroecono
FNCE 291	Personal Finance		3		VSY 118		Introduction to
FNCE 467	Investment Analysis		_				Business Information Pro
	and Portfolio Management		3	~	1ATH III		Business Mathematics I
FNCE 470	Financial Management		3		1ATH 112		Business Mathematics II
FNCE 480	Management of				TAT 201		Business Statistics I
	Financial Institutions	J	3		TAT 202		Business Statistics II
ELECTIVE CO	DURSES	6 Credit	S				
ECON 420	Public Finance	3	3				
FNCE 455	International Finance	3	3				
MGMT 358	Risk Management	3	3				
MGMT 475	Production and						
	Operations Management		3				

ACCOUNTING	G OR FINANCE 22 Cr	edits					
A non-business student who desires a minor in accounting or							
finance should take the following prerequisites:							
ACCT III	Fundamentals of Accounting I	4					
ACCT 112	Fundamentals of Accounting II	4					
FNCE 287	Principles of Finance	3					
MATH III	Business Mathematics I	4					
MATH 112	Business Mathematics II	4					
MGMT 130	Fundamentals of Management	3					
ASSOCIATE D	EGREE IN FINANCE 75 Cr	edits					
CORE COURS	SES 31 Cro	edits					
ACCT III	Fundamentals of Accounting I	4					
ACCT 112	Fundamentals of Accounting II	4					
ACCT 211	Intermediate Accounting I	4					
ACCT 212	Intermediate Accounting II	4					
FNCE 287	Principles of Finance	3					
FNCE 291	Personal Finance	3					
FNCE 390	Financial Markets and Institutions	3					
FNCE 467	Investment Analysis						
	and Portfolio Management	3					
FNCE 470	Financial Management	3					
COGNATE CO	OURSES 23 Cro	edits					
ECON 210	Principles of Microeconomics	3					
ECON 211	Principles of Macroeconomics	3					
INSY 118	Introduction to						
	Business Information Processing	3					
MATH III	Business Mathematics I	4					
MATH 112	Business Mathematics II	4					
STAT 201	Business Statistics I	3					
STAT 202	Business Statistics II	3					

GENERAL EDUCATION COURSES 14 Credits				
EDUC 215	Introduction to Philosophy			
	of Christian Education	2		
ENGL III	Introduction to Writing Skills I	2		
ENGL 112	Introduction to Writing Skills II	2		
ENVI 227	Environment and Society	2		
HIST III	Concepts of World Civilization	2		
RELB 220	Life and Teachings			
	of Jesus - General	2		
RELT 255	Introduction to Christian Ethics	2		

I	ELECTIVE COURSES 6 Credit				
	ACCT 361		Taxation	3	
	FNCE 228		Money and Banking	3	
	INSY 236		Micro-computer Application	3	
	MGMT 130		Fundamentals of Management	3	
	MKTG 115		Principles of Marketing	3	

### **ADMISSION REQUIREMENTS:**

A mean grade of a C+ at KCSE with a C in both Mathematics and English or Kiswahili or be holders of Kenya Certificate of Education Div.II with credit 6 in Math and English.

### **ASSOCIATE DEGREE**

IN ACCOUNTING	73 CREDITS
III ACCOUNTING	/3 CILEDITS

CORE COURSES 31 Cre			
ACCT		Fundamentals of Accounting I	4
ACCT 112		Fundamentals of Accounting II	4
ACCT 211		Intermediate Accounting I	4
ACCT 212		Intermediate Accounting II	4
ACCT 361		Taxation	3
ACCT 340		Cost and Managerial Accounting	4
ACCT 461		Auditing I	3
INSY 318		Accounting Information Systems	3
MGMT 141		Rusiness Law I	2

COGNATE COURSES 23 Cred				
ECON 210		Principles of Microeconomics	3	
FNCE 287		Principles of Finance	3	
INSY 118		Introduction to Business		
		Information Processing	3	
MATH III		Business Mathematics I	4	
MATH 112		Business Mathematics II	4	
STAT 201		Business Statistics I	3	
STAT 202		Business Statistics II	3	

GENERAL EDUCATION COURSES 14 Credits					
	EDUC 215		Introduction to Philosophy		
			of Christian Education	2	
	ENGL III		Introduction to Writing Skills I	2	
	ENGL 112		Introduction to Writing Skills II	2	
	ENVI 227		Environment and Society	2	
	RELB 220		Life and Teachings		
			of Jesus - General	2	
	RELT 255		Introduction to Christian Ethics	2	
	HIST III		Concepts of World Civilization	2	

ELECTIVE COURSES 6 Credit				
	ECON 211		Principles of Macroeconomics	3
	MGMT 130		Fundamentals of Management	3
	MKTG 115		Principles of Marketing	3

### **ADMISSION REQUIREMENTS:**

A mean grade of a C+ at KCSE with a C in both Mathematics and English or Kiswahili or be holders of Kenya Certificate of Education Div. II with credit 6 in Math and English.

#### **COURSE DESCRIPTIONS**

#### **ACCOUNTING COURSES**

### 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. Some of the topics covered are journalizing, posting to ledgers, adjusting accounts, and the preparation of income statements and balance sheets. 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 III 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 211 Intermediate Accounting I 4 Credits

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

### ACCT 212 Intermediate Accounting II 4 Credits

As a continuation of Intermediate Accounting I, the course includes current and non-current liabilities, stockholders equity and the related revenue and expense accounts and also 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 211.** 

# ACCT 340 Cost and Mangerial Accounting 4 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, differential cost and revenue analysis. A study of management planning, decision making, and control. 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.

Prerequisites: STAT 201, STAT 202 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 212.** 

### 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 45 I 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 are emphasized.

Prerequisite: ACCT 212.

# 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. **Prerequisite: ACCT 211 and STAT 202.** 

### 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 I I Credit

This course provides a link between accounting theory and practice. The student is expected to accomplish a minimum of two practice sets in such areas as job costing, accounting for merchandising firms, partnerships, etc. **Prerequisite: Junior standing in Accounting.** 

## ACCT 485 Practical Experience in Accounting II 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 499 Research in Accounting 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. **Prerequisite: Senior standing in Accounting.** 

#### **FINANCE COURSES**

### 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 390 Financial Markets and Institutions 3 Credits

The course covers investigation and analysis of organization, structure and performance of money, capital markets and institutions. It also covers the impact of financial institutions on the allocation of funds to various sectors of the economy, analysis of the intermediary process, determination of interest rates in the financial markets, regulation of the financial industry, and the role of financial instruments. The students are expected to become familiar with current events in the financial news. The course may require a field trip. **Prerequisite: FNCE 287 or ACCT 212.** 

#### FNCE 291 Personal Finance 3 Credits

An introduction to concepts to assist both individuals and families who need a considerable degree of financial expertise in order to utilize optimally their limited incomes. Principal topics include: financial planning process, money management and personal investments (real estate, securities, etc), insurance needs (medical life, automobile and disability), income tax planning, consumer credit and retirement planning. **Prerequisite: FNCE** 287.

#### 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 & 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 analyses, 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 390.** 

### 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. **Pre-requisite: 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 390.** 

### FNCE 485 Practical Experience 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 499 Research in Finance 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 491 and MGMT 492.** 

#### DEPARTMENT OF INFORMATION SYSTEMS AND COMPUTING

#### **FACULTY**

Ndiege, J. -Chairperson

Gichatha, A. -(part time teaching assistant)

Idowu, A. Mayaka, K.

Nyamwamu R. -(teaching Assistant)

Nyamwaya, O.

Ochola, M. -(teaching Assistant)

Otim, L. Ruguri, L.

Walela, P. -(part time)

**Email:** isc@ueab.ac.ke, hod\_isc@ueab.ac.ke

#### **PHILOSOPHY**

As today's business organizations increasingly depend on effective information systems, and computers are being used increasingly in their construction, the department emphasizes the analysis and design of information systems in such organizations, and consider the possible gains to be made by using computers to support these activities. The department provides an environment suitable to produce skilled professional graduates with a sound understanding of the relevant disciplines of network technologies and communication principles, software construction methods in the broad areas of programming and systems analysis and design for both public and private sectors of industry and commerce. In all, the appreciation of the spiritual values needed as software developers, IT managers and Network administrators are emphasized while considering ethical, security and privacy issues.

#### **MISSION**

The department is committed to supporting and implementing the mission of the university in the provision and advancement of a wholistic Christian quality education for the youth with the aim of equipping them with the necessary skills for service to God and Mankind.

#### **VISION**

The vision of the department is to offer the best Information Technology programs and be a leader in IT based research and development in Africa.

#### **EXPECTED LEARNING OUTCOMES**

The programs provide opportunity for students to acquire skills so as to be able to:

- 1. Participate in the design of the organization's information architecture.
- 2. Design competitive and efficient Information Systems.
- 3. Manage the information resource in an organization.
- 4. Understand hardware and software standards for the purposes of system procurement and management.
- 5. Allocate resources to competing system alternatives.
- 6. Have a basis for future self-development as computers and computer usage evolve.
- 7. Apply spiritual and professional ethical norms and values in the process of developing, using, maintaining and evaluating information systems.
- 8. Participate in the Information Technology (IT) revolution.
- 9. Effectively manage IT projects.
- Comfortably sit for relevant professional examinations and do well.
- 11. Effectively engage in IT based research and development.

### DEGREES AND DIPLOMAS OFFERED BY THE DEPARTMENT

- 1. Bachelor of Business Information Technology.
- 2. Bachelor of Science in Networks and Communication Systems.
- 3. Bachelor of Science in Software Engineering.
- 4. Minor in Computer Science.
- 5. Minor in Management Information Systems.
- 6. Associate Degree in Business Information Technology.
- 7. Associate Degree in Software Engineering.
- 8. Associate Degree in Networks and Communication Systems.

#### **CAREER OPPORTUNITIES**

Graduates can be employed in any private or government organizations as:

- 1. Software Developer
- 2. System Administrator
- 3. Database Administrator
- 4. Network Administrator
- 5. Network Engineer
- 6. IT Manager
- 7. Teacher/lecturer
- 8. Systems Analyst
- 9. Information Systems Auditor
- 10. Or may pursue graduate studies in any of the Major areas of learning.

#### **ENTRANCE REQUIREMENTS**

#### **DIRECT ENTRY FOR A DEGREE**

In addition to meeting the university entrance requirements, the following requirements specified for each major must be met:

### I. Bachelor of Business Information Technology;

A student with a C in Mathematics and a C+ and above in Business Studies and C+ in English at KCSE or its equivalent.

### 2. Bachelor of Science in Networks and Communication Systems;

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

### 3. Bachelor of Science in Software Engineering;

A student with a C in Mathematics and a C+ or better in Business Studies or Physics and C+ in English at KCSE or its equivalent.

#### INTERDEPARTMENTAL TRANSFERS

Students admitted to the University for other Program and who desire to change to this program MUST obtain as indicated for each of the program below:

### I. Bachelor of Business Information Technology;

A mean grade of C+ in ENGL III, II2, II3 and a mean grade of C+ in MATH I7I and I72 or MATH I0I and I02 and a grade of C in PHYS 15I. (This applies to students who may not meet the requirements for direct entry as stipulated above).

### 2. Bachelor of Science in Networks and Communication Systems;

A mean grade of C+ in ENG III, II2, II3, a C+ in PHY I51 and a mean grade of C+ in MATH I71 and I72 (even if they did not meet the requirements for direct entry as stipulated above).

#### 3. Bachelor of Science in Software Engineering;

A mean grade of C+ in ENGL III, II2, II3 and a mean grade of C+ in MATH I01, I02 or III, II2, or I71 and I72 (even if they did not meet the requirements for direct entry as stipulated above).

### ENTRANCE REQUIREMENTS FOR ASSOCIATE DEGREE:

### ASSOCIATE DEGREE IN BUSINESS INFORMATION TECHNOLOGY

Same as entrance requirements for degree in Bachelor of Business Information Technology.

### ASSOCIATE DEGREE IN NETWORKS AND COMMUNICATION SYSTEMS

Same as entrance requirements for degree in Bachelor of Science in Networks and Communication Systems.

#### ASSOCIATE DEGREE IN SOFTWARE ENGINEERING

Same as entrance requirements for degree in Bachelor of Science in Software Engineering.

### UPGRADING TO A DEGREE IN THE DEPARTMENT FROM ASSOCIATE DEGREE

- I. Because the program components are majorly what is ordinarily covered in the first two years of a degree, this would make it possible for the Associate Degree holder to further their studies to a degree level by having a direct entry into the third year of the normal degree program as long as they have a cumulative GPA of at least 2.25 in the relevant Associate Degree.
- 2. Students who may want to upgrade to a degree from any of the Associate Degrees offered in other institutions outside the university must satisfy the following conditions:
  - a) Must have studied for at least 2 years in a government recognized institution(eg NEC, CHE, or any other nationally or internationally recognized examination body)
  - b) Must provide both transcript and course syllabi for all the courses done at the diploma level.
  - Must have had at least a C+ at KCSE and at least a C+ average at the diploma level
  - d) Allowable courses for transfer to be based on the university bulletin policy on transfer.

### **GRADUATION REQUIREMENTS**

To qualify for graduation, a student must complete the university graduation requirements as stipulated in this bulletin.

Students in the Department of Information Systems and Computing are exempted from the following courses in the General Education Requirements:

### GENERAL EDUCATION COURSES EXEMPTED

ECON 20 INSY 107 MGMT 10

MATH 101 STAT 201

EXEMPTED 12 Cred					
		Principles of Economics	2		
		Information Technology Today	3		
)3		Basic Management and			
		Entrepreneurial Skills	2		
l		Pre-calculus	3		
		Statistics I	3		

#### **COURSE LISTING**

### BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

#### **SUMMARY**

General Education Courses	43
Core Courses	57
Cognates	52
Electives	6
Total	158 Credits

### GENERAL EDUCATION COURSES 43 Credits

(See General Education section for details)

CORE COURSES 57 Cree			
IC 161		Programming in C Language	3
IC 162		Data Structures and Algorithm	3
IC 171		Visual Basic.Net Programming	3
C 217		Introductions to	
		Linux Administration	3
C 225		Computer Organizations	3
C 237		Networks and	
		Telecommunications	3
C 261		Operating Systems	3
C 272		Object Oriented Design	
		and Programming	3
C 312		Java Programming	3
C 343		Foundations of	
		Human-Computer Interaction	3
C 440		Artificial Intelligence	3
210		Database Management Systems	3
214		Web Design and	
		Internet Technologies	3
236		Microcomputer Applications	3
′281		Systems Analysis and Design	3
′ 305		Management	
		Information Systems	3
′316		E-Commerce	3
497		IT Project Management	3
499		Practical Experience	3
	C 161 C 162 C 171 C 217 C 217 C 237 C 261 C 272 C 312 C 343 C 440 (210 (214 (236 (281 (305) (316 (497)	C 161 C 162 C 171 C 217 C 225 C 237 C 261 C 272 C 312 C 343 C 440 C 210 C 214 C 236 C 281 C 305 C 316 C 497	Programming in C Language Data Structures and Algorithm Visual Basic.Net Programming Introductions to Linux Administration C 225 Computer Organizations Networks and Telecommunications Operating Systems C 272 Object Oriented Design and Programming Java Programming C 312 Java Programming C 343 Foundations of Human-Computer Interaction Artificial Intelligence Database Management Systems Veb Design and Internet Technologies Microcomputer Applications Systems Analysis and Design Management Information Systems C 316 E-Commerce T Project Management

#### **COGNATE COURSES 52 Credits** Fundamentals of Accounting I ACCT III ACCT 112 Fundamentals of Accounting II 4 FCON 210 Principles of Microeconomics 3 FNCE 287 Principles of Finance 3 **INSY 228** 3 Computer Ethics 3 Accounting Information Systems **INSY 318** 3 **INSY 443** Research Methods in IT INSY 492 Senior Project 3 4 MATH III Business Mathematics I MATH 112 Business Mathematics II. 4 MGMT 141 Business Law I Fundamentals of Management 3 MGMT 230 MGMT 245 **Environment of Business** 3 MGMT 330 Human Resource Management Principles of Marketing MKTG 215 **OFAD 307 Business Communications** STAT 201 Statistics I

3	
3	
3	
3	
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# BACHELOR OF SCIENCE IN NETWORKS AND COMMUNICATION SYSTEMS

#### **SUMMARY**

Total

General Education Courses	43
Core Courses	75
Cognates	36
Electives	6

**GENERAL EDUCATION COURSES**(See General Education section for details)

43 Credits

(	CORE COU	RSE	S 75 Cre	dits
	COSC 161		Programming in C Language	3
	COSC 162		Data Structures and Algorithms	3
	COSC 217		Introduction to	
			Linux Administration	3
	COSC 225		Computer Organization	3
	COSC 237		Networks and	
			Telecommunications	3
	COSC 261		Operating Systems	3 3 3
	COSC 312		Java Programming	3
	COSC 340		Networks Administration	3
	COSC 342		Routing and Switching	3
	COSC 343		Foundations of	
			Human-Computer Interaction	3
	COSC 344		Data and Network Security	3
	COSC 349		Wireless Communications	3
	COSC 350		Network Monitoring	
			and Optimization	3
	COSC 369		IP Telephony and VoIP	3
	COSC 389		Network Programming	3
	COSC 410		Satellite, Optical and Mobile	
			Communication Systems	3
	COSC 438		Information Theory	3
	COSC 440		Artificial Intelligence	3
	COSC 443		Computer Network Design	3
	COSC 499		Practical Experience	3
	INSY 210		Database Management Systems	3
	INSY 214		Web Design and	
			Internet Technologies	3
	INSY 281		Systems Analysis and Design	3
	INSY 497		IT Project Management	3
	INSY 305		Management Information Sysytems	3

160 Credits

#### **COGNATE COURSES 36 Credits** Fundamentals of Accounting I ACCT | | | Neural Networks 3 COSC 497 3 COSC 498 Senior Project ECON 210 Principles of Microeconomics 3 FLCT 201 4 Fundamentals of Electronics Computer Ethics 3 **INSY 228** 3 **INSY 236** Microcomputer Applications **INSY 443** Research Methods in IT 3 Discrete Mathematics 3 MATH 121 3 MATH 341 Boolean Algebra **OFAD 307 Business Communications** STAT 201 Statistics I

ELECTIVE COURSES 6 Credi			
COSC 222		Fundamentals of	
		Software Engineering	3
COSC 272		Object Oriented Design and	
		Programming	3
COSC 316		E-Commerce	3
COSC 345		Advanced Routing and Switching	3
COSC 390		Mobile Application Programming	3
MATH 136		Numerical Analysis I	3
MATH 330		Operations Research I	3
MGMT 230		Fundamentals of Management	3

# BACHELOR OF SCIENCE IN SOFTWARE ENGINEERING

#### **SUMMARY**

General Education Courses	43
Core Courses	60
Cognates	56
Electives	6

Total 165 Credits

# **GENERAL EDUCATION COURSES**(See General Education section for details) 43 Credits

CORE COU	RSI	ES 60 Cr	edits
COSC 161		Programming in C Language	3
COSC 162		Data Structures and Algorithms	3
COSC 171		Visual Basic.NET Programming	3
COSC 221		Software Process Definition	
		and Modeling	3
COSC 222		Fundamentals of	
		Software Engineering	3
COSC 261		Operating Systems	3
COSC 272		Object Oriented Design	
		and Programming	3
COSC 301		Software Requirements	
		Engineering and Specification	3
COSC 304		Formal Methods for	
		Software Engineering	3
COSC 312		Java Programming	3
COSC 343		Foundations of	
		Human-Computer Interaction	3
COSC 421		Software Quality	
		Engineering and Assurance	3
COSC 429		Metrics and Statistical Method	
		for Software Engineering	3
COSC 462		Compiler Construction	3 3 3 3
COSC 498		Senior Project	3
COSC 499		Practical Experience	3
INSY 210		Database Management Systems	3
INSY 214		Web Design and	
		Internet Technologies	3
INSY 28 I		Systems Analysis and Design	3
INSY 305		Management Information Systems	3

#### **COGNATE COURSES 56 Credits** ACCT III Fundamentals of Accounting I COSC 217 Introduction to Linux Administration 3 3 COSC 225 Computer Organization COSC 237 Networks and Telecommunications. 3 COSC 397 Software Project Management 3 COSC 403 3 Real Time Systems 3 COSC 440 Artificial Intelligence 3 **COSC 485** Computer Graphics 3 COSC 497 Neural Networks 3 ECON 210 Principles of Microeconomics **INSY 228** 3 Computer Ethics **INSY 236** 3 Microcomputer Applications 3 **INSY 443** Research Methods in IT 3 Discrete Mathematics MATH 121 3 MATH 341 Boolean Algebra MGMT 230 Fundamentals of Management 3 3 MKTG 215 Principles of Marketing **OFAD 307 Business Communications** 3 STAT 201 Statistics L

<b>ELECTIVE COURSES</b> 6 Cred			
COSC 310	Survey & Analysis of Programming		
	Language	3	
COSC 390	Mobile Application		
	Programming	3	
FNCE 387	Principles of Finance	3	
INSY 318	Accounting Information Systems	3	
INSY 498	Certification Support	3	
MATH 136	Numerical Analysis I	2	
MGMT 330	Human Resource Management	3	
MGMT 335	Human Behavior in Organization	3	
ELCT III	Fundamentals of Electronics	4	

#### MINOR IN COMPUTER SCIENCE 36 Credits

Computer Science is concerned with the application of scientific principles to the design, construction and maintenance of systems based upon the use of computers. The emphasis is on a basic understanding of the computer rather than its role as a tool in other areas of application. This study of the computer as an entity provides the fundamental background needed to understand the ever changing computing environment. This concentration in computer science would lead the student into graduate work in computer science or to employment opportunity in the computer industry or scientific applications.

**Note:** In order to register for a minor in Computer Science, a student must complete the following prerequisites: INSY 107; MATH 101, 102, or 171, 172; STAT 201 and OFTE 120.

CORE COURSES 30 Cred			
COSC 161		Programming in C Language	3
COSC 162		Data Structure and Algorithms	3
COSC 171		Visual Basic.NET Programming	3
COSC 217		Introduction to	
		Linux Administration	3
COSC 225		Computer Organization	3
COSC 261		Operating Systems	3
INSY 210		Database Management Systems	3
INSY 214		Web Design and	
		Internet Technologies	3
<b>INSY 236</b>		Microcomputer Applications	3
INSY 28 I		Systems Analysis and Design	3

Е	ELECTIVE COURSES 6 Credi			
	COSC 272		Object Oriented Design	
			and Programming	3
	COSC 312		Java Programming Language	3
	INSY 443		Research Methods in IT	3
	ELCT 100		Basic Electronics Maintenance	1
	ELCT		Fundamentals of Electronics	2
	INSY 316		E-Commerce	3
	MATH 136		Numerical Analysis I	2
	MATH 330		Operations Research I	2

### MINOR IN MANAGEMENT INFORMATION SYSTEMS

#### 33 Credits

Due to the intensive integration of computer information processing in the business environment, it is essential for business professionals to understand the use of a computer. The thrust of this program is for business professionals who wish to have a more complete background understanding of this important tool. Business systems form a major emphasis in the department. Skills in developing and maintaining business information systems in management plan and control are taught.

The minor provides more than just training in the data processing, but gives basis for future self-development as computers and computer usage evolve.

**Note:** In order to register for a minor in MIS, a student must complete the following prerequisites: INSY 118; ACCT 111, 112, STAT 201; OFAD 307; MATH 111; 112 or MATH 171, 172.

### **CORE COURSES**

### 27 Credits

JUIL JUU	 2, 5, 5	aic.
COSC 161	Programming in C Language	3
COSC 162	Data Structure and Algorithms	3
COSC 225	Computer Organization	3
INSY 210	Database Management Systems	3
INSY 214	Web Design and	
	Internet Technologies	3
INSY 236	Microcomputer Applications	3
INSY 281	Systems Analysis and Design	3
INSY 305	Management	
	Information Systems	3
INSY 316	E-Commerce	3

#### **ELECTIVE COURSES**

#### **6 Credits**

COSC 217	Introduction to	
	Linux Administration	3
ELCT 100	Basic Electronics Maintenance	-
INSY 316	E-Commerce	3
INSY 497	IT Project Management	3

#### **ASSOCIATE DEGREES**

### ASSOCIATE DEGREE IN BUSINESS INFORMATION TECHNOLOGY

#### **GENERAL INFORMATION**

Many organizations are shifting their orientation into an information technology based environment. With new technologies constantly emerging, qualified and experienced IT professionals are in high demand around the world. Many organizations are embracing the use of information systems to tap in on the many benefits that come with IT. Thus, low level trained workers are also needed in various organizations for implementation and maintenance of the technology. The training in this Associate Degree program will meet that need.

# REQUIREMENTS FOR AWARDING THE ASSOCIATE DEGREE

General Education Courses	11
Core Courses	15
Cognates	14
Electives	3
Total	46 Credits

A cumulative GPA of at least 2.00 with no grade less than C-.

### UPGRADE TO DEGREE IN BUSINESS INFORMATION TECHNOLOGY

The program components are majorly what is ordinarily covered in the first two years of a degree in Business Information Technology. This would make it possible for the Associate Degree graduate to further their studies to a degree level by having a direct entry into the third year of the normal degree program in Bachelor of Business Information Technology as long as they have a cumulative GPA of at least 2.25.

### GENERAL EDUCATION COURSES II Credits

ECON 201	Introduction to Principles	
	of Economics	2
ELCT 100	Basic Electronics Maintenance	- 1
ENGL III	Introduction to Writing Skills I	3
HIST 119	Issues in Development Studies	2
HLED 110	Health Principles	- 1
PSYC 101	Introduction to Psychology	2

CORE COURSES 15 Credit				edits
	COSC 171		Visual Basic.NET Programming	3
	INSY 118		Business Information Processing	3
	INSY 214		Web Design and	
			Internet Technologies	3
	INSY 228		Computer Ethics	3
	INSY 236		Microcomputer Applications	3
	COGNATE COURSES 14 Cre			
•	COGNATE	CO	URSES 14 Cre	dits
•	COGNATE ACCT	CO	URSES 14 Cre Fundamentals of Accounting I	edits 4
		CO		
	ACCT III	CO	Fundamentals of Accounting I	4
	ACCT III ECON 210	CO	Fundamentals of Accounting I Principles of Macroeconomics	4
	ACCT III ECON 210 MATH III	CO	Fundamentals of Accounting I Principles of Macroeconomics Business Mathematics I	4 3 4

ļ	ELECTIVE	.00	INSES 3 Cred	IILS
	ACCT 354		Managerial Accounting	3
	COSC 217		Introduction to	
			Linux Administration	3
	ELCT 201		Fundamentals of Electronics	3
	INSY 316		E-Commerce	3

# ASSOCIATE DEGREE IN NETWORKS AND COMMUNICATION SYSTEMS

#### **GENERAL INFORMATION**

Information and Communication Technologies is a booming industry world over. With new technologies constantly emerging, qualified and experienced IT professionals, both low and high level well- trained, are in high demand around the world. This program is an effort to meet this ever growing demand for Network and Communication technicians/administrators.

# REQUIREMENTS FOR AWARDING THE ASSOCIATE DEGREE

General Education Courses 14
Core Courses 27
Cognates 20
Electives 1-3

Total 62-64 Credits

A cumulative GPA of 2.00 with no grade less than C-.

### UPGRADE TO DEGREE IN NETWORKS AND COMMUNICATION SYSTEMS

The program components are majorly what is ordinarily covered in the first two years of a degree in Networks and Communication Systems. This would make it possible for the diploma graduate to further their studies to a degree level by having a direct entry into the third year of the normal degree program in Bachelor of Science in Networks and Communication Systems as long as they have a cumulative GPA of at least 2.5.

### **GENERAL EDUCATION COURSES**I4 Credits ENG | | | Introduction to Writing Skills | 3

	The oddetion to virting skills i	
HIST 119	Issues in Development Studies	2
PSYC 101	Introduction to Psychology	3
PHYC105	Concepts of Physical Science I	3
RELT 255	Introduction to Christian Ethics	2
SOCI 119	Principles of Sociology	- 1

CORE COURSES		27 Credit		
COSC 161		Programming in C		3
COSC 217		Introduction to		
		Linux Administration		3
COSC 225		Computer Organization		3
COSC 237		Networks and		
		Telecommunications		3
COSC 261		Operating Systems		3
COSC 340		Networks Administration		3
COSC 342		Routing and Switching		3
INSY 118		Introduction to Business		
		Information Processing		3
MATH 171		Calculus I		3
	COSC 161 COSC 217 COSC 225 COSC 237 COSC 261 COSC 340 COSC 342 INSY 118	COSC 161 COSC 217 COSC 225 COSC 237 COSC 261 COSC 340 COSC 342 INSY 118	COSC 161 Programming in C COSC 217 Introduction to Linux Administration COSC 225 Computer Organization Networks and Telecommunications COSC 261 Operating Systems COSC 340 Networks Administration COSC 342 Routing and Switching INSY 118 Introduction to Business Information Processing	COSC 161 Programming in C COSC 217 Introduction to Linux Administration COSC 225 Computer Organization COSC 237 Networks and Telecommunications COSC 261 Operating Systems COSC 340 Networks Administration COSC 342 Routing and Switching INSY 118 Introduction to Business Information Processing

(	COGNATE	CO	OURSES 20 Cr	e'	dits	
	ACCT		Fundamentals of Accounting I		4	
	COSC 214		Web Design and			
			Internet Technologies		3	
	COSC 272		Object Oriented Design			
			and Programming		3	
	ELCT 100		Basic Electronic Maintenance		1	
	INSY 236		Microcomputer Applications		3	
	INSY 228		Computer Ethics		3	
	MATH 121		Discrete Math I		3	

ELECTIVE COURSES 1-3 CRED					rs
	ELCT 100		Basic Electronics Maintenance		
	MATH 136		Numerical Analysis I	3	

#### ASSOCIATE DEGREE IN SOFTWARE ENGINEERING

#### **GENERAL INFORMATION**

Information and Communication Technologies is a booming industry world over. With new technologies constantly emerging, qualified and experienced Software developers are in high demand around the world. This program is an effort to meet this ever growing demand for software engineers.

Requirements for awarding the Associate Degree in Software Engineering

General Education Courses	10
Core Courses	24
Cognates	19
Electives	1-3
Total	54-56 Credits

A cumulative GPA of at least 2.00 with no grade less than C-.

### UPGRADE TO DEGREE IN SOFTWARE ENGINEERING

The program components are majorly what is ordinarily covered in the first two years of a degree in software engineering. This would make it possible for the diploma graduate to further their studies to a degree level by having a direct entry into the third year of the normal degree program in Bachelor of Science in Software Engineering as long as they have a cumulative GPA of at least 2.5.

GENERAL EDUCATION COURSES 10 Credit					
	ECON 201		Introduction of Principles		
			of Economics	2	
	ENGL III		Introduction to Writing Skills I	3	
	HIST 119		Issues in Development Studies	2	
	HLED II0		Health Principles	- 1	
	PSYC 101		Introduction to Psychology	2	

CORE COU	RSI	S 24 Cre	edits
COSC 161		Programming in C Language	3
COSC 162		Data Structures and Algorithm	3
COSC 171		Visual Basic.NET Programming	3
COSC 222		Fundamentals of	
		Software Engineering	3
COSC 261		Operating Systems	3
COSC 272		Object Oriented Design	
		and Programming	3
INSY 118		Introduction to Business	
		Information Processing	3
INSY 214		Web Design and	
		Internet Technologies	3

COGNATE COURSES 19 Cred				
	ACCT III		Fundamentals of Accounting I	4
	COSC 217		Introduction to	
			Linux Administration	3
	INSY 228		Computer Ethics	3
	INSY 236		Microcomputer Applications	3
	MATH 121		Discrete Math I	3
	MGMT 330		Fundamentals of Management	3

ELECTIVE COURSES 1-3 Cre				
COSC 225		Computer Organization	3	
ELCT 100		Basic Electronics Maintenance	-1	
MATH 136		Numerical Analysis I	3	
STAT 201		Statistical Method I	3	

#### **COURSE DESCRIPTIONS**

# COSC 161 Programming in C Language 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. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements.

Prerequisites: MATH 102 or equivalent and keyboarding skills of at least 20 wpm.

# COSC 162 Data Structure 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 harsh tables. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be requred to complete a project as part of course requrements. **Prerequisite: COSC 161.** 

# COSC 171 Visual Basic .NET Programming 3 Credits

An introduction to program methodology using Visual Basic. NET, including computer usage within windows environment, problem solving, algorithm development, control I/O function structures, arrays, program style, program design, code documentation techniques. Object oriented programming development of application software using VB.Net. There will be 2 lecture hours and I three hour laboratory each week. Students will be required to complete a project as part of course requirements. *Prerequisite: MATH 102 or MATH 112 or MATH 172.* 

### 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. There will be 2 lecture hours and I three hour laboratory each week. **Prerequisite: INSY 118.** 

# COSC 221 Software Process Definition and Modeling 3 Credits

This course provides students with the fundamental knowledge for software process definition and modeling. Software process content includes a framework for process definition and modeling, 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 modeling, 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 modeling tools, such as State Transition Diagrams, Entry Task Validation Exit, State charts, and Petri Nets, and automated tools for process representation. **Prerequisite: COSC 161 or COSC 171.** 

# COSC 222 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, 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. *Prerequisites: COSC 162 or COSC 171 and COSC 221*.

# COSC 225 Computer Organization 3 Credits

The course covers various elements related to computer organization. Topics covered includes, data representation; number base conversion; representation negative values; representation and manipulation algorithms for integer fractions and floating point-numbers; Boolean algebra; truth table digital logic and circuit representation of basic computational building blocks; introduction to computer architecture; interrupt schemes; an introduction to aspects of systems software including assemblers, loaders and linkers, and operating systems. Assembly language and programming are introduced. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisites: INSY 118 and COSC 161.** 

#### COSC 229 Data Communications 3 Credits

This course introduces the terminology and concepts of data communication systems design and operation. It provides a practical understanding of basic digital communication and transmission techniques, covering fundamentals of information transfer, transmission media and transmission impairment, queuing theory, information theory, modulation and demodulation, coding and decoding. There will be 2 lecture hours and I three hour laboratory each week. **Prerequisites: INSY 118 and COSC 225.** 

### 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: INSY 118.** 

### 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. **Prerequisites: INSY 118 and COSC 225.** 

# 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 (Visual Basic, JAVA, C++). A number of programming exercises are assigned using selected data structures and object oriented design methodologies. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements. **Prerequisites: COSC 161 and COSC 171.** 

# COSC 301 Software Requirements Engineering and Specifications 3 Credits

This course is concerned with the software engineering process of determining what is to be produced and the products generated as a result following the process. requirements, elicitation, analysis/ validation and specification. In-depth study of methods such as Prototyping and Scenario Analysis for requirements elicitation, Object-or Function-Oriented methodologies and Quality Function Deployment for requirements analysis and validation, and standards for requirements specifications. The course also includes use of Computer Aided Software Engineering (CASE) tools and review techniques (e.g., Peer Review, Inspection, Structured Walkthroughs in requirements engineering of software systems. Students participate in individual and group projects on performing software requirements engineering task. In addition, the course requires definition and development of a process guideline for requirements engineering task. Prerequisite: COSC 221.

# 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. *Prerequisites: COSC 222, MATH 121 and MATH 341.* 

# COSC 310 Survey and Analysis of Programming languages

This is a survey of current programming languages, including structure, runtime systems, the specification of syntax, semantics; Techniques for and parsing programming languages; and Automated grammar analysis parsers. A major programming project is required using any programming language other than the ones taught in class. *Prerequisite: COSC 161 and COSC 171 or COSC 312*.

3 Credits

### COSC 312 Java Programming 3 Credits

Java is introduced at an introductory programming level, covering good programming practices, syntax, and object-oriented techniques. The course includes introduction to computers and Java Applets, Developing Java applications, control structures, methods arrays, object-based programming, strings and characters, graphics, basic GUI components, multimedia, Java utility package and bit manipulation. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements.

Prerequisites: COSC 162 and COSC 272. Networks and Communication Systems majors are exempted from COSC 272.

### COSC 340 Networks Administration 3 Credits

An investigation of the tasks of selecting, configuring and administering services in an internetworking environment. 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, including file service, print service, application service, name service, anonymous FTP service, Web service and others. There will be 2 lecture hours and 1 three hour laboratory each week. *Prerequisite: COSC 337 or COSC 217.* 

### COSC 342 Routing and Switching 3 Credits

This course covers router configuration, router software management, routing protocol configuration and routing security. Ethernet switching, configuration of switches, VLANs, STP, and VTP are also covered. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisite: COSC 229.** 

# COSC 343 Foundations of Human-Computer Interaction 3 Credits

This course provides an introduction to skills and concepts of HCl 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.

Prerequisites: INSY 118 and INSY 281.

# COSC 344 Data and Network Security 3 Credits

The covers Fundamentals of Secure Networks, Cryptography, Encryption and Privacy, Public Key, Private Key, Symmetric Key, Authentication Protocols, Packet Filtering, Firewall, Virtual Private Networks and Transport Layer Security. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisites: COSC 217 and COSC 229.** 

# 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. There will be 2 lecture hours and I three hour laboratory each week. **Prerequisite: COSC 342.** 

### 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. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisite: COSC 237.** 

### COSC 350 Network Monitoring and Optimization 3 Credits

This is a laboratory based course that deals with the monitoring and optimization of networks. IT introduces students to tools and techniques for monitoring and optimizing networks. The course provides an overview of the network optimization process and its relation to network planning. The course defines performance criteria, shows how measurement of network performance is done, shows how to analyze and process data collected, then how to use this information to evaluate and optimize network performance. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisite: COSC 342.** 

### COSC 369 IP Telephony and VoIP 3 Credits

This is a laboratory based course that introduces students to the workings of IP telephony and VoIP. The course examines the design, implementation and management of VoIP based telephony systems. This course provides an overview of VoIP technology and the equipment used in a VoIP network. Protocols used in implementing VoIP services are discussed. Students learn how to ensure the highest Quality of Service (QoS) and how to maintain and troubleshoot VoIP services on a TCP/IP based network. Prerequisites: Knowledge of TCP/IP, Linux knowledge, router configuration and routing protocols. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisites: COSC 342 and COSC 217.** 

# COSC 389 Network Programming 3 Credits

This course serves to extend knowledge and understanding of network programming. Using a variety of advanced programming techniques and theory the student will be able to create applications that establish communications across both the Internet and local area networks. The course also covers advanced shell scripting on Linux and routers. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements. **Prerequisites: COSC 217 and COSC 229.** 

# COSC 390 Mobile Application Programming 3 Credits

This project-oriented course examines the principles of mobile application design and development. Students will learn application development on the Android, Simbian or any other platform. Topics will include memory management; user interface design; user interface building; input methods; data handling; network techniques and URL loadingand GPS and motion sensing. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements. **Prerequisites: INSY 214 and COSC 312.** 

# 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 behavioral aspects of project management are discussed. Focus is on management for enterprise-level systems. Software marketing principles is also discussed. *Prerequisite: INSY 281.* 

### COSC 403 Real Time 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. The course includes a term project and reading from literature. **Prerequisites: COSC 225 and COSC 261.** 

# 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. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisites: COSC 229 and ELCT 111.** 

# 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 & V) processes and techniques throughout the software development cycle. Typical products of V & V processes are identified along with their possible V & 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. **Prerequisites: COSC 221 and COSC 301.** 

# 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 STAT 201.

#### 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: INSY 118, 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 Al; Application of Al techniques in natural languages scene analysis, robot planning and some laboratory exercises in Al languages. **Prerequisite: COSC 162.** 

# COSC 443 Computer Network Design 3 Credits

This course teaches students how to perform the conceptual and intermediate design of a network infrastructure given enterprise business and technical requirements and constraints. The student will learn how to come up with desired network solutions comprising of intelligent network services that will achieve effective performance, scalability, and availability. The student will learn the fundamental aspects of network design i.e. addressing, quality of service, security, network management, fine-tuning routing protocols, switching structures, and IP multicast. In addition, this course provides solution models for aspects of the network that are strategic to today's organizations, including IP telephony, content and storage networking, and wireless networking. The course will also touch on improving end-node network performance, security, network reliability, redundancy and high availability architectures. There will be 2 lecture hours and 1 three hour laboratory each week. Prerequisites: COSC 342 and COSC 229.

#### **COSC 462** Compiler Construction 3 Credits

The course covers Language Structure, Lexical and Syntax analysis, Storage allocation for program, subroutine linkage, code generation and optimization; Compilation approaches: Multi pass, Single pass, Load and Go; Compilation implantation: scanning, syntax directed table driven; Work space and dumping; and Simple translator written in course. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be requred to complete a project as part of course requrements. **Prerequisites: COSC 161 and COSC 226 or COSC 225 or COSC 261.** 

### 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, chipping, and hidden line removal. There will be 2 lecture hours and 1 three hour laboratory each week. *Prerequisite: MATH 102 or MATH 171*.

### COSC 497 Neural Networks 3 Credits

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 Cognate of the course consists of the theory and properties of major neural network algorithms and architectures. The students have a chance to implement and try out several of these models on practical problems. This course covers the following topics: Biological Neural Systems Vs. Conventional Serial Computers, pattern recognition theory and decision making, artificial neural networks (perceptrons, hopfields and hamming networks, self organizing techniques, Kohonen networks), adaptive systems (adaptive resonance theory, Botzmann machine, simulated annealing, genetic algorithms, hardware realizations) and neutral network application. *Prerequisites: COSC 440, COSC 237 and MATH 341*.

#### 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 are subjected to both seminar and oral examination on the projects undertaken. **Prerequisite: Junior standing in the department.** 

### COSC 499 Practical Experience 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 manager or director of the company or 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.** 

# 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 the 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 118 Introduction to Business Information Processing 2 Credits

An introduction to the use of computer in the business area. Introduces computer concepts including a discussion of computer history, computer hardware and problem solving algorithms. Information systems for various business application are discussed. It includes hands-on usage of the computer in using a word processor, Spreadsheet, Database, BASIC Programming, email and the internet. **Prerequisite: MATH III or equivalent and typing skills of at least 20 wpm.** 

# INSY 210 Database Management Systems 3 Credits

The course examines basics file processing concepts: the file management concepts, Basicterminology and concepts, Structure of file management systems, Dataflow between systems, Dataflow between internal memory and external storage, blocking and deblocking, files searching and sorting, Introduction to the three major models of databases - hierarchical, network and relational, Database design, setup, manipulation and use are covered. Other issues such as data integrity, security, backup and recovery and database administration are discussed. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements. **Prerequisite: INSY 118.** 

# INSY 214 Web Design and Internet Technologies 3 Credits

The course focuses on creation of web presence and related technologies. The students will learn the basics of designing and developing a web site. The course will cover design issues specific to web-based presentations, web page layout and effective navigation. The course teaches students how to hand-code Web pages using languages like HTML, XHTML, JavaScript, create basic cascading style sheets to control the presentation of a Web page or site, and identify the accessibility and usability issues that influence Web site design. Scripting and markup languages will be introduced as well. The course will also include a study of current Internet technologies and their effects, including web server platforms, various server and client side scripting languages, back end programming for rich Internet Applications. There will be 2 lecture hours and 1 three hour laboratory each week. Students will be requred to complete a project as part of course requrements. Prerequisites: COSC 161 or COSC 171 and INSY 210.

#### **INSY 228** Computer Ethics 3 Credits

Using philosophical and professional ethics as its foundation, this course explores the diverse moral issues surrounding the use of computers and information technology today, with an emphasis on ethical issues that have emerged due to the Internet, Worldwide Web, and growth of the computer software industry. The class starts with a historical examination of ethics and, through research, presentations and discussions, provides opportunity to learn why it is essential to understand the ethical implications of our professional activities. Topics include: global implications of technology, security, intellectual property law and personal responsibility. **Prerequisite: Sophomore standing in the department.** 

### INSY 236 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). There will be 2 lecture hours and 1 three hour laboratory each week. Students will be required to complete a project as part of course requirements. **Prerequisite: INSY 107 or INSY 118.** 

# 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. **Prerequisite: INSY 118.** 

# 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, data base implementations, statistical packages, forecasting programs, and simulations. *Prerequisite: INSY 108 or INSY 108.* 

#### **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 Behavior 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. The student is expected to do a small project. **Prerequisite: INSY 214.** 

# 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. There will be 2 lecture hours and 1 three hour laboratory each week. **Prerequisite: INSY 236.** 

#### INSY 443 Research Methods in IT 3 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: Senior standing.** 

### **INSY 497** IT Project Management 3 Credits

The course covers the factors necessary for successful management of system development or enhancement projects. Both technical and behavioral aspects of project management are discussed such as Project Management Fundamentals, Planning, Estimation and Budgeting Scheduling, Risk and Change Management, Development Management, Project Control, System Test Process, Final Phases & Other Issues. **Prerequisite: INSY 281.** 

### **INSY 498** Certification Support 3 Credits

This course provides background and support necessary for students to pursue various software certification exams such as the MCSE series, CCNA, CCNP and the CNE exams. **Prerequisite: Junior standing in the department.** 

### **INSY 499** Practical Experience 3 Credits

The course is meant 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 manager or director of the company or organization must be submitted at the end. This is a three- month course which must be done during the junior year. **Prerequisite:** 50 hrs practicum already done in the department.

### **DEPARTMENT OF MANAGEMENT**

#### **FACULTY**

Banaga, C. - Chairperson

Mule, A.

Akuno, P.

Bwonda, D.

Idowu, I.

Mambo, R.

Miyayo, Y.

Omondi, R.

Ondari, W.

Otiso, K.

Role, E.

Role, J.

Sang, M

Tiengo, W.

Email: hod management@ueab.ac.ke

#### **PHILOSOPHY**

The Department of Management aims to equip management, marketing economics and office administration students with sound business principles and analytical competence in order to be able to identify and accurately define managerial problems, obtain, organize, and interpret relevant data/information and be able to select and implement decisions efficiently and effectively. The department also aims at integrating business ethics and Christian values.

#### **MISSION**

To nurture students in the Christian philosophy of life and prepare them to become competent, committed, and dedicated managers, marketers, economists and office administrators, in the service of God and humanity.

#### **VISION**

The Management Department envisions being the leader in promoting world class value driven academics and practical excellence, integrating Christian faith and learning and promoting responsiveness to local and global needs in society in line with Christian philosophy.

### DEGREES OFFERED IN THE DEPARTMENT OF MANAGEMENT

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

#### **EXPECTED LEARNING OUTCOMES**

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

- 1. Define the management/marketing/office administration concepts.
- 2. Describe the management/marketing/office administration process
- 3. Explain the marketing/management/office administration as a process used in business to achieve the set objectives of an organization.
- Identify the management/marketing/office administration issues.
- 5. Demonstrate the use of the concepts to solve management problems.
- Design appropriate solution based on thorough analysis of the problem.
- 7. Evaluate the appropriateness of the solutions to the management problems
- 8. Demonstrate the integration of values such as honesty, respect for life, stewardship and integrity in everything they do.
- 9. Demonstrate respect for self through healthful living that desists from use of harmful substances.
- 10. Appreciate the importance of team work and the contribution of each team member.
- II. Continuously strive for mental excellence, develop intellectual curiosity, and maintain an intense desire to reach the highest level of professional skills and self-reliance.
- 12. Make positive contribution through responsible citizenry.

#### **OBJECTIVES OF THE PROGRAM**

The Department strives to attain the following objectives:

- 1. To prepare students for careers in business management, marketing, and office administration.
- 2. To train value-oriented students to serve in private business and the church, institutions, and in government.
- 3. To inculcate in the students the importance of Christian values in all areas of business studies.

#### **ENTRANCE REQUIREMENT**

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 and Office Administration.

#### 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 III and II2 and an average of a C+ in ENGL.III, II2 and II3 of the University of Eastern Africa, Baraton.

#### **GRADUATION REQUIREMENT**

In addition to meeting the university graduation requirements of a minimum overall GPA of 2.00, a student wishing to graduate with a degree of bachelor of Business Administration in Management, Marketing and Office Administration must have obtained a minimum average GPA of 2.25 for all courses in the business core, a minimum average GPA of 2.25 for all courses in the specialization, a minimum average GPA of 2.25 for all courses in the electives, a minimum average GPA of 2.25 for all courses in the minor area and a minimum of eight (8) continuous weeks of practical experience in an established company, approved by the department chairperson. The student must score at least a grade of B- (minus) in practical experience to pass.

### BACHELOR OF BUSINESS ADMINISTRATION IN MANAGEMENT

#### **SUMMARY**

General Education Courses	42
Core Courses	52
Specialization Courses	32
Cognates Courses	18
Electives Courses	6
Total	150 Credits

#### **EXEMPTED COURSES FOR MANAGEMENT**

Students from the department of management shall be exempted from the following general education requirement courses;

MGMT 103	Basic Management and	
	Entrepreneur Skills	2
ECON 201	Introduction to	
	Principles of Economics	2
INSY 107	Information Technology Today	2

•	CORE COU	RSE	S 52 Cre	dits
	ACCT III		Fundamentals of Accounting I	4
	ACCT 112		Fundamentals of Accounting II	4
	ECON 210		Principles of Microeconomics	3
	ECON 211		Principles of Macroeconomics	3
	<b>ECON 328</b>		Money and Banking	3
	FNCE 287		Principles of Finance	3
	INSY 118		Introduction to Business	
			Information Processing	3
	INSY 305		Management Information Systems	3
	MATH III		Business Mathematics I	4
	MATH 112		Business Mathematics II	4
	MGMT 130		Fundamentals of Management	3
	MGMT 141		Business Law I (Mercantile Law)	2
	MGMT 142		Business Law II (Company Law)	2
	MGMT 145		Environment of Business	3
	MKTG 115		Principles of Marketing	3
	MKTG 380		Quantitative Techniques	3
	OFAD 307		Business Communications	2

S	SPECIALIZATION COURSES 32 Credits				
	MGMT 231		Human Resource Management	3	
	MGMT 235		Human Behavior in Organization	3	
	MGMT 255		Management and Organizations	3	
	MGMT 258		Risk Management	3	
	MGMT 356		Business Policy and		
			Decision Making	3	
	MGMT 465		Practical Experience		
			in Management	3	
	MGMT 367		International Management	3	
	MGMT 475		Productions and		
			Operations Management	3	
	MGMT 482		Project Management	3	
	MGMT 491		Business Research Methods I	2	
	MGMT 492		Business Research Methods II	3	

COGNATES COURSES 18 Credi					
FNCE 467		Investment Analysis and			
		portfolio Management	3		
FNCE 470		Financial Management	3		
STAT 201		Statistics I	3		
STAT 202		Statistics II	3		
ACCT 354		Managerial Accounting	3		
INSY 236		Microcomputer Applications	3		
	FNCE 467 FNCE 470 STAT 201 STAT 202 ACCT 354	FNCE 467  FNCE 470  STAT 201  STAT 202  ACCT 354	FNCE 467 Investment Analysis and portfolio Management FNCE 470 Financial Management STAT 201 Statistics I STAT 202 Statistics II ACCT 354 Managerial Accounting		

<b>ELECTIVES COURSES</b> 6 Credits					
	FNCE 390		Financial Markets and Institutions	3	
	FNCE 480		Management of		
			Financial Institutions	3	
	INSY 381		System Analysis and Design	3	
	MGMT 497		Contemporary Issues		
			in Management	3	
	MKTG 484		Distribution, Logistics		
			and Pricing Management	3	
	MKTG 350		International Marketing	3	
			in Management Distribution, Logistics and Pricing Management		

## BACHELOR OF BUSINESS ADMINISTRATION IN MARKETING

### **SUMMARY**

General Education Courses	42
Core Courses	52
Specialization Courses	38
Cognates	15
Electives Courses	6
Total	153 Credits

#### **EXEMPTED COURSES FOR MARKETING**

Students from the department of management shall be exempted from the following general education requirement courses;

MGMT 103	Basic Management and	
	Entrepreneur Skills	2
ECON 201	Introduction to	
	Principles of Economics	2
INSY 107	Information Technology Today	3

<b>CORE COUR</b>	SES 52 Cre	dits
ACCT III	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
<b>ECON 328</b>	Money and Banking	3
FNCE 387	Principles of Finance	3
INSY 118	Introduction to Business	
	Information Processing	3
INSY 305	Management Information Systems	3
MATH III	Business Mathematics I	4
MATH 112	Business Mathematics II	4
MGMT 130	Fundamentals of Management	3
MGMT 141	Business Law I (Mercantile Law)	2
MGMT 142	Business Law II (Company Law)	2
MGMT 145	Environment of Business	3
MKTG 115	Principles of Marketing	3
MKTG 380	Quantitative Techniques	3
OFAD 307	Business Communications	2

SPECIALIZATI	ON COURSES 38 Cre	dits
MKTG 126	Consumer Behavior	3
MKTG 137	Principles and Practices of	
	Retailing and Wholesaling	3
MKTG 240	Customer Care and	
	Relationship Management	3
MKTG 248	Advertising and Promotions	3
MKTG 215	Marketing Management	3
MKTG 350	International Marketing	3
MKTG 266	Sales Management	3
MKTG 375	Industrial Marketing	3
MKTG 416	Strategic Marketing	3
MKTG 465	Practical Experience in Marketing	3
MKTG 484	Distribution, Logistics	
	and Pricing Management	3
MKTG 488	Marketing Research and	
	Product Development I	2
MKTG 499	Marketing Research and	
	Product Development II	3

COGNATE COURSES 15 Credit				
	INSY 316		E-Commerce	3
	MGMT 231		Human Resource Management	3
	MGMT 235		Human Behavior in Organization	3
	STAT 201		Statistics I	3
	STAT 202		Statistics II	3

<b>ELECTIVE COURSES</b> 6 Credits				its
	ECON 310		Intermediate Micro-Economics	3
	FNCE 390		Financial Markets and Institutions	3
	FNCE 467		Investment Analysis and	
			Portfolio Management	3
	MGMT 482		Project Management	3

## BACHELOR OF BUSINESS ADMINISTRATION IN OFFICE ADMINISTRATION

### **SUMMARY**

General Education Courses	40
Core Courses	52
Specialization Courses	40
Cognate Courses	14
Elective Courses	6
Total	152 Credits

# **EXEMPTED COURSES FOR OFFICE ADMINISTRATION**

Students from the department of management shall be exempted from the following general education requirement courses

MGMT 103	Basic Management and	
	Entrepreneur Skills	2
ECON 201	Introduction to Principles	
	of Economics	2
INSY 107	Information Technology Today	3
OFTE 120	Keyboarding	1
MATH 101	Pre-Culculus	3
Or		
MATH 107	Fundamentals of Maths	3

(	CORE COUP	RSE	S 52 Cre	dits
	ACCT III		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 328		Money and Banking	3
	FNCE 387		Principles of Finance	3
	INSY 118		Introduction to Business	
			Information Processing	3
	INSY 305		Management Information Systems	3
	MATH III		Business Mathematics I	4
	MATH 112		Business Mathematics II	4
	MGMT 130		Fundamentals of Management	3
	MGMT 141		Business Law I (Mercantile Law)	2
	MGMT 142		Business Law II (Company Law)	2
	MGMT 145		Environment of Business	3
	MKTG 115		Principles of Marketing	3
	MKTG 380		Quantitative Techniques	3
	OFAD 307		Business Communications	2

S	<b>SPECIALIZA</b>	TIC	ON COURSES	40 Cre	dits
	FREN 001		Beginning French I		0
	FREN 100		Beginning French II		2
	FREN 101		Beginning French III		2
	OFAD 180		Introduction to Typing		2
	OFAD 212		Office Management		3
	OFAD 185		Intermediate Typing		2
	OFAD 200		Advanced Typing		2
	OFAD 314		Records Management		3
	OFAD 313		Office Procedures		3
	OFAD 205		Introduction to Shorthand		2
	OFAD 210		Intermediate Shorthand		2
	OFAD 310		Advanced Shorthand		2
	OFAD 315		Office Administration		
			Ethics and Public Relations		3
	OFAD 457		Personality Development		3
	OFAD 465		Practical Experience		
			in Office Administration		3
	OFAD 476		Front Office and		
			Secretarial Bureau Manager	nent	3
	OFAD 484		Legal and Medical		
			Office Procedures		3

COGNATE COURSES 14 Credit			dits		
	STAT 201		Statistics I	3	
	STAT 202		Statistics II	3	
	MGMT 231		Human Resource Management	3	
	MGMT 491		Business Research Methods I	2	
	MGMT 492		Business Research Methods II	3	
ı	FLECTIVE COLIRSES 6 Credits				

LECTIVE C	UU	rnses o Cred	ITS
INSY 210		Database Management Systems	3
MKTG 215		Marketing Management	3
MGMT 235		Human Behavior in Organization	3

### PREREQUISITES FOR

### NON-BUSINESS MAJORS

17 Credits

A non-business student who desires a minor in Management, Marketing, and Economics should take the following prerequisite courses:

ECON 210	Principles of Microeconomics	3
ECON 211	Principles of Macroeconomics	3
MATH III	Business Mathematics I	4
MATH 112	Business Mathematics II	4
MGMT 130	Fundamentals of Management	3
STAT 201	Statistics I	3
STAT 202	Statistics II	3

### MINOR IN MANAGEMENT

24 CREDITS

CORE COURSES 18 Credit				
	MGMT 231		Human Resource Management	3
	MGMT 235		Human Behavior in Organization	3
	MGMT 255		Management and Organization	3
	MGMT 356		Business Policy and	
			Decision Making	3
	MGMT 475		Production and	
			Operations Management	3
	MKTG 215		Marketing Management	3

E	ELECTIVE COURSES 6 Cr			Credi	edits	
	FNCE 467		Investment Analysis			
			and portfolio Management		3	
	MGMT 258		Risk Management		3	
	MGMT 367		International Management		3	
	MGMT 497		Contemporary Issues			
			in Management		3	
	FNCE 387		Principles of Finance		3	

MKTG 484

MINOR IN MARKETING 24 Credit							
•	CORE COU	18 Credits					
	MKTG 215		Principles of Marketing		3		
	MKTG 226		Consumer Behavior		3		
	MKTG 248		Advertising and Promotion		3		
	MKTG 315		Marketing Management		3		
	MKTG 375		Industrial Marketing		3		
	MKTG 416		Strategic Marketing		3		
<b>ELECTIVE COURSES</b>				6 Credits			
	FNCE 387		Principles of Finance		3		
	MGMT 482		Project Management		3		
	MKTG 237		Principles and Practices of				
			Retailing and Wholesaling		3		
	MKTG 350		International Marketing		3		
	MKTG 366		Sales Management		3		

Distribution, Logistics

and Pricing Management

1	MINOR IN ECONOMICS 24 Cre					
(	CORE COURSES 18 Cr					
	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 465		Economic Development	3		
	ECON 410		Introduction to Econometrics	3		
ELECTIVE COURSES 6 Cred						
	ECON 345		Agricultural Economics	3		
	ECON 420		Public Finance	3		
	ECON 495		Independent Study in Economics	3		
	FNCE 387		Principles of Finance	3		
	ECON 326		International Economics	3		

### **COURSE DESCRIPTIONS**

#### **ECONOMICS COURSES**

# ECON 201 Introduction to Principles of Economics 2 Credits

This is a general requirement course for non-business students and it covers typical issues studied in both Macroeconomics and Microeconomics to demonstrate that economics is a structured way of thinking and looking at the world from an economic stand point. The course covers the following general areas in economics; the problem of economics; economic models and economic theorizing, the use of graphs in economic analysis, the demand and supply models and market structures; economic systems; macroeconomic goals and the role of government in market economy; measurement of macroeconomic aggregates and their relationships in the economy.

# ECON 210 Principles of Microeconomics 3 Credits

This is the first course in the introductory courses in economic theory. It covers the basic concepts in micro-economics and their analysis. The market mechanism: demand, supply and market equilibrium, elasticity, consumer choice and demand, firms and production, profit maximization, market structures, and the factor markets, market imperfection and government intervention.

# ECON 211 Principles of Macroeconomics 3 Credits

This is a course which introduces the students to economic theory covering basic concepts and analysis in macroeconomics. It covers macroeconomic aggregates and their measurements, gross domestic product and economic growth, unemployment and employment, price levels and inflation, national income accounts, national income as an indication of social welfare, aggregate demand and aggregate supply models, the classical model, the Keynesian model of income determination, fiscal policy, economic growth and development. **Prerequisite: Econ 210.** 

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

This is the first course in a series of two courses in mathematical economics. It is an introductory course covering the mathematical tools and techniques and their application in economics. The topics covered include; fundamental techniques of algebra including set theory, linear and non-linear functions, linear models and matrix algebra, derivatives and differentiation, comparative-static analysis, non-constrained optimization problems and their application ineconomics. **Prerequisite: MATH 112 or MATH 171.** 

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

This is the second course in the mathematical economics which is a continuation of ECON 221. The topics covered include: integration and economics dynamics, exponential and logarithmic functions, first-order differential equations, high-order differential equations, first and higher order difference equations, linear and non-linear programming, comparative static analysis, optimization problems. **Prerequisite: ECON 221.** 

# ECON 310 Intermediate Microeconomics 3 Credits

This is a course in micro-economics intended to deepen the student's understanding of the concepts already covered in the introductory courses. It covers the theories of demand and consumer choice, supply production and the theory of the firm; theory of costs and input markets. Market structures, both competitive and non-competitive, general equilibrium and welfare economics are covered. **Prerequisites: ECON 210 and MATH 112 or MATH 171.** 

#### **ECON 315** Intermediate

#### Macroeconomics 3 Credits

This course is concerned with analyzing the economic principles used to model the economy as a whole. It covers the tools and techniques for analyzing aggregate economic behavior and policy formulation in a market economy. It covers aggregate demand and equilibrium income in the Keynesian framework, money, interest and income, the IS-LM model, fiscal and monetary policy, theories of consumption, savings and investments; demand and supply of money; employment, unemployment and output: inflation and economic growth. **Prerequisites: ECON 211 and MATH 112 or MATH 171.** 

### ECON 326 International Economics

#### 3 Credits

Theories of comparative advantage and analysis of factor substitution by the use of Ricardian and Heckscher-Ohlin models, imperfect competition in trade and factor movements, instruments and uses of trade policy, balance of payment accounts and foreign exchange market, foreign exchange rates and interest rates. *Prerequisites: ECON 211 and MATH 112 or MATH 171*.

### ECON 328 Money and Banking 3 Credits

The nature and qualities of money, commercial banking, operation and controls of central banks such as the Central Bank of Kenya, the U.S. Federal Reserve System, money and credit circulation, and effects of monetary policies. **Prerequisites: ACCT 112 and ECON 211.** 

### **ECON 345** Agricultural Economics 3 Credits

The course covers the economics of agricultural production and trade, including population and food policies. Topics include the role of agriculture in economic development, theories of agricultural production, consumer theory, farm planning and control, agricultural marketing and international trade in agriculture, food policies and food security in less developed economies. **Prerequisites: ECON 310 and ECON 315.** 

### ECON 410 Introduction

#### to Econometrics 3 Credits

This course is an introductory survey of econometrics and its applications in business and economics. The topics include probability sampling, hypothesis testing, regression and correlation techniques, the simulation equation models and problems of econometrics. **Prerequisite: STAT 202.** 

#### ECON 420 Public Finance 3 Credits

A study of economic effects of fiscal functions of the public sector on expenditures, revenue controls and indebtedness with special reference to selected tax and budgetary problems like allocation, public debt and development finance. **Prerequisites: ECON 310 and ECON 315.** 

### **ECON 465** Economic

### **Development 3 Credits**

The course covers the study of the development process with special reference to developing countries. The topics covered include theories of economic growth and development, the role of agriculture in the development process, problems of industrialization, population issues and human resource development, the role of savings and investment in development, including foreign aid and trade, and development strategy and planning. **Prerequisites: Senior standing, ECON 310 and ECON 315.** 

## ECON 495 Independent Study in Economics

This is a demonstration of economic investigation conducted on an individual basis. It is an original piece of work on any topic of interest on an 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.** 

3 Credits

#### **MANAGEMENT COURSES**

## MGMT 103 Basic Management and Entrepreneurial Skills 2 Credits

This is a general introductory course to the management and entrepreneurial principles for successfully setting up and managing a business/enterprise. This course is for the non-business majors who need to be equipped to appreciate the challenges of management. The topics covered shall include an overview of the basic principles of: management, bookkeeping, marketing, finance, entrepreneurship, quality management, and business ethics.

# MGMT 130 Fundamentals of Management 3 Credits

An introduction to the concepts, theories and principles of effective management of organizations. Primary emphasis include management functions, resources, forms of organizations and how to organize and operate a business organization.

#### MGMT 141 Business Law I 2 Credits

This is a course in mercantile law and is intended to familiarize the student with the basic laws that cover contracts, sales, partnerships, negotiable instruments, bailment, sureties and bankruptcies.

#### MGMT 142 Business Law II 2 Credits

This is a course in company law and is intended to familiarize students with the basic laws that cover the nature and classification of companies, promotion and formation of companies, memorandum and articles of association, membership, shares, dividends, share capital, winding, amalgamations, etc. **Prerequisite: MGMT 141.** 

### MGMT 145 Environment of Business 3 credits

A study of how business operates within the political, legal, social, cultural, economic, and technological environment; its relationship to government agencies and government controls, and how business relates its activities to various problems, corporate social responsibility and business ethics. **Prerequisite: MGMT 141.** 

## MGMT 231 Human Resource Management 3 Credits

A study of both jobs and people management. Emphasis is on how people are acquired, trained and developed, retained and utilized. Job analysis, job evaluation and job design are discussed so as to fit the job with the people for organizational effectiveness. **Prerequisite: MGMT 130.** 

# MGMT 235 Human Behavior in Organization 3 Credits

The course deals with a study of managers and workers' behavior as well as how both understand each other in order to achieve the goals of the organization. Topics include individuals in organizations and their behavior, interpersonal processes in organizations and behavior, organizational processes and structure, and the effects on the failure in addressing problems of human behavior and their solutions. **Prerequisite: MGMT 231.** 

# MGMT 255 Management and Organization 3 Credits

This course deals in depth with managing functions, planning, organizing, staffing, directing, controlling, communicating, problem-identification and decision-making, with emphasis on their application to different areas of management-marketing, production and operations, financial, and human resource. **Prerequisite: MGMT 130.** 

### MGMT 258 Risk Management 3 Credits

A study of different types, sources and causes of risks both business and personal. It studies how to eliminate/minimize/transfer or avoid risk. It covers topics on risk sharing, risk passing in insurance companies and other agencies. The importance of sound management of insurance plans/risk management, and the government regulations of the insurance/risk management industry are of primary importance. **Prerequisite: MGMT 130.** 

# MGMT 356 Business Policy and Decision Making 3 Credits

Business policy is concerned with those aspects of general management that have material effects on the survival and success of business enterprise. This essentially means that any problem or opportunity (accounting, financial, production, organizational, marketing or human resource), if materially affects firm performance, is of strategic concern. This course is therefore necessarily integrative and interdisciplinary. The goal of this course is to enable students to develop, and/or fine tune skills in the strategic and organizational problems and issue.

Prerequisites: MGMT 255 and MKTG 115.

# MGMT 367 International Management 3 Credits

This course deals with the special problems encountered by executives in the management of international business operations. Among the subjects considered are 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 356.** 

MGMT 475 Production and Operations

Management 3 Credits

This course is mainly concerned with the analysis of problems and issues faced by production/operations managers in manufacturing, merchandising, and service businesses. Concepts and techniques covered include: 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: STAT 202.** 

### MGMT 482 Project Management 3 Credits

This course equips the learner with the competencies to manage projects. The areas covered will include: introduction to project management, managing risks, project organization, financing, resource is planning and scheduling, costing, project implementation, and project proposal writing. **Prerequisite: MGMT 130.** 

## MGMT 491 Business Research Methods I

Methods I 2 Credits ares the students to carry out business rese

The course prepares the students to carry out business research. Areas covered include: research methodology, statistical tools of analysis, citation styles, literature review, academic writing, feasibility, studies and reporting of research findings. **Prerequisite: STAT 202.** 

### MGMT 492 Business Research Method II 3 Credits

The student is expected to do a research project under the guidance of the instructor and produce a research paper. The student is required to defend the paper before a selected team of at least three panelist selected by the course instructor in consultation with the department chair. The student will incorporate the suggestions made at the defense and submit a final copy verified by the instructor and the department chair after which the grade shall be submitted to the registrar. The panelist will grade the paper and the defense based on a set criteria. The defense shall be open to all. **Prerequisite MGMT** 491.

# MGMT 497 Contemporary Issues in Management 3 Credits

This is a demonstration of a study in management issues which are not covered in depth in other courses. This is conducted on an individual basis. It is an original piece of work on any management topic of interest approved and supervised by the instructor concerned. Contemporary issues such as human resource accounting, market liberalization, emerging markets, local industrial policies, organizational size and dynamics in the information age, the role of the business manager in the emerging trade blocks, globalization and other issues. A seminar presentation is required after the investigation. **Prerequisite: Senior standing.** 

#### **MARKETING COURSES**

### MKTG 115 Principles of Marketing 3 Credits

A general survey of the major marketing institutions, programs strategies, and practices examined from the viewpoint of their effects on the exchange process involved in moving goods from producers to ultimate consumers, topics covered will include micro and macro marketing, segmentation strategies, society product, distribution, promotion, and pricing strategies.

Prerequisite: ECON 210.

#### MKTG 126 Consumer Behavior 3 Credits

The topics covered will include: consumer needs assessment, motives and motivation process, psychological perspectives such as psychoanalysis, reinforcements, the influence process, life style analysis, and how it affects purchase behavior. Sociological factors such as social class, family, religion, and their influence on purchase behavior, leaning, perception and theories of cognitive dissonance. **Prerequisite: MKTG 115.** 

# MKTG 137 Principles and Practices of Retailing and Wholesaling 3 Credits

The issues covered in this course will include: locational decisions, choice of type of retail type, in-store management, legal and ethical issues in retailing and wholesaling, pricing techniques and strategies, in-store layout, stocking procedures and policies, customer service policy, relevant accounting, product assortment procedures, inventory management and decisions, telemarketing, and marketing through the internet. **Prerequisite: MKTG 126.** 

# MKTG 215 Marketing Management 3 Credits

This is an investigation of the issues facing the marketing manager and how to manage them. Emphasis will be on the analytical process by which marketing opportunities and environment are translated into marketing plans. The topics covered will include: the marketing management process, opportunity analysis, strategic marketing programs, managing consumers profits, marketing for not for profit, managing the marketing mix, social and ethical issues, e-marketing, integrated marketing communication. **Prerequisite: MKTG 115.** 

# MKTG 240 Customer Care and Relationship Management

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. Customer Relationship Management explains the circular relationship between suppliers, technology, and customers, which together provide the infrastructure for customer support in business environment. This course covers how to select the right tools for your business customer care and relationship management. **Prerequisites: MKTG 115** and MKTG 126.

3 Credits

## MKTG 248 Advertising and Promotion 3 Credits

The areas 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 126 and MGMT 145.** 

### MKTG 266 Sales Management 3 Credits

The topics covered will include: fundamentals of selling, salesmanship, designing, and holding sales meetings, sales forecasting, sales force management including motivation, recruitment and placement, designing and managing the sales territory, sales promotions, accounts management and e-commerce. **Prerequisites: MGMT 130 and MKGT 115.** 

# MKTG 350 International Marketing 3 Credits

The areas covered will include: export/import trade, policies and procedures, entry strategies for international market, international product, price, advertising, packaging, promotion and labeling policies and procedures, international distribution and logistics management, the legal issues in international marketing. **Prerequisite: MKTG 215.** 

#### MKTG 375 Industrial Marketing 3 Credits

Areas to be covered include: the distinction between industrial and consumer marketing, market analysis, selection and segmentation strategies, product, pricing, distribution, promotion, and packaging policies and strategies. **Prerequisite: MKTG 115.** 

## MKTG 380 Quantitative Techniques 3 Credits

Topics covered will include a survey of basic quantitative techniques such as linear programming, elementary transportation, transhipment and assignment models, elementary network analysis including PERT and CPM, and their application to marketing decisions. **Prerequisite: STAT 202.** 

### MKTG 416 Strategic Marketing 3 Credits

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 215.** 

# MKTG 465 Practical Experience in Marketing 3 Credits

Being an eight (8) week practical attachment, the student will be evaluated on the following areas: responsibility, initiative, punctuality, quality of work, interpersonal dynamics, report writing, mastery of the area, and willingness to learn. **Prerequisite: Junior Standing.** 

# MKTG 484 Distribution, Logistics and Pricing Management 3 Credits

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: MKTG 380 or MGMT 475.** 

# MKTG 488 Marketing Research and Product Development I

The course prepares the students to carry out marketing research and undertake new product development. Areas covered include: new product development and research, research methodology, statistical tools of analysis, citation styles, literature review, academic writing, feasibility, studies and reporting of research findings. **Prerequisite: STAT 202.** 

2 Credits

# MGMT 489 Marketing Research and Product Development II 3 Credits

The course is a continuation of MKTG 488. The student is expected to carry out research under the guidance of the course instructor or an expert approved by the course instructor in consultation with the department chair. The student is expected to produce a research paper which the student must defend before a panel of at least three examiners selected by the course instructor in consultation with the department chair. The student is expected to incorporate the comment from the defense and produce a final paper which will be submitted to the department. The grade for this course shall be the average of the grade awarded by the panel of examiners which shall be submitted to the registrar only after the final corrections have been verified by the instructor and the department chair. The defense shall be open to all.

#### **OFFICE ADMINISTRATION COURSES**

### OFTE 120 Keyboarding I Credit

This course is designed to develop skills in manipulating the keyboarding. This includes mastery of the alpha-numeric keyboard, introduction to manuscript typing and to the basic types of letter styles, envelopes, reports, centering tables/columns and memos. Speed, proofreading, neatness, accuracy and attractiveness are emphasized. Speed objective: 25 - 40 words a minute taken in 10 minute.

# OFAD 180 Introduction to Typing

The topics covered will include mastering the alpha numeric keyboard, typing of basic documents such as tables, straight copies, statistical copies and manuscripts of varying complexities, mastery of typing skills in correspondences and mailable materials, proficiency in straight-copy of various complexities. A typing skill of 65 words per minute with 5% error allowance in 5 minutes is expected.

2 Credits

### OFAD 185 Intermediate Typing 2 Credits

This course aims at developing a student to mastery of typing skills with a minimum speed requirement of 65 words per minute. The topics covered will include mastery of typing skills in correspondences and mailable materials, proficiency in straightcopy of various complexities.

### OFAD 200 Advanced Typing 2 Credits

The main emphasis of this course is on more technical typing: display of tabular work, footnotes, correction of signs, use of roman numerals, typing of legal, medical and scientific documents and characters. Minimum typing speed of 75 wpm is expected with 2% error allowance in 5 minutes. *Prerequisite: OFAD* 185.

## OFAD 205 Introduction to Shorthand 2 Credits

This course includes the reading and writing of Pitman shorthand. The ability to read shorthand correctly and to transcribe accurately is emphasized. Intensive copying of shorthand materials from the textbook to develop shorthand writing skills, speed reading, and students' ability to take dictation on practiced materials as well as on new material at a rate of 50 words per minute with a minimum of 5% error in 10 minutes. Also included are the application of the rules of grammar, punctuation, spelling, syllabication, and the development of an adequate business vocabulary. Emphasis is on the mastery of the fundamentals of shorthand.

### OFAD 210 Intermediate

Shorthand 2 Credits

The topics covered in this course will include advanced theories in shorthand, alphabets, phrasing and other abbreviation devices, practice in shorthand recording and transcription with a minimum speed of 80 wpm with a minimum error of 3% in 5 minutes. *Prerequisite: OFAD 205.* 

#### OFAD 212 Office Management 3 Credits

The areas covered in this course will include: organizations, hierarchy, relationships between different levels in the organization, handling the office equipment, telephone systems and equipment, mail handling and correspondence, basic filing techniques, storage, office control procedures, office setting, arrangements, and handling of people.

#### **OFAD 307** Business

#### **Communications** 2 Credits

This course aims to familiarize the students with the principles of effective communication, to develop in them a professional skill in writing effective business letters which include simple reports, minutes of meetings, memos, social-business letters, resolution, petition, and news release. **Prerequisite: ENGL 112.** 

#### OFAD 310 Advanced Shorthand 2 Credits

This course is designed to prepare students to work in any office applying shorthand principles learned in Introduction and Intermediate Shorthand. Emphasis is on speed, office-style dictation such as medical and legal correspondence and mailable transcripts. Speed objective: 100 - 120 words a minute on 5 minute. **Prerequisite: OFAD 210.** 

#### OFAD 313 Office Procedures 3 Credits

The topics covered will include human relations, human behavior in workplaces, 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, issues of integrity and dignity of a secretary. **Prerequisite: OFAD 212.** 

#### OFAD 314 Records Management 3 Credits

This course will cover the following areas: theory of records and records management, creation of records, their safe storage, retrieval, usage of records for decision purposes, safe disposal of records, handling of classified documents and information, the legal issues in classification of documents/information, management of archival materials including different types of archives and acts thereon, circulation of information including safety, confidentiality, security and the preparation of reports from such information. *Prerequisite: INSY 118.* 

# OFAD 315 Office Administration Ethics and Public Relations 3 Credits

The areas covered will include office skills, procedures and responsibilities of an executive secretary/office administrator, theory and practices, office layouts, office supplies, materials management, sourcing and maintenance of office equipments, the law relating to meetings, production and dissemination of reports and minutes, prevention of fraud and office security. It will also cover the psychological, sociological and environmental factors affecting behavior, developing skills to manage the public, designing programs, communication and the role of the media in public relations, media policy, media relationships and publicity and correspondences with the public. It will also cover other issues of ethics such as: telephone ethics, office etiquette, confidentiality, managing interviews, managing office visitors, managing luncheons and cocktails, handling invitations, collecting overdue bills. **Prerequisite: MKTG 115 and OFAD 313.** 

## OFAD 457 Personality Development

3 Credits

The areas 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, intra-personal, inter-ethnic, inter-cultural and cross gender communication, industrial safety, crisis and disaster management, role modeling with Christ as the master model. **Prerequisite: OFAD 315.** 

# OFAD 465 Practical Experience in Office Administration 3 Credits

Being a practical attachment, the supervisors are expected to evaluate the student on the following areas: responsibility initiative, punctuality and interest, quality of work, mastery of subject matter, inter-personal dynamics, report writing, and eagerness to learn. A minimum of 320 hours on a continuous basis is required in the organization offering attachment. **Prerequisite: Junior standing.** 

### OFAD 476 Front Office and

Secretarial Bureau

Management 3 Credits

The areas covered include site selection, convention and visitors bureaus, convention/conference centers, international meetings, program planning, promotion and publicity, housing and reservations, registration and information, meeting and function rooms, food and beverage, audio-visuals, exhibits, emergencies and fire safety, accounting, contracts and insurance, meeting evaluation, automated office, and ethics. Each student is required to be exposed in lodging industries for at least 8 hours a week. **Prerequisites: OFAD 310 and OFAD 457.** 

### OFAD 484 Legal and Medical Office Procedures 3 Credits

This course designed to prepare students for employment either in a medical office or in a legal office. It is designed to give students an understanding of what a medical and legal office is like, how it functions, and its personnel for an intelligent performance of secretarial duties. Secretarial ethics, office procedures, and typing as well as basic information about law terms and miscellaneous legal procedures are included. Each student is required to be exposed in legal and medical institutions for at least 8 hours a week. **Prerequisite: MGMT 141.** 









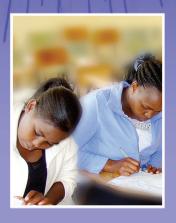


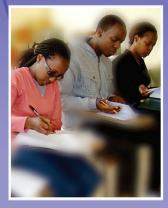












# SCHOOL OF EDUCATION



### **SCHOOL OF EDUCATION**

#### **DEAN - Makewa, Lazarus Ndiku**

**Email:** dean SoE@ueab.ac.ke

#### INTRODUCTION

The School of Education is made up of two Departments. The Department of Educational Administration, Curriculum and Teaching, and the Department of Psychology. It offers a bridging course for Secondary School leavers who did not make it to university yet had potentials to do so; Certificates in Counselling psychology; Diploma in Adult Education; Diploma in Counselling Psychology; Diploma in Education; Bachelor of Arts in Counselling Psychology; Bachelor of Education (Arts); Bachelor of Education (Science); Master of Education; and Doctor of Philosophy in Education.

#### **PHILOSOPHY**

The School of Education operates on the Seventh-day Adventist world view 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. This leads students into self actualization and to discover and understand the truth through critical thinking.

#### **MISSION**

The school of Education provides and advances 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 for service to God and humanity.

#### **VISION**

The School of Education envisions being a leading centre of excellence in higher education and research producing world-class teachers, counsellors, Curriculum experts, school administrators and psychologists equipped with moral virtues.

#### **EXPECTED LEARNING OUTCOMES**

Graduates of the School of Education should be able to:

- I. Provide counselling skills needed in the contemporary society;
- 2. Teach in primary, secondary, and tertiary institutions of learning;
- 3. Uphold sound professional ethics for counsellors, teachers, curriculum planners, and educational administrators;
- 4. Lead educational institutions and organizations;
- 5. Design and develop documents on curriculum at school, district, county, national and regional levels;
- 6. Carry out and supervise research work with intentions to create new and relevant knowledge.

### DEGREES AND DIPLOMAS OFFERED BY THE SCHOOL OF EDUCATION

#### **DOCTOR OF PHILOSOPHY**

- 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.

#### **MASTER OF EDUCATION**

- I. Master of Education (MEd) with specialisation in Educational Administration;
- 2. Master of Education (MEd) with specialisation in Curriculum and Teaching.

#### **POST GRADUATE DIPLOMA**

• Post Graduate Diploma in Education (PGDE)

#### **BACHELORS**

- I. Bachelor of Arts (BA) in Counselling Psychology
- 2. Bachelor of Education (B.Ed) Arts
- 3. Bachelor of Education (B.Ed) Science

#### **MINORS**

- I. Minor in Counselling Psychology
- 2. Minor in Health Psychology
- 3. Minor in Psychology

#### **DIPLOMAS**

- 1. Diploma in Adult Education
- 2. Diploma in Education
- 3. Diploma in Counselling Psychology

#### **CERTIFICATE**

• Certificate in Counselling Psychology

#### **PRE - UNIVERSITY**

• Bridging programme

### ackslashDEPARTMENT OF EDUCATIONAL ADMINISTRATION, CURRICULUM AND TEACHING

#### **FACULTY**

Hotamo, Fanta Hollamo -Chairman Achoka, J. -Visiting Professor

Amimo, C. Ayiemba, G. J. Balyage, Y. Kinuthia, B.

Lisso, T. -Part time
Manu, P. -Visiting Professor

Muchee, T. Mwangi, P. Ndiku, L. M.

Odek, S. Ojwan'g, M.

Role, E. -part time Role, J. -Part time

Tieng'o, E. Vymeister, S.

Wasonga, T. -Visiting Professor

Email: hod curriculum@ueab.ac.ke

### **PHILOSOPHY**

The Department of Educational Administration, Curriculum and Teaching operates on the Seventh-day Adventist world view 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. This leads students into self actualization and to discover and understand the truth through critical thinking.

-Part time

#### **MISSION**

The Department of Educational Administration, Curriculum and Teaching provides and advances 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 for service to God and humanity.

#### VISION

The Department of Educational Administration, Curriculum and Teaching envisions to be a leading centre of excellence in higher education and research producing world-class teachers, educational administrators, and curriculum experts equipped with moral virtues.

#### **EXPECTED LEARNING OUTCOMES**

Graduates of the department of educational administration, curriculum and teaching should 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, work 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;
- Compare and contrast educational system in Kenya with those of selected countries in Africa, Europe, Asia and America:
- II. 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.

### DEGREES AND DIPLOMAS OFFERED BY THE DEPARTMENT

- i) Pre-University (bridging course)
- ii) Diploma in Adult Education
- iii) Diploma in Education
- iv) Bachelor of Education (Arts)
- v) Bachelor of Education (Science)
- vi) Bachelor of Education (Primary)
- vii) Post Graduate Diploma in Education
- viii) Master of Education (Curriculum and Teaching)
- ix) Master of Education (Educational Administration)
- x) Doctor of Philosophy (PhD) in Education (Curriculum and Teaching)
- xi) Doctor of Philosophy (PhD) in Education (Educational Administration)

### **BACHELOR OF EDUCATION (SECONDARY)**

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

#### **EXPECTED LEARNING OUT COMES**

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

- I. 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 specialisation;
- 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. Utilise techniques and methods of teaching appropriate to students' abilities in subjects of their specialisation;
- 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 farther studies in education or any other subject area of their specialisation.

#### **ENTRY REQUIREMENTS**

For admission into the Bachelor of Education programme the applicant must meet university entrance requirements (a minimum mean grade of C+ at secondary school certificate level or division II and two A-level principal passes). An applicant who had an accumulative mean grade of C at KCSE and pursued a two or three years diploma in education from a government recognised institution is also qualified for admission. 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 educational administration, curriculum and teaching to be trained as teachers, must do so during the first and second years of their programmes, and must have passed the subjects they wish to teach after graduation with a minimum grade of C+ at KCSE or its equivalent.

### TEACHING SUBJECTS

Students selecting this degree are required to enrol 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.

#### I) BACHELOR OF EDUCATION (ARTS)

Students seeking a Bachelor of Education (Arts) degree select from the following options:

- Religion;
- History;
- Geography;
- Business Studies;
- English language and literature;
- Kiswahili:
- French:
- Literature;
- Music.

Students planning to take English Language must take Literature in English too. 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 either Kiswahili or French are advised to take a second teaching subject in Religion, History or Geography.

### II) BACHELOR OF EDUCATION (SCIENCE)

Students must select the two science teaching subjects from the following options:

- Biology;
- Chemistry;
- Physics;
- Mathematics;
- Home Science;
- Geography;
- Computer science;
- Agriculture;
- Technology can be taken as an option only if the candidate plans to teach in a Polytechnic College.

Students choosing technology option are required to take either automotive or electronics as their first teaching subject and Computer Science as their second teaching subject.

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

# REQUIREMENTS FOR TEACHING PRACTICE 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.

- I. In order to qualify for teaching practice, the student teacher is expected to have completed:
  - a) all the prescribed general education courses with a GPA of 2.00,
  - b) at least 90% of required professional courses (including EDPC 302; EDTE 105, EDTE 151, EDTE 210, EDTE 225, EDTE 390 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 90% 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.

#### **BACHELOR OF EDUCATION**

### **GENERAL EDUCATION COURSES** 25 - 30 Credits

**Note:** Education students are exempted from courses most of whose content are covered in other courses within the Education curriculum. These include BIOL 105 Human Biology; ENVI 227 Environment and Society; HELD 110 Health Principles; PSYC 101 Introduction to Psychology; SOCI 121 Principles of Sociology; ECON224 Principles of Economics; HIST 111 Concepts of World Civilization; EDUC 215 Philosophy of Christian Education and PEAC 107 Physical and Recreational Games.

CORE (PROFESSIONAL) COURSES FOR A BACHELOR OF EDUCATION 65 credits						
TEACHER EDUCATION 23 Credits						
	EDTE 105		Introduction to the			
			Teaching Profession	3		
	EDTE 170		Health Education and Life Skills	3		
	EDTE 210		Curriculum Development			
	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 390		Micro-Teaching	2		
			5	_		
E		IAP	L PSYCHOLOGY 9 Cred			
	EDPC 106		Educational Psychology	3		
	EDPC 238		Human Growth			
			and Development	3		
	EDPC 239		Educational Guidance			
			and Counselling	3		
ı	EDUCATIONAL FOUNDATIONS 21 Credits					
•	EDFO 120	1	History of Education	3		
	EDFO 250		Philosophy of Education	3		
	EDFO 280		Sociology and Comparative	J		
	LDI O 200		Education	3		
	EDFO 400			3		
	EDFO 400		Educational Policy and	3		
	EDEO 401		Management  Planaire and Francisco of	3		
	EDFO 401		Planning and Economics of	2		
	EDEO 402		Education	3		
	EDFO 402		Environmental Education	3		
	EDFO 403		Entrepreneurship Education	3		
E	LECTIVES	CO	URSES 6 Cred	lits		
	EDTM 311		Special Methods in			
			Teaching History and government	3		
	EDTM 312		Special Methods in			
			Teaching Religious Education	3		
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EDTM 315	Special Methods in	
	Teaching Literature in English	3
EDTM 316	Special Methods in	
	Teaching Kiswahili Language	3
EDTM 318	Special Methods in	
	Teaching French 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 330	Special Methods in	
	Teaching Technology	3
EDTM 331	Special Methods in	
	Teaching Music	3
EDTM 337	Special Methods in	
	Teaching Physical Education	3
EDTM 338	Special Methods in	
	Teaching Computer Science	3

**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. Each of the subject teaching methods has four extra contact hours per week of laboratory in order to review the secondary school syllabi of the two selected subjects to be taught. The practical exercises designed to be taught in secondary schools within the two areas of specialization are to be reviewed.

Teaching English Language

Teaching Geography government

Special Methods in

Special Methods in

EDTM 313

**EDTM 314** 

3

3

# TEACHING PRACTICE 6 Credits EDTE 399 Teaching Practice in Secondary School 6

Prerequisite: EDPC 106, EDPC 239, EDPC 106, EDTE 105, EDTE 210, EDTE 255, EDTE 326, EDTE 390, 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.

### **BACHELOR OF EDUCATION (ARTS)**

# BACHELOR OF EDUCATION (ARTS) IN TEACHING ENGLISH LANGUAGE AND LITERATURE

General Requirement Course	30
Specialization (Language and Literature)	96
Core (Professional) Courses	65
Total	191 Credits

### GENERAL EDUCATION COURSES 30 Credits

(See the section under General Education Requirement for details)

### TEACHING ENGLISH LANGUAGE AND

LITERATORI	5 90 Cre	eaits
ENGL 140	The Art of Writing	3
ENGL 141	Introduction to Linguistics	3
ENGL 142	Phonetics and Phonology	3
ENGL 144	Introduction to English Grammar	3
ENGL 145	English Grammar and Usage	3
ENGL 241	Morphology	3
ENGL 244	Discourse Analysis	3
ENGL 341	Trends in the Development	
	of English Language	3
ENGL 342	Sociolinguistics	3
ENGL 347	Language Acquisition	3
ENGL 349	Syntax	3
ENGL 441	Semantics and Pragmatics	3
ENGL 442	Language and Gender	3
ENGL 445	Historical and Comparative	
	Linguistics	3
ENGL 470	Research Project I	3
ENGL 471	Research Project II	3

LITE 152	Literary Language and	
	Scholarly Presentation	3
LITE 156	East African Prose Fiction	3
LITE 157	East African Drama and Poetry	3
LITE 220	Oral Literature	3
LITE 257	European Literature	3
LITE 260	Children's Literature	3
LITE 265	Introduction to Theatre Arts	3
LITE 345	Linguistics and the Study	
	of Literature	3
LITE 352	Theories and Stylistics	3
LITE 354	Contemporary Poetry	3
LITE 363	The African Novel	3
LITE 451	Major Author	3
LITE 453	Literary Studies of the English Bible	3
LITE 455	Theory and Research Skills in	
	Oral Literature	3
LITE 456	Caribbean Literature	3
LITE 465	Creative Writing	3

## BACHELOR OF EDUCATION (ARTS) IN TEACHING GEOGRAPHY

#### **SUMMARY**

General Education Courses	30
Teaching Geography	50
Second Teaching Subject	48
Core (Professional Courses)	65
Total	193 Credits

#### GENERAL EDUCATION COURSES 30 Credits

See the General Education Section for details

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**Note:** Students taking Geography concentration must select HIST 111, they are however, exempted from ENVI 229.

TEACHING GEOGRAPHY 50 Cred			edits	
GEOG 100		World Regional Geography		3
GEOG III		Fundamentals of		
		Physical Geography I		3
GEOG 112		Fundamentals of		
		Physical Geography II		3
GEOG 121		Fundamentals of		
		Human Geography I		3
	GEOG 100 GEOG 111 GEOG 112	GEOG 100 GEOG 111 GEOG 112	GEOG III Fundamentals of Physical Geography I GEOG II2 Fundamentals of Physical Geography II GEOG I2I Fundamentals of	GEOG 100 World Regional Geography GEOG 111 Fundamentals of Physical Geography I GEOG 112 Fundamentals of Physical Geography II GEOG 121 Fundamentals of

GEOG 122	Fundamentals of	
	Human Geography II	3
GEOG 130	Introduction to Cartography,	
	Map work and Surveying	3
GEOG 221	Air photo Interpretation	
	and Remote Sensing	3
GEOG 225	Statistics and Quantitative	
	Techniques in Geography	3
GEOG 300	Research Methods in Geography	3
GEOG 311	Geography of Kenya	3
GEOG 313	Geography of East Africa	3
GEOG 314	Geography of Africa	3
GEOG 330	Climatology and Meteorology	3
GEOG 334	The Arid and Semi Arid Lands	3
GEOG 411	Geography of Natural Hazards	3
GEOG 455	People, Land and Food	3

## BACHELOR OF EDUCATION (ARTS) IN TEACHING HISTORY

#### **SUMMARY**

General Education Courses	30
Teaching History	48
Second Teaching Subject	48
Core (Teaching Professional Courses)	65
Total	191 Credits

### **GENERAL EDUCATION COURSES**

See the General Education Section

TEACHING HISTORY	48 Credits
I LACI III 10 I III I OILI	io Ci caits

HIST 120	History of Kenya I: to 1900	3	
HIST 121	History of Kenya II: Since 1900	3	
HIST 200	History of USA I	3	
HIST 201	History of USA II	3	
HIST 130	History of Africa I: Before 1900	3	
HIST 131	History of Africa II: Since 1900	3	
HIST 225	History of Europe I (1789-1919)	3	
HIST 227	History of Europe II (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	2	
HIST 415	History of Science and Technology	2	

HIST 445	Historical Research Methods	2
HIST 490	Independent Study	3
POLS 310	Politics and Government in Kenya	3

#### **ELECTIVE COURSES**

#### 3 Credits

(Get an appropriate course from the Department of History in level 4 courses)

## BACHELOR OF EDUCATION (ARTS) IN TEACHING RELIGION

#### **SUMMARY**

General Education Courses	30
Teaching Religious Education	48
Second Teaching subject	48
Core (Professional Courses)	65
Total	191 Credits

#### **GENERAL EDUCATION COURSES** 30 Credits

**Note:** Religion majors take RELB 320 in place of RELB 220, and RELT 423, RELT 424 in place of RELT 207 and RELH 227 in place of RELH 155.

### **TEACHING RELIGIOUS EDUCATION** 48 Credits

RELB I I O	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 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
RELH 280	History of the Christian	
	Church in Africa	2
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

**30 Credits** 

RELT 333	Sociology of Religion	2
RELT 334	African Theological Thought	2
RELT 380	Philosophy of Religion	2
RELT 389	Issues in Religion and Science	2
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2

#### **ELECTIVE COURSES**

4 Credits

May be chosen from Upper-division RELB or RELT series

## BACHELOR OF EDUCATION (ARTS) IN TEACHING KISWAHILI

#### **SUMMARY**

General Education Courses	30
Kiswahili as a Teaching Subject	48
Second Teaching Subject	48
Core (Professional) Courses	65

Total 191 Credits

#### GENERAL EDUCATION COURSES

30 Credits

### **TEACHING KISWAHILI**

**48 Credits** 

ľ	LACILITO	171	TO CIT	cuits
	KISW 110		Introduction to Linguistics	
			in Kiswahili	3
	KISW 200		Historical and Modern	
			Development of Kiswahili	3
	KISW 210		Kiswahili Phonetics and Phonology	3
	KISW 220		Kiswahili Morphology	3
	KISW 230		Theory and Analysis	
			of Kiswahili Literature	3
	KISW 250		Theories of Syntax in Kiswahili	3
	KISW 260		Communication	
			Skills in Kiswahili	3
	KISW 270		Kiswahili Short Stories	3
	KISW 280		Kiswahili Drama	3
	KISW 300		Advanced Syntax in Kiswahili	3
	KISW 320		Sociolinguistics in Kiswahili	3
	KISW 340		Kiswahili Poetry	3
	KISW 350		Kiswahili Oral Literature	3
	KISW 360		Kiswahili Novel	3
	KISW 420		Semantics and Pragmatics	
			in Kiswahili	3
	KISW 430		Creative Writing in Kiswahili	3

### BACHELOR OF EDUCATION (ARTS) IN TEACHING MUSIC

Students taking a Bachelor of Education in Music - B.Ed. - Arts (Music) degree must take the teaching subjects from the Department of Music.

#### **TEACHING FRENCH**

For teaching subject area requirements in French, the candidate should cross-check with the Department of Languages and Literature.

### **BACHELOR OF EDUCATION (SCIENCE)**

## BACHELOROFEDUCATION (SCIENCE) INTEACHING AGRICULTURE

#### **SUMMARY**

General Education Courses	30
Teaching Agriculture	48
Second Teaching Subject	48
Core (Professional) Courses	65
Total	191 Credi

### GENERAL EDUCATION COURSES 30 Credits

ľ	TEACHING	Α	GRICULTURE 40 Cr	edits
	AGRIC 101		Crop Production Skills	- 1
	AGRIC 102		Animal Production Skills	- 1
	AGRIC 108		Introduction to Agriculture	- 1
	AGRIC 116		Agriculture	2
	AGEN 115		Introduction to Farm Machinery	
			and mechanization	3
	AGEN 332		Irrigation and Drainage	3
	AGEC 345		Agricultural Economics	3
	ANSC 211		Introduction to Animal Science	3
	ANSC 411		Poultry Science	3
	ANSC 442		Dairy Production	3
	ANSC 323		Animal Breeding	3
	OR			
	CPSC 325		Plant Breeding	3
	CPSC 213		Introduction to Soils	3
	CPSC 314		Crop Production I	3
	CPSC 325		Crop Production II	3
	CPSC 373		Soil and Water Conservation	2
	HORT 312		Olericulture	3

<b>ELECTIVE COURSES</b> 8			8 Credits	
AGEN 235		Tractor Operations and		
		Maintenance	2	
AGRI 300		Projects in Agriculture		
ANSC 227		Artificial Insemination	2	
ANSC 411		Poultry Science	3	
ANSC 442		Dairy Production	3	
CPSC 314		Crop Production I	3	
CPSC 321		Weed Science	3	
CPSC 378		Sustainable and		
		Conservation Agriculture	2	
HORT 312		Olericulture	3	

# BACHELOR OF EDUCATION (SCIENCE) IN TEACHING CHEMISTRY

**Note:** Students taking Chemistry as a first teaching subject are advised to take Biology as a second teaching subject if they did and passed both subjects at KCSE.

#### **SUMMARY**

General Education Courses	30
Teaching Chemistry	48
Second Teaching Subject	48
Core (Professional) Courses	65
Total	191 Credits

#### **GENERAL EDUCATION COURSES** 30 Credits

TEACHING	CI	HEMISTRY 52 Cro	edits
CHEM 121		General Chemistry I	4
CHEM 122		General Chemistry II	4
CHEM 141		Inorganic Chemistry I	3
CHEM 161		Physical Chemistry I	3
CHEM 211		Organic Chemistry I	4
CHEM 212		Organic Chemistry II	4
CHEM 242		Inorganic Chemistry II	3
CHEM 251		Analytical Chemistry I	3
CHEM 300		Introductory Biochemistry	3
CHEM 341		Coordination Chemistry of	
		the Transition Elements	3
CHEM 313		Intermediate Organic Chemistry	3
CHEM 363		Electrochemistry	3
CHEM 443		Bioinorganic Chemistry	3
CHEM 461		Metallurgy	3

CHEM 464	Applied Chemical	
	Thermodynamics	3
CHEM 450	Spectroscopic Methods in	
	Chemical Analysis	3

## BACHELOR OF EDUCATION (SCIENCE) IN TEACHING BIOLOGY

Students taking Biology as a teaching subject are advised to take Chemistry as the second teaching subject.

#### **SUMMARY**

General Education Courses	30
Teaching Biology	48
Second Teaching Subject	48
Core (Professional) Courses	65
Total	191 Credits

#### GENERAL EDUCATION COURSES 30 Credits

**Note:** Students with Biology concentrations are exempted from HLED 110 and BIOL 105.

TEACHING BIOLOGY 48 Credit					
	BIOL 151		Foundations of Biology I	3	
	BIOL 152		Foundations of Biology II	3	
	BIOL 153		Foundations of Biology III	3	
	BIOL 176		Introduction to Microbiology	3	
	BIOL 246		Introduction to Biotechnology	3	
	BIOL 286		General Ecology	3	
	BIOL 293		Cell Biology	3	
	BIOL 296		History and Philosophy of Biology	3	
	BIOL 447		Molecular Biology	3	
	BIOL 449		Genetics	3	
	BIOL 450		Biology Seminar	2	
	ZOOL 464		Systems Physiology	4	

### **ELECTIVES** 15 Credits

At least 2 of these courses must have a BOTN prefix and at least 2 must have a ZOOL prefix. Students to select from any of the three groups to make up for the remaining credits.

### **Group A (Environmental Biology)**

BIOL 200	Natural History of Kenya	3
BIOL 315	Introduction to Marine Biology	3
BIOL 344	Hydrobiology	3

<b>BOTN 374</b>	Systematic Botany	3	
<b>ZOOL 322</b>	Invertebrate Zoology	3	
<b>ZOOL 333</b>	Ichthyology	3	
<b>ZOOL 334</b>	Herpetology	3	
<b>ZOOL 336</b>	Ornithology	3	
<b>ZOOL 338</b>	Mammalogy	3	
ZOOL 342	Entomology	3	
Group B (Morphological Biology)			
	1 0 0//		
BOTN 320	Plant Anatomy	3	
		3	
BOTN 320	Plant Anatomy		
BOTN 320 ZOOL 310	Plant Anatomy Comparative Vertebrate Anatomy	3	
BOTN 320 ZOOL 310 ZOOL 365	Plant Anatomy Comparative Vertebrate Anatomy Histology	3	
BOTN 320 ZOOL 310 ZOOL 365 ZOOL 396 ZOOL 448	Plant Anatomy Comparative Vertebrate Anatomy Histology Mammalian Anatomy	3 3 3	

# BACHELOROFEDUCATION (SCIENCE) INTEACHING HOME SCIENCE

#### **SUMMARY**

**BOTN 432** 

**ZOOL 384** 

General Education Courses	30
Teaching Home Science	48
Second Teaching Subject	48
Core (Professional) Courses	65
Total	191 Credits

Plant Physiology

Animal Behaviour

### GENERAL EDUCATION COURSES 30 Credits

**Note:** Students with a specialization in Home Science are exempted from HLED 110 and BIOL 105.

TEACHING HOME SCIENCE 48 Credit			
HOSC 115	Creative Needle Work	3	
HOSC 120	Introduction to		
	Food Preparation (with lab)	3	
HOSC 150	Clothing Construction I (with lab)	3	
HOSC 210	Resource Management in		
	the Family	3	
HOSC 215	Clothing Construction II (with lab)	3	
HOSC 230	Nutrition and Health	3	
HOSC 235	Pattern Drafting	3	
HOSC 250	Child Development and Growth	3	
HOSC 270	Family Living	3	

Personal Hygiene and	
Good Grooming	3
Design for Living	3
Meal Preparation and	
Management	3
Food Demonstration Skills	3
Public Health and	
Community Nutrition	3
Tailoring	3
Quantity Food Management and	
Production	3
	Good Grooming Design for Living Meal Preparation and Management Food Demonstration Skills Public Health and Community Nutrition Tailoring Quantity Food Management and

### BACHELOROFEDUCATION (SCIENCE) INTEACHING MATHEMATICS

#### **SUMMARY**

3

3

General Education Courses	30
Teaching Mathematics	48
Second Teaching Subject	48
Teaching Professional Courses	65
Total	191 Credits

### **GENERAL EDUCATION COURSES** 30 Credits

(See general requirements section)

**Note:** students with mathematics concentration must select MATH 161 instead of MATH 107. They are however exempted from STAT 201 since it is included as a core course.

٠	<b>TEACHING</b>	M	ATHEMATICS 48 Cre	dits
	MATH 121		Discrete Mathematics	
			and its application	3
	MATH 136		Numerical Analysis I	3
	MATH 171		Calculus I	3
	MATH 172		Calculus II	3
	MATH 271		Linear algebra	3
	MATH 275		Calculus III	3
	MATH 278		Vector Analysis	3
	MATH 330		Operations Research I	3
	MATH 361		Real Analysis I	3
	MATH 365		Number Theory	3
	MATH 372		Ordinary Differential Equations	3
	MATH 441		Abstract Algebra I	3
	MATH 471		Geometry I	3
	MATH 475		Complex Analysis	3

MATH 480	Functional Analysis	3
STAT 205	Probability Theory	
	and Its applications	3
	and its applications	)

TEACHING PHYSICS 48 Cred					dits
	PHYS 151		General Physics I		3
	PHYS 152		General Physics II		3
	PHYS 156		Vibrations and Waves		3
	PHYS 158		Introduction to Mechanics		3
	PHYS 220		Optics		3
	PHYS 225		Classical Mechanics		3
	PHYS 240		Modern Physics		3
	PHYS 250		Electricity and Magnetism		3
	PHYS 33 I		Quantum Mechanics		3
	PHYS 341		Solid State Physics		3
	PHYS 351		Electromagnetic Theory		3
	PHYS 361		Mathematical Physics I		3
	PHYS 400		Solar Energy Physics		3
	PHYS 403		Thermodynamics		3
	PHYS 405		Electronics		3
	PHYS 425		Materials Science		3

## BACHELOROFEDUCATION (SCIENCE) INTEACHING TECHNOLOGY

Students who would like to take technology as a teaching subject should consult with the Department of technology for the teaching subjects.

# BACHELOR OF EDUCATION (SCIENCE) WITH TEACHING CONCENTRATION IN COMPUTER SCIENCE

For teaching subject area requirements in Computer Science, the candidate should cross-check with the Department of Information Systems and Computing.

# BACHELOR OF EDUCATION (BUSINESS) WITH TEACHING CONCENTRATION IN BUSINESS STUDIES

For teaching subject area requirements in Business Studies, the candidate should cross-check with the Department of Accounting and the Department of Management

#### **BACHELOR OF EDUCATION**

(Upgrading from Diploma in Education)

#### **ENTRANCE REQUIREMENTS**

The Department of Educational Administration, Curriculum and Teaching offers a Bachelor of Education (Primary option) degree to teachers holding a Diploma in Primary or Secondary School Teaching and who have been in the teaching profession or a related assignment for not less than two years. Graduates of this programme are trained to teach in primary schools. Students under this program enrol for either a Bachelor of Education (Science) or a Bachelor of Education (Arts). The students admitted into the Bachelor of Education programme should:

- I. Hold a Secondary School Certificate with either a grade of C or C+. (Candidates with a Secondary School certificate with a grade below C must possess a Diploma in Education);
- 2. Hold a two and half years Primary or Secondary Teacher's Diploma taken after passing School Certificate Examinations;
- 3. Have a minimum of two years experience in teaching.

#### **COURSE IN-TAKE**

Bachelor of Education (teaching Certificate holder entrants) students may join regular students in the regular trimester. They may also join in school holidays scheduled by the Ministry of Education in Kenya in November/December, April, and August. Information on dates can be obtained from the Registrar's office or the Department of Educational Administration, Curriculum and Teaching.

#### DURATION OF THE COURSE

The Bachelor of Education degree (Primary option) 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 programme in a minimum period of five and half years and maximum of seven years. Courses taken after seven years must be repeated.

### **TEACHING SUBJECTS**

Students seeking entrance into this programme must enrol in two teaching subjects taught at primary school level. The recommended categories are

- 1. Science which includes mathematics, physics, chemistry, biology, geography, computer science and agriculture.
- 2. Languages that covers English Language and literature. Kiswahili language is supposed to be taken with history, geography or religion.
- 3. Arts which include religion, history, geography and business education.

Teaching subjects are similar to those taken for B.Ed. (Secondary). The student must draw the subjects under the guidance of the Department Chairperson of Educational Administration, Curriculum and Teaching and other two Department Chairpersons of the University under which a student draws the first and second teaching subject areas of study.

### **REQUIREMENTS FOR GRADUATION**

In addition to the general requirements for graduation of the University, students taking a teaching degree in Primary Option must do a minimum of 15 semester credits in English language including writing and communication skills, psychology of Child Development, a course in Guidance and Counselling, methods of teaching in primary school and teaching practice.

#### TEACHING PRACTICE

For students admitted into this programme with a Primary 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.

- I. In order to qualify for teaching practice, the student teacher is expected to have completed
  - a. all the general education courses required for them with a minimum GPA of 2.00;
  - b. at least 90% of the first and second teaching subjects being pursued with a minimum GPA of 2.25; and

- c. at least 90% 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;
- 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.

#### **COURSE LISTING**

#### **SUMMARY**

General Courses	30
First teaching subject	48
Second teaching subject	48
Teaching Professional Courses	53
Total	179 Credits

#### GENERAL EDUCATION COURSES 30 Credits

(See General Education Section for details)

**Note:** Students taking a first or second teaching subject in Religion are supposed to take RELB 320 instead of RELB 220 under Religion as a GR.

# CORE (PROFESSIONAL COURSES) FOR BACHELOR OF EDUCATION (UPGRADING FROM DIPLOMA IN EDUCATION)

(BEd-Primary Diploma in Education Entrants) 53 Credits

TEACHER EDUCATION 17 Cre		
EDTE 210	Curriculum Development	3
EDTE 255	Principles and Methods	
	of Teaching	3
EDTE 301	Educational Communication and	
	Technology	3
EDTE 315	Research Methods in Education	3
EDTE 326	Educational Measurement	
	and Evaluation	3
EDTE 390	Micro-Teaching	2

dits
3
3
3

EDUCATIONAL FOUNDATIONS 19 Credit			
EDFO 250	Philosophy of Education	3	
EDFO 280	Sociology and		
	Comparative Education	3	
EDFO 400	Educational Policy		
	and Management	3	
EDFO 401	Planning and Economics		
	of Education	3	
EDFO 402	Environmental Education	3	
EDFO 403	Entrepreneurship Education	3	
	EDFO 250 EDFO 280 EDFO 400 EDFO 401 EDFO 402	EDFO 250 Philosophy of Education EDFO 280 Sociology and Comparative Education EDFO 400 Educational Policy and Management EDFO 401 Planning and Economics of Education EDFO 402 Environmental Education	

#### **ELECTIVE COURSES**

**EDTE 463** 

**6 Credits** 

Students taking a Bachelor of Education (Primary option) shall be required to take relevant methodology course(s) applied to teaching in primary school:

TEACHING PRACTICE 3 Credits		
EDTM 353	Language Teaching Methods	
EDTM 352	Social Studies Teaching Methods	
EDTM 351	Science Teaching Methods	

**Teaching Practice** 

(Prerequisites: EDPC 106, EDPC 239, EDTE 105, EDTE 210, EDTE 255, EDTE 326, EDTE 390, 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)

### **SUBJECT EXEMPTION**

Students taking a Bachelor of Education who entered into the programme with a Diploma in Education taken after completing Secondary School will be exempted from 15 credits of professional education courses as follows:

EDTE 105	Introduction to the	
	Teaching Profession	3
EDFO 120	History of Education	3
EDTE 170	Health Education and Life Skills	3
EDFO 215	Philosophy of Education	3
EDTE 397	Teaching Practice	3

### COURSE DESCRIPTIONS

### 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 centres 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 programme, 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 programme).

### **EDFO 120** 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. History of education in pre-colonial and post colonial Kenya, Uganda and Tanzania.

## EDFO 250 Philosophy of Education

This course discusses a background to the study of philosophy for students pursuing a Bachelor of Education degree programme. 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. Nietzesche, Karl Marx, Julius Nyerere, Milton Obote, Kwame Nkrumah, Robert Mugabe and their influence on the educational systems of the world.

3 Credits

# 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 120, EDPC 250 and EDPC 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 macro economics; 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 120, EDPC 250 and EDPC 280.* 

### EDFO 402 Environmental Education 3 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 120, EDPC 250 and EDPC 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 120, EDPC 250 and EDPC 280

### **EDPC 106** Educational Psychology 3 credits.

This course explains the basic concepts in 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 behaviour, intelligence, motivation, emotions, perception, sensation and learning; Application of psychological concepts and principles of learning; motivation; retention and transfer of learning.

# EDPC 238 Human Growth and Development 3 credits

This course presents the concepts of Human development: biological, social, cultural and ecological development; childhood adolescence, and adulthood development; theories of development: Physical, motor, emotional, mental, moral, language and personality development; relationship between growth, development and education. **Prerequisite: EDPC** 106.

# EDPC 239 Educational Guidance and Counselling 3 credits

This course presents the concepts and significance of guidance and guidance; methods and procedures in guidance and counselling; ethics in guidance and counselling; theories of guidance and counselling; career and occupational awareness; psychological and social factors underlying individual differences. **Prerequisite: EDPC 106.** 

# EDTE 105 Introduction to the Teaching Profession 3 Credits

This course provides a basic orientation to the expectations of the teaching profession, basic classroom skills, professional ethics, vision 2030, student discipline; concepts of effective and ineffective teaching and learning; the functions of a teacher in the Christian and secular world views; the teacher and student evaluation; teacher behaviour, child rights, student and teacher strike, education and national development, globalization and functional learning. School classroom observations will be part of this course. (Students taking this class are required to go for a field trip).

### EDTE 170 Health Education and Life Skills 3 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 oneself; living with others, effective decision making; living values. **Prerequisites: EDPTE 105 and 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: EDPTE 105, EDTE 170 and EDPC 106.** 

### EDTE 255 Principles and Methods of Teaching 3 Credits

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 inteaching. **Prerequisites: EDPTE 105, 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 the teacher in training to communication models and theories in learning; effective communication: visual, verbal and non-verval; 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: EDPTE 105*, *EDTE 210, EDTE 255, EDPC 106 and EDPC 238*.

#### EDTE 333 Research Methods in Education 3 Credits

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 trimesters for data collection and analysis. **Prerequisites: EDTE 105 and EDTE 210.** 

### EDTE 326 Educational Measurement and Evaluation 3 Credits

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. **Prerequisites: EDTE 255.** 

### EDTE 390 Micro-Teaching 2 Credits

This course give a hands on experience of teaching in a classroom setting. Students will be required to prepare schemes of work, lesson plans, and record of work in the classroom setting and then present lessons in the two teaching subjects 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 326, and two EDTM courses in relevant areas. (Students taking this course are required to go for a field trip for observational purposes).** 

### **EDTE 397** 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. (This course is an exemption designed for students who took either a certificate or a diploma in education so that they take EDTE 398 with 3 credits).

### **EDTE 398** Teaching Practice 3 Credits

This is a course that gives the student teacher pursuing a Bachelor of Education (primary option) more experience in the classroom in either a primary or secondary school for a minimum period of 12 to 13 weeks. The student prepares, teaches and evaluates the work of his/her pupils, under the supervision of cooperating teachers in the subject areas. The students are expected to develop scheme of work and lesson plans. The studentteacher is bound to all the school activities of the cooperating school for the time he/she is practicing teaching. Student are assessed by the teachers from the School of Education, and the subject teachers who have a teaching training background from individual Departments of the University responsible for the teaching subjects. Students are also be examined by an external examiner recommended by the Department of Educational Administration, Curriculum and Teaching and the School of Education and approved by the Administrative Board of the University. External examination starts during the ninth week of practicing teaching. **Prerequisites: EDTE 310**, EDTE 326, EDTE 390, EDPC 238, EDPC 239 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.

# EDTE 399 Teaching Practice in Secondary Schools 6 Credits

This is a course that 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, 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 Educational Administration, Curriculum and Teaching and the School of Education and approved by the Administrative Board of the University. **Prerequisites: EDTE** 310, EDTE 326, EDTE 390, EDPC 106, EDPC 238, EDPC 239 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

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: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

3 Credits

# EDTM 312 Special Methods in Teaching Religious Education

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: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

3 Credits

# 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 emphasised. *Prerequisites: EDTE 105, EDTE 210, 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 microteaching to sharpen their delivery skills. Cognisance is made of the fact that English language and literature are integrated in the Kenya Secondary School System. *Prerequisites: EDTE 105*, *EDTE 210*, *EDTE 326*, *EDPC 106*, *EDPC 238*, *ENGL 141*, *ENGL 142*, *ENGL 144* and *ENGL 348*.

# 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 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 analysing literary works. Cognisance is made of the fact that literature and language are integrated in the Kenya Secondary School system. *Prerequisites: EDTE 105, EDTE 210, EDTE 326, EDPC 106, EDPC 238, ENGL 151, ENGL 156, ENGL 157, and ENGL 220.* 

# EDTM 316 Special Methods in Teaching Kiswahili Language

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. Cognisance is made of the fact that literature and language in Kiswahili are integrated in Kenya Secondary School system. **Prerequisites: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

3 Credits

## EDTM 318 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. **Prerequisites: EDTE 105, EDTE 210, 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. Prerequisites: EDTE 105, EDTE 210, 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. **Prerequisites: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

# EDTM 323 Special Methods in Teaching Home Science

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: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

3 Credits

# 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. *Prerequisites: EDTE 105, EDTE 210, 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. *Prerequisites: EDTE 105, EDTE 210, 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. **Prerequisites: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

# EDTM 329 Special Methods in Teaching Business Studies

The course deals with various methods and strategies of teaching business studies, such 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: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

3 Credits

# EDTM 330 Special Methods in Teaching Technology 3 Credits

The course deals with various methods and strategies of teaching practical arts such as wood work, 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: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

## EDTM 331 Special Methods in Teaching Music 3 Credits

The course deals with various methods and strategies of teaching music. Students will be taught how to develop schemes of work and lesson plans that demonstrate creative methods of teaching music addressing the cognitive, affective, and psychomotor domains of instruction. Methods to be discussed will include inductive and deductive teaching, lecture, discussion, drill, assignments, small study groups, demonstration, project, and others **Prerequisites: EDTE 105, EDTE 210, EDTE 326, EDPC 106 and EDPC 238.** 

# EDTM 337 Special Methods in Teaching Physical Education 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. *Prerequisites: EDTE 105, EDTE 210, 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. **Prerequisites: EDTE 105, EDTE 210, 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 school.

Prerequisites: EDTE 105, EDTE 210, 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. *Prerequisites: EDTE 105, EDTE 210, 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. *Prerequisites: EDTE 105, EDTE 210, EDTE 326, EDPC 10 and EDPC 238.* 

## PEAC 107 Physical and Recreational Activities | I Credit

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, soft ball, basket ball, valley ball, 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, crabstretch 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.

### POST-GRADUATE DIPLOMA IN EDUCATION

The Department of Educational Administration, Curriculum and Teaching 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 programme 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 programme. 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 enrol for a PGDE programme.

#### **EXPECTED LEARNING OUTCOMES**

After going through a post graduate diploma course in Education, students should be able to:

- I. 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.

#### **COURSE LISTING**

#### **SUMMARY**

Educational Foundations	9
Educational Comm. and Technology	12
Educational Administration and	
Curriculum Development	6
Subject Teaching Methods	6
Teaching Practice	4
Total	37 Credits

#### **EDUCATIONAL FOUNDATION**

#### 9 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

### EDUCATIONAL COMMUNICATION AND TECHNOLOGY

#### **12 Credits**

-		12 01	Caics
	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

### EDUCATIONAL ADMINISTRATION AND CURRICULUM DEVELOPMENT 6 Credits

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	EDAD 521	Educational Management		
		and Planning		3
	EDUC 531	Curriculum Planning		
		and Development		3

### **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.

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 Cre		4 Cred	lits
EDTE 590	Teaching Practice		4

#### **COURSE DESCRIPTIONS**

**EDFO 501 Historical and Philosophical Foundations** 

of Education 3 Credit

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 Aguinas, 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 centres around 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, modelling) 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 skewdness 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 programmed instruction, direct instruction and simulation.

### EDTE 545 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, audiovisual 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.

## 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 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 programmes 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.

# 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 curriculum and improving the already existing one. The role of the Kenya Institute of Education, and other agencies in curriculum development.

## 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 emphasised. *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 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 wood work, 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 570 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 microteaching to sharpen their delivery skills. Cognisance 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 analysing literary works. Cognisance 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. Cognisance 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. 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 course from EDTM 560 to EDTM 578.* 

### **DEPARTMENT OF PSYCHOLOGY**

### **FACULTY**

Ruto, D. -Chairperson

Bwana, D.

Balyage, Y. -(part time)

Chepkwony, C. Malayi, A. Onyango, N.

Tiengo, E. -(part time)

**Email:** hod psychology@ueab.ac.ke

### **PHILOSOPHY**

The Department of Psychology operates on the Seventh-day Adventist world view 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. This leads students into self actualization and to discover and understand the truth through critical thinking.

### **MISSION**

The Department of Psychology provides and advances 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 for service to God and humanity.

### **VISION**

The Department of Psychology envisions to be a leading centre of excellence in higher education and research producing world-class counsellors and psychologists equipped with moral virtues.

### PROGRAMS OFFERED BY THE DEPARTMENT

- 1. Bachelor of Arts in Counselling Psychology
- 2. Associate Degree in Counselling Psychology
- 3. Minor in Counselling Psychology
- 4. Minor in Psychology
- 5. Minor in Health Psychology

#### **EXPECTED LEARNING OUTCOMES**

Graduates of the Department of Psychology should be able to:

- I. Define terminologies applied in psychology including: psychology, counselling, 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 counselling as academic areas of study;
- 4. Discuss concepts and major theories of human behaviour, growth, personality and learning;
- 5. Identify major theories of counselling and psychotherapy;
- 6. Use appropriate counselling techniques in the process of helping clients resolve problem situations;
- 7. Carry out group and individual counselling on social, educational, economic and personal concerns;
- 8. Organise counselling sessions on drug abuse (dependency), vocational (career) counselling, adolescent counselling, mid life crisis, pre-marital and marital counselling, academic counselling, gerontology, crisis intervention and cross-cultural issues;
- 9. Establish counselling relationships (rapport) between counsellors and clients:
- Relate the influence of genetic and environmental factors on human behaviour;
- II. Demonstrate qualities of an effective psychologist/counsellor such as honesty, punctuality, respect, confidentiality, hard work, self control and truthfulness;
- 12. Practice professional ethics for psychologists and counsellors;
- 13. Demonstrate an application of counselling in a variety of settings such as schools, hospitals, rehabilitation centres, counselling centres, VCT centres, churches, and prisons;
- 14. Analyse client problem situations by using appropriate testing (psychological) instruments;
- 15. Apply a Christian approach to counselling;
- 16. Carry out research aimed at improving counselling services:
- 17. Organise, administer and manage counselling services;
- 18. Pursue graduate and post-graduate programmes to improve their counselling skills

### **CAREER OPPORTUNITIES**

Counselling, as a profession, prepares the student for possibilities in social services, employment agencies, industry, hospitals, educational institutions, clinics, rehabilitation centres, private practice, NGOs, public and international organizations, business organizations, international humanitarian organizations, church organizations, etc.

# ADMISSION REQUIREMENT FOR BACHELOR OF ARTS IN COUNSELLING PSYCHOLOGY AND ASSOCIATE DEGREE IN COUNSELLING PSYCHOLOGY

To be admitted to the programme, the student must:

- I. Meet the general entry requirements for admission to the University of Eastern Africa, Baraton. (Presently the minimum entry requirement is a mean grade of C+ in KCSE examination or two principal passes and two subsidiaries at 'A' levels). OR
- 2. A minimum of 5 credits and a pass in English in KCE, OR
- 3. A pass in Mature Age entry examination administered by the university, OR
- 4. A pass in the University's Pre-university program.

For each of the programmes, a minimum grade of C- must be attained in all the core courses and cognates and a minimum cumulative GPA of 2.00 is required on a student's total credit hours to graduate.

**Note:** The associate degree can be upgraded into a Bachelor of Arts degree in Counselling Psychology without loss of credits.

### **INTER-DEPARTMENTAL TRANSFER**

Those transferring from other Departments are required to have a minimum of C plain in PSYC 101(Introduction to Psychology) and SOCI 119 (Principles of Sociology) for major in Counselling Psychology.

### **GRADUATION REQUIREMENTS**

See "Requirements for Graduation" section of the university bulletin for details.

## BACHELOR OF ARTS IN COUNSELLING PSYCHOLOGY

### **SUMMARY**

**CORE COURSES** 

General Requirement Courses	47-49
Core courses	52
Electives	10
Cognates	12
Minor	23-25
Total	146-150 Credits

### GENERAL EDUCATION COURSES 47-49 Credits

See "General Education Requirements" section for details. Counselling Psychology majors should not choose PSYC 101 Introduction to Psychology from section (g) as the contents of this course are covered in PSYC 110 General Psychology I and PSYC 111 General Psychology II.

52 Credits

CORE COORSES 32 Cred			cuits
	PSYC 110	General Psychology I	2
	PSYC III	General Psychology II	2
	EDPC 122	Foundations of Counselling	3
	EDPC 126	HIV/AIDS Counselling	2
	EDPC 150	Techniques of Counselling	3
	EDPC 238	Human Growth	
		and Development	3
	EDPC 262	Abnormal Psychology	2
	EDPC 270	Ethics in Counselling	2
	EDPC 275	Christianity and Counselling	3
	EDPC 295	Premarital Counselling	3
	EDPC 385	Child and Adolescent Counselling	3
	EDPC 386	Group Counselling	2
	EDPC 387	Marriage and Family Counselling	3
	EDPC 391	Theories of Personality	2
	EDPC 393	Concepts of	
		Chemical Dependency	3
	EDPC 396	Depression and	
		Stress Management	2
	EDPC 397	Current Theories in	
		Counselling and Psychotherapy	3
	EDPC 398	Organizational Psychology	2
	EDPC 480	Counselling Research Methods	3
	EDPC 484	Cross-Cultural Counselling	2
	EDPC 489	Counselling Practicum	2

#### **12 Credits COGNATE COURSES DEST 100** Concepts and History 2 of Development RELT 426 Writings and Philosophy of E.G. White 2 2 SWCA 356 Child and Spouse Abuse SWHS 473 3 Human Sexuality SWPC 410 3 Parent/Child Relationship

ELECTIVE COURSES 10 Credi			edits
	EDPC 119	Principles of Self Esteem	2
	EDPC 185	Career Choice	2
	EDPC 255	Counselling the Aging	2
	EDPC 280	Academic Counselling	2
	EDPC 331	Counselling Services Management	2
	EDPC 333	Chemical Dependency	
		in Diverse Populations	2
	EDPC 465	Topics in Counselling	2
	EDPC 482	Psychological Testing	
		and Assessment	2

### **ASSOCIATE DEGREE IN**

## COUNSELLING PSYCHOLOGY 75 Credits

GENEKAL EL	OUCATION COURSES 26 cre	edits
BIOL 105	Human Biology	2
ECON 201	Introduction to principles	
	of Economics	2
EDUC 215	Introduction to Philosophy of	
	Christian Education	2
ENGLIII	Introduction to Writing Skills I	2
ENGL112	Introduction to Writing Skills II	2
ENGL113	Speech Communication	2
HIST III	Concepts of World Civilization	2
HLEDII0	Health Principles	- 1
INSY 107	Information Technology Today	2
MGMT 103	Basic Management and	
	Entrepreneurial Skills	2
PEAC 105	Physical Education	- 1
RELB 220	Life and Teachings	
	of Jesus-General	2
RELT 255	Introduction to Christian Ethics	2
SOCI 120	Introduction to Sociology	2

(	COGNATE CO	OURSES 6 cred	lits	
	RELT 426	Writings and Philosophy		
		of E.G. White	2	
	SWCA 356	Child and Spouse Abuse	2	
	SWPC 410	Parent/Child Relationship	2	
CORE COURSES 39 Credit				
	EDPC 122	Foundations of Counselling	3	
	EDPC 126	HIV/AIDS Counselling	2	
	EDPC 150	Techniques of Counselling	3	
	EDPC 238	Human Growth		
		and Development	3	
	EDPC 262	Abnormal Psychology	2	
	EDPC 270	Ethics in Counselling	2 3 3	
	EDPC 295	Premarital Counselling	3	
	EDPC 385	Child and Adolescent Counselling	3	
	EDPC 386	Group Counselling	2	
	EDPC 393	Concepts of Chemical		
		Dependency	3	
	EDPC 396	Depression and		
		Stress Management	2	
	EDPC 397	Current Theories in		
		Counselling and Psychotherapy	3	
	EDPC 431	Counselling Services Management	2	
	EDPC 489	Counselling Practicum	2	
	PSYC 110	General Psychology I	2	
	PSYC III	General Psychology II	2	
ELECTIVE COURSES 4 Credits				
	EDPC 119	Principles of Self Esteem	2	
	EDPC 175	Career Choice	2	
			_	

ELECTIVE COURSES 4 Cred		dits	
	EDPC 119	Principles of Self Esteem	2
	EDPC 175	Career Choice	2
	EDPC 275	Christianity and Counselling	3
	EDPC 280	Academic Counselling	2
	EDPC 387	Marriage and Family Counselling	3

SWMD 275

MINOR IN COUNSELING PSYCHOLOGY 26 Credits				
CORE COURSES 16 Credit:				
EDPC 122 EDPC 150 EDPC 238	Foundations of Counselling Techniques of Counselling Human Growth		3	
EDPC 262 EDPC 391 EDPC 397	and Development Abnormal Psychology Theories of Personality Current Theories in Counselling and Psychother	anv	3 2 2	
COGNATE CO	-	3 Cred	_	
SWPC 410	Parent/Child Relationship	3 Cred	3	
		7 Cua d		
EDPC 126		7 Cred	2	
EDPC 126 EDPC 270 EDPC 295 EDPC 386	HIV/AIDS Counselling Ethics in Counselling Premarital Counselling		2 3 2	
EDPC 387	Group Counselling  Marriage and Family Counse	elling	3	
MINOR IN PSY	,	25 Cre	dits	
CORE COURS		18 Cre	dits	
EDPC 150 EDPC 238	Techniques of Counselling Human Growth		3	
EDPC 262	and Development Abnormal Psychology		3 2	
EDPC 391	Theories of Personality		2	
EDPC 484	Cross-Cultural Counseling	~l	2	
PSYC 340 PSYC 393	Motivation and Behaviour Cognition	Lnange	2 2	
PSYC 450	Cognition Social Psychology		2	
COGNATE CO	URSE	3 Cred	lits	

<b>ELECTIVE COURSES</b> 4 Credits				
	EDPC 119	Principles of Self Esteem		2
	EDPC 317	Psychology of the		
		Exceptional Child		2
	EDPC 393	Concepts of Chemical		
		Dependency		2
	EDPC 482	Psychological Testing		
		and Assessment		2
MINOR IN HEALTH PSYCHOLOGY 26 Credit				
CORE COURSES 26 Credit				

CORE COURS	ES 26 Cr	edits
EDPC 126	HIV/AIDS Counselling	2
EDPC 150	Techniques of Counselling	3
EDPC 262	Abnormal Psychology	2
EDPC 333	Chemical Dependency in	
	Diverse population	2
EDPC 374	Crisis Counselling	2
EDPC 386	Group Counselling	2
EDPC 393	Concepts of Chemical	
	Dependency	3
EDPC 396	Depression and	
	Stress Management	2
PSYC 340	Motivation and Behaviour Change	2
PSYC 450	Social Psychology	2
PSYC 488	Topics in Health Psychology	2
PSYC 496	Senior Project in	
	Health Psychology	2

COGNATE COURSES (none)
ELECTIVE COURSES (none)

Marriage Dynamics and Growth 3

### **COURSE DESCRIPTIONS**

### **COUNSELING COURSES**

## EDPC 106 Educational Psychology

### 2 Credits

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 behaviour, intelligence, motivation, emotions, perception, sensation and learning; application of psychological concepts and principles; theories of learning; retention and transfer of knowledge.

### EDPC 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, Basics of growing, Accepting that you aren't perfect, Taking stock of your character, and Preparing for setbacks.

## EDPC 122 Foundations of Counselling

### 3 Credits

The course is a survey of the counselling profession and provides knowledge, skills and attitudes for beginning counselling students. The functional dynamics of process model, principles of counselling, counselling process, counselling 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 counselling is established.

### EDPC 126 HIV/AIDS Counselling 2 Credits

The course equips learners with skills that enable them to provide counselling, 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.

## EDPC 150 Techniques of Counselling

### 3 Credits

The course introduces learners to the techniques used in counselling practice. These include Attending Behaviour, 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 EDPC 122*.

### EDPC 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. 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.

## 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 239 Educational Guidance and Counselling 3 credits

Concepts and significance of guidance and counselling; methods and procedures in guidance and counselling; ethics in guidance and counselling; theories of guidance and counselling; career and occupational awareness; psychological and social factors underlying individual differences.

## EDPC 245 Psychology of Child Development 3 Credits

The course is a study of the way in which a child develops can be applied in the teaching – learning process. The main aspects of development that are addressed include Physical, Motor, Speech, Social, Moral, Play, Sex-role and Personality development. **Prerequisites: EDTE 151, EDTE 255 and EDPC 106.** 

### **EDPC 255** Counselling the Aging 2 Credits

The course deals with the analysis of typical psychological, physical and social problems in the lives of the aged, as well as the role played by counselling. 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 EDPC 122.* 

### EDPC 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/Lateonset disorders and Schizophrenia are discussed. A field trip to a facility dealing with mentally sick individuals is helpful. **Prerequisites: PSYC 110 and PSYC 111.** 

### **EDPC 270** Ethics in Counselling 2 Credits

The course addresses philosophical foundations of ethics in the counselling 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 counselling. *Prerequisites: PSYC 110, PSYC 111 and EDPC 122.* 

## EDPC 275 Christianity and Counselling 3 Credits

In this course, Biblical as well as Theological themes in counselling 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 counselling, the counsellor, personal issues, developmental issues, interpersonal issues, identity issues, family issues and spiritual issues are also discussed. **Prerequisites: PSYC 110, PSYC 111 and EDPC 122.** 

### **EDPC 280** Academic Counselling 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 counselling in learning institutions, attributes of the school counsellor, problem of 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.

## EDPC 295 Pre-marital Counselling 3 Credits

The course discusses the importance of pre-marital counselling 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.

## EDPC 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 EDPC 238.

## EDPC 331 Counselling Services Management 2 Credits

The course deals with basics of developing, organizing, administering and maintaining a Counselling program indifferent settings such as schools, churches, hospitals, rehabilitation centres 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, EDPC 122 and EDPC 150.* 

## EDPC 333 Chemical Dependency in Diverse Populations 2 Credits

The course is a continuation of EDPC 414 and discusses chemical dependency (drug abuse) among specific populations. Emphasis is given to etiology, treatment and prevention of the behaviour, and populations addressed include the Disabled, the Elderly, Adolescents, Athletes, the Military, and dual-diagnosis patients. *Prerequisites: PSYC 110, PSYC 111, EDPC 122, EDPC 150 and EDPC 393.* 

### EDPC 374 Crisis Counselling 2 Credits

The course explores basic issues in crisis counselling 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 counselling: The history and techniques of crisis counseling; Understanding the role of a crisis counselor; Dealing with pregnancy, birth and child bearing; Dealing with physical illness, death and grief; Dealing with the crisis of suicide; Dealing with family dysfunctions; Dealing with crisis in prepuberty and adolescence, young adult age, middle age and old age crises are some of those that are addressed.

### EDPC 385 Child and Adolescent Counselling 3 Credits

The course addresses typical problems faced by children and adolescents and examines specific counselling theories and methods used in helping them. Play, Narratives, Story telling, Art, Group Counselling, Family therapy, and Solution-focused approaches are emphasized. *Prerequisites: PSYC 110, PSYC 111 and EDPC 122.* 

### **EDPC 386** Group Counselling 2 Credits

The course is a study of the dynamics experienced 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 EDPC 122.** 

## EDPC 387 Marriage and Family Counselling 3 Credits

The course deals with what marriage is, biblical and societal 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 be covered in this course. While emphasizing a Biblical model, overviews of marriage enrichment and informational resources for practical applications are presented.

## EDPC 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 and EDPC 122.** 

## EDPC 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 EDPC 122.** 

## EDPC 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 counsellors working together; Symptoms of depression; Counselling for depression, General adaptation syndrome, and Coping are some of the areas addressed.

## EDPC 397 Current Theories in Counselling and Psychotherapy

The course makes an overview of current theories in counselling 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, counselling/therapy models, the therapeutic relationship, the function and role of the counsellor and the skills within the various theories. *Prerequisites: PSYC 110, PSYC 111, EDPC 122 and EDPC 150.* 

3 Credits

## EDPC 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.

### **EDPC 465** Topics in Counselling 2 Credits

The course explores areas in Counselling Psychology that have not been covered in any of the courses in the program such as communication, the role of suffering, conflict management and other current counselling issues. *Prerequisites: PSYC 110, PSYC 111, EDPC 122 and EDPC 150.* 

## EDPC 480 Counselling Research Methods 3 Credits

The course basically addresses the issue of moving beyond common sense in seeking answers to puzzling questions about human behaviour. 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, EDPC 122 and EDPC 150.** 

## EDPC 482 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, EDPC 122 and EDPC 150.* 

## EDPC 484 Cross cultural Counselling 2 Credits

The course focuses on counselling between/among individuals of different cultures. The course therefore provides awareness, cultural sensitivity and a global perspective to the discipline of counselling and emphasizes the role of the counsellor in such counselling settings. Topics include Politics of counselling, Barriers of cross cultural counselling, Cultural identity development, Mistrust in cross cultural counselling and Cross cultural communication/Family counselling. *Prerequisites: PSYC 110, PSYC 111, EDPC 122 and EDPC 150.* 

### **EDPC 489** Counselling Practicum 2 Credits

This course provides B.A. and Associate degree Counselling Psychology learners with supervised counselling experiences in preparation for professional counselling practice. **Prerequisites: Completion of 40 credits of counselling courses which should include EDPC 150, EDPC 270, EDPC 386 and EDPC 397.** 

### **PSYCHOLOGY COURSES**

### 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 behaviour, Social psychology, Psychotherapy, Research methods, Stress, Memory, Intelligence, and Learning.

### PSYC I 10 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 III General Psychology II 2 Credits

This course is a continuation of PSYC 110. It addresses Language and thought, Intelligence, Motivation, Emotion, Stress, Personality, Organizational/Industrial psychology, Psychological disorders, Therapy, and Social behaviour. **Prerequisite: PSYC 101 or PSYC 110.** 

## PSYC 340 Motivation and Behaviour 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 behaviour change are presented. **Prerequisites: PSYC 101 or PSYC 110/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. *Prerequisites: PSYC 101 or PSYC 110/PSYC 111.* 

### PSYC 450 Social Psychology 2 Credits

The course addresses the study of human behaviour in group settings. Issues such as Stereotypes, Prejudice, Evil, Helping behaviour, Friendship, Liking and loving, Social facilitation, and Obedience are discussed. **Prerequisites: PSYC 101 or PSYC 110/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. **Prerequisite: Completion of at least 13 credits of courses in health psychology minor.** 

## 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. Prerequisite: completion of at least 20 credits of courses in the Health Psychology minor.

### **SOCIOLOGY COURSE**

## 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.























### **SCHOOL OF HEALTH SCIENCES**

### **DEAN** – Nyangena, E.

### **PHILOSOPHY**

Jesus is the healer of broken bodies, minds, and souls. He has commissioned us to continue in His healing ministry through education, service, and research until He comes. The students in this school will be educated and trained to serve humanity as qualified health professionals who can skillfully identify, treat, and prevent disease. 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 re competent in the delivery of health care services, teaching, and research.

### **VISION**

The vision of the school of Health Sciences is to, be a school that is noted for excellence in training health professionals who are committed to the prevention of disease, and the 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 for service to God and humanity. They should be able to:

- Apply a holistic approach to their health practices in the diagnosis, treatment, prevention of disease, and promotion of health.
- 2. Demonstrate professional responsibility towards their client

- 3. Utilize their knowledge in providing spiritual care as well as attending to the physical needs of their clients.
- Conduct research that would improve the provision of health care services
- 5. Assume leadership roles in healthcare
- 6. Excel in training and educating health-care 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 Millennium Development Goals (MDGs)

## DEGREES AND DIPLOMAS OFFERED BY THE SCHOOL

### **MASTERS**

Master of Science (MSc.N) in Nursing

### **BACHELORS**

- 1. Bachelor of Science (BSc.N) in Nursing
- 2. Bachelor of Science (BSc) in Medical Laboratory Sciences
- 3. Bachelor of Science (BSc) in Health

### **MINOR**

Minor in Public Health

### **DEPARTMENT OF MEDICAL LABORATORY SCIENCES**

### **FACULTY**

Obey, J. - Chairperson

Choge, J. Ogot, A.

Panulo, B.

**Email:** hod\_mls@ueab.ac.ke

### **PHILOSOPHY**

Graduates of this program will be individuals who will value human life and will use the clinical laboratory science knowledge to maintain and save life. They will be part of the health care teams whose members will work collectively to find solutions to the health problems of individuals. They will be expected to discharge their duties with diligence in the fear of God, and with a sense of commitment to the healing ministry of our Lord Jesus Christ.

### **MISSION**

To train technically competent and scientifically innovative clinical laboratory scientists who will serve the people of Kenya and Africa with Christian devotion whether at hospital clinical laboratories, in rural clinics, in government service or private settings.

### **VISION**

To raise the standard and quality of Clinical Laboratory Science training and implementation in Kenya, and in the African continent as a whole.

### **EXPECTED LEARNING OUTCOMES**

A graduate from the Department of Medical laboratory Science, should be able to:

- 1. Define medical terms that relate to human anatomy, physiology, human diseases, drugs and disorders.
- 2. Discuss rules, regulations and ethical behaviour governing medical laboratory practitioners.
- 3. Explain the production, maturation, functions and disorders of blood cells;
- 4. Collect, transport and analyse specimen from patients for diagnosis and treatment;
- 5. Describe the classification, taxonomy, pathogenesis, treatment, epidemiology, control and diagnosis of viruses, bacteria, fungi, protozoa, helminthes,

- 6. Discuss immune mechanisms of disease and immunodiagnostic procedures based on antigen and antibody reactions;
- 7. Set up and manage a medical laboratory with manual, electric and electronic equipments to facilitate identification, analysis and diagnosis of micro-organisms that cause diseases to human beings;
- 8. Recognise abnormal pathological laboratory results and their causes:
- Detect laboratory results which may be unreasonable or in error;
- 10. Identify, select, use and maintain clinical laboratory equipments;
- 11. Set up safety and quality control measures in a clinical laboratory;
- 12. Demonstrate laboratory procedures, supervisory and managerial skills relevant to running a clinical unit;
- 13. Apply Christian ethical norms and professional ethics in relation to physicians, colleagues, and patients;
- 14. Carry out a scientific research project to solve a clinical problem;
- 15. Continue with graduate studies in specialised areas of laboratory science.

### **DEGREE OFFERED BY THE DEPARTMENT**

Bachelor of science in medical laboratory sciences

#### **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, Immunohematology, Clinical Microbiology, Laboratory Administration, Clinical Chemistry, Virology, Cyto-Histology, etc.

### **ENTRANCE REQUIREMENTS**

- I. A minimum grade of C+ or better in Kenya Certificate of Secondary Education (KCSE), with a grade of C+ or better in Biology or Chemistry and Mathematics or Physics and English or Kiswahili.
- 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. Candidates holding a Medical Laboratory Technology diploma and qualifying as upgraders will be accepted into the program. The conditions for consideration as an upgrader are:
  - a. Diploma in Medical Laboratory Technology from a recognized institution.
  - b. Have a current registration with KMLTTB or any other recognized registering body.
  - Present a transcript, diploma, and KMLTTB registration certificate or certificate from another recognized registering body
  - d. Present a course syllabus from previous training
  - e. Have an updated CV
  - f. Upgraders will be exempted from taking some courses approved by the department.
- 4. 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 colour distinctively.

### INTER-DEPARTMENTAL TRANSFER

Regulations concerning inter-departmental transfer found in the relevant UEAB Bulletin will be adhered to. In addition, the following will also apply: a GPA of 2.5 or better in MATH 101, CHEM 111, and BIOL 155. An overall GPA of 2.5 is required for all general education requirements, science cognates and mathematics at the time of transfer. No grade should be less than a C (plain) in science cognates.

### CONDITIONS FOR ADVANCEMENT TO CLINICAL YEAR

- 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 (plain).
- 3. The student should have clearance from the Clinical Year Admissions Committee.
- The student should have attained an overall GPA of 2.5 or above.

### REPEAT POLICY

- Students should not repeat more than three times, per course or different courses. If there are more than three repeat courses, the student will be advised to change his/ her major from MLS.
- 2. No student will be allowed to take subsequent courses in series if they fail the prerequisite course with a D (plain) or F, and has to repeat the course. A student will be allowed to continue to the next course with a C- (minus).

### REQUIREMENTS FOR GRADUATION

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 minimum cumulative GPA of 2.25 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 2.5 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 completion of the degree program.

## BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

### **SUMMARY**

General Education Courses	35
Core Courses	67
Cognates	41
Clinical Practicum	15

Total 158 Credits

### **COURSE LISTING**

### GENERAL EDUCATION COURSE 34 Credits

(Refer to the page on general education requirements indicated in the table of contents. The courses not required are covered in cognates and major courses).

General education requirements to be exempted for Medical Laboratory Sciences are:

17 Credits

## COURSE CREDITS FOR EXEMPTION FOR UPGRADERS

	Vocational Skills		
HLED II0	Health Principles	1	
ENVI 227	Environment and Society	2	
BIOL 105	Human Biology	2	
PHYS 105	Concepts of Physical Science I	2	
AGRI 106	Principles of		
	Agricultural Technology	2	
HIST 119	Issues in Development Studies	2	
PEAC 107	Physical and Recreational Activites	1	
OFTE 120	Keyboarding	0	
ENGL 151	Intro to Lit Appreciation	2	
FCSC 207	Family Issues	2	

## COURSE CREDITS FOR EXEMPTION FOR REGULAR STUDENTS 13 Credits

	Vocational Skills	-
HLED II0	Health Principles	1
ENVI 227	Environment and Society	2
BIOL 105	Human Biology	2
PHYS 105	Concepts of Physical Science I	2
PHSY 106	Concepts of Physical Science II	2
PEAC 107	Physical and Recreational Activites	1
AGRI 105	Principles of	
	Agricultural Technology	2

CORE COURSI			S 67 Cre	dits
	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 23 I		Fundamentals of Hematology	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 3
	CLSC 352		Clinical Virology and Vaccines	3
	CLSC 361		Medical Parasitology I	3
	CLSC 362		Medical Parasitology II	2
	CLSC 358		Clinical Mycology	3
	CLSC 390		Introduction to	
			Research Methodology	2
	CLSC 393		Laboratory Management	
			and Administration	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	
	CLSC 441		Hematology	3

CLSC 442	Hemostasis	2
CLSC 451	Clinical Microbiology	3
CLSC 471	Clinical Immunology	2
CLSC 484	Immunohematology	
	and Transfusion Medicine	4

<b>CLINICAL P</b>	RACTICUM 15 Cre	dits
CLSC 413	Specimen Procurement, Handling	
	and Processing Practicum	-
CLSC 423	Clinical Chemistry Practicum	2
CLSC 443	Clinical Hematology and	
	Hemostasis Practicum	2
CLSC 455	Clinical Microbiology and	
	Mycology Practicum	2
CLSC 456	Clinical Parasitology Practicum	2
CLSC 463	Histopathology/Cytopathology	
	Practicum	-
CLSC 475	Clinical Immunology	
	and Virology Practicum	2
CLSC 483	Clinical Immunohematology	
	Practicum	2
CLSC 493	Laboratory Management and	
	Administration Practicum	-

COGNATES	41 Credits	
PHNL 202	Statistics in the Health Sciences	3
BIOLIII	Human Anatomy and Physiology I	4
BIOL 112	Human Anatomy and Physiology II	4
BIOL 155	Foundations of Biology I	4
BIOL 447	Molecular Biology	3
BIOL 448	Genetics	3
CHEM III	Introductory General Chemistry	4
CHEM 113	Principles of Organic and	
	Biochemistry	4
MATH 101	Precalculus I	3
NUTR 234	Nutrition	3
PHHC 390	Community Health and Diagnosis	3
PHYS 200	Applied Physics and	
	Bioinstrumentation	3

	EXEMPTION COURSES FOR UP-GRADERS  I I Credits					
	CLSC 100		Introductions to Clinical			
			Laboratory Science	2		
	CLSC 105		Medical Terminologies	1		
	CLSC 23 I		Fundamentals of Hematology	3		
	CLSC 250		Fundamentals of Clinical			
			Microbiology	3		
	CLSC 320		Fundamentals of Clinical Chemistry	2		
	CLSC 360		Histologic Techniques	2		
ı	PRACTICUM COURSES					
ı	FOR UPGRA	<b>ADE</b>	RS 10 Cre	dits		
	CLSC 413		Specimen Procurement,			

ı	FOR UPGRADERS 10 Cre			dits
	CLSC 413		Specimen Procurement,	
			Handling and Processing	
			Practicum	1
	CLSC 424		Clinical Chemistry Practicum	1
	CLSC 444		Clinical Hematology	
			and Hemostasis Practicum	1
	CLSC 458		Clinical Microbiology and	
			Mycology Practicum	1
	CLSC 459		Clinical Parasitology Practicum	1
	CLSC 463		Histopathology/Cytopathology	
			Practicum	1
	CLSC 474		Clinical Immunology	
			and Virology Practicum	1
	CLSC 485		Clinical Immunohem Practicum	2
	CLSC 493		Laboratory	
			Management Practicum	1

### **COURSE DESCRIPTIONS**

### **CORE COURSES**

## CLSC 100 Introduction to Clinical Laboratory 2 Credits

This is an introduction to the major Clinical Laboratory Science disciplines. A general introduction to laboratory rules and regulations, professional relations and medical ethics are covered. 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 | | Credit

This course provides a detailed study of medical terms and abbreviations that relate to human body parts, human diseases, drugs, and disorders; it also covers different health disciplines and the medical terms involved in the respective disciplines.

## 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, the morphology of blood cells, anemia and leukemia. Normal hemostasis is introduced. Introduction of blood group antigen systems, some basic blood bank testing, donor selection, donor unit testing, and possible transfusion reactions, routine laboratory testing in hematology, hemostasis, and blood bank are also dealt with. **Prerequisites: BIOL 111** and BIOL 112.

## CLSC 150 Fundamentals of Clinical Microbiology 3 credits

This course provides an introduction to selection, collection and transportation of patient specimen. Cultural characteristics are studied. It covers classification, taxonomy, host-parasite relationship, normal flora, immunity, pathogenicity, antimicrobial agents, resistance; susceptibility testing, disinfection procedures, and common staining procedures. Morphological features, microscopy, cultivation, isolation, staining, metabolic biochemical, serological and DNA identification methods are also covered.

## CLSC 151 Basic Medical Microbiology 3 Credits

This covers classification and characteristics of micro-organisms, viruses, bacteria, fungi, protozoa, helminthes, Microbial infection, transmission, pathogenesis and diagnosis, Microbial resistance, synergism and sensitivity testing, Immunity to microbial infections, Infection prevention and control and vaccination.

## CLSC 170 Principles of Immunology 3 Credits

Topics will cover innate and acquired immunity in humans, immunoglobulin production, structure, function, diversity; antigen characteristics, tolerance and memory; complement structure and function; cell-mediated immunity function and regulation; autoimmune disorders; transplantation and tumor immunology; immunodeficiency disorders, hypersensitivity. Principles of laboratory and test quality assurance antigen/antibody reactions.

## CLSC 171 Basic Clinical Immunology 3 Credits

This course is designed for students taking health-related majors. The course covers non-specific and specific immunity. complement systems; proteins activation and biological properties, cells of immunity, Immunoglobulins, receptors. Antigenantibody interactions, major histocompatibility complex, Antigens; auto immunity, immune deficiencies, transplantation and rejection.

## CLSC 205 Principles of Nuclear Medicine 2 Credits

This is an introduction to radioactive decay mechanisms. It 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, autoradiographic theory and decay will be studied. All aspects of exposure and disease will be covered.

Prerequisite: Sophomore standing.

Prerequisite: BIOL 155.

## CLSC 206 Principles of Forensic Medicine 2 Credits

This covers 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 and illegal abortion. Other tests will assist in establishing injuries caused by foreign inanimate objects, like guns. **Prerequisite: Sophomore standing.** 

### **CLSC 220** Basic Clinical Chemistry3 Credits

Biochemical reference values and factors affecting them: principles of sample collection, preservation, and storage, precautions 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. **Prerequisite: CHEM 111.** 

## CLSC 221 Fundamentals of Clinical Chemistry 3 Credits

The course gives an introduction to clinical laboratory techniques and procedures, lab safety and application of quality control. It covers spectrophotometry, chromatography, electrophoresis, electrochemistry, immunoassays, and nucleic acid probe techniques. It covers organ system functions like renal, cardiac and liver function, carbohydrates, lipids, electrolytes and amino acids and proteins. **Prerequisite: CHEM 102.** 

## CLSC 231 Fundamentals of Hematology 3 Credits

Introduces the production, maturation, and function of normal blood cells; covers the morphology of red blood cells, white blood cells and platelets, both for the immature and mature Cells. Anemia and Leukemia are also introduced. Hemostasis is introduced, covering normal hemostasis, coagulation and fibrinolytic factors. The course also introduces bloodgroup antigen systems, and some basic blood bank testing. **Prerequisites: BIOL 111, BIOL 112 and BIOL 155.** 

## CLSC 235 Introduction to Pharmacology and

Pharmacognosy 2 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.

Prerequisite: CHEM 111 and CHEM 113.

## CLSC 252 Principles of Food and Water Microbiology 3 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, faecal coliforms and other pathogenic organisms found in water is done. **Prerequisite: CLSC 150.** 

## CLSC 253 Basic Clinical Parasitology 3 Credits

This course is designed for students taking health-related majors. It will cover the morphology, biology, pathogenesis, epidemiology, and control of mostly parasites of clinical and public health importance. Special emphasis will be placed on the treatment of parasitic infection, patient care and control of parasitic infection. An introduction to laboratory diagnosis of parasitic infection will be covered. **Prerequisite: CLSC 170.** 

### CLSC 260 Histologic Techniques 2 Credits

The course introduces students to histologic preparatory techniques including: microtome use, mounting, staining techniques, preparation and decalcification of bone sections. The 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.

### CLSC 308 Systemic Pathology 2 Credits

The course deals with definition of methods used in pathology. It covers disturbances in metabolism of the proteins, lipids, carbohydrates and minerals with development of different degenerative changes. Causes and morphological types of necrosis, tumours, disturbances of circulation and disorders of the body fluid (edema, dehydration) are also dealt with. **Prerequisite: Junior standing.** 

## CLSC 352 Clinical Virology and Vaccines 3 Credits

Lectures will cover pathogenesis and identification of major pathogenic viruses. Organisms covered will be: Respiratory Viruses, Exanthemas, Immunodeficiency Viruses, and Central Nervous System viruses, Viral Agents of gastrointestinal Rabies, Human Papiloma Viruses, Hepatitis Viruses and Herpesviruses. A brief study of antiviral therapy will be covered. Vaccine production, storage and the general importance of immunization will be covered. **Prerequisite: CLSC 170.** 

### CLSC 361 Medical Parasitology I 4 Credits

This course covers the study of parasitic protozoa, helminthes, ectoparasites and vectors of medical importance. Their classification, morphology, identification, life cycle, pathogenesis, epidemiology, diagnosis and control will be covered. Clinical laboratory procedures including staining, mounting and preservation of parasites of medical importance will be done. **Prerequisite: Junior standing.** 

### CLSC 362 Medical Parasitology II 4 Credits

This course covers the study of vectors of parasitic protozoa, and helminthes. ectoparasites will be covered also. Their classification, morphology, identification, life cycle, epidemiology, diagnosis 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 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 390 Introduction to Research Methodology 2 Credits

This course covers special research methods in the area of medical research. Study designs in medical research are covered. Non-experimental and experimental research are covered. Descriptive and inferential statistical methods will be covered. Estimation and hypothesis testing, samples and sample size determination; confidence limits and level of significance. Statistical methods in research will be applied. Ethical, legal and scientific aspects of human subject research and proposal writing will be covered. *Prerequisites: PHNL 202 and junior standing.* 

## 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. Also includes information systems and professional ethics as applicable to the clinical laboratory.

### CLSC 395 Seminar I Credit

The student will be introduced to skills in seminar presentation. Topics will include communication skills, use of audio visuals during seminar presentation. A proposal on a topic of medical importance will be presented. Are search study will be conducted. Students will make both written and oral presentations on the research in an organized, scientific seminar. **Prerequisite: CLSC 390.** 

## CLSC 412 Specimen Procurement and Body Fluids 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.

### 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 analyzed, 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. **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. Chemical and microscopic studies of normal and abnormal constituents of urine and other body fluids will be covered. Body fluids, their evaluation, disease responsible for changes will be presented. There will be I laboratory period per week. **Prerequisite: CLSC 421.** 

### CLSC 441 Hematology 3 Credits

Normal and abnormal blood cells are studied in this course. Counts of the different components of blood are done. Bone marrow is studied and smears examined. Anemias and white blood cell disorders are studied in detail. **Prerequisite: CLSC** 231.

### CLSC 442 Hemostasis 2 Credits

Topics will cover thrombosis risk testing, qualitative and quantitative vascular and platelet disorders, defects of plasma clotting factors, and hemorrhagic coagulation disorders and pathways. Evaluation of hemostasis will also be done. **Prerequisite: CLSC 231.** 

### CLSC 451 Clinical Microbiology 3 Credits

The course will cover medically important bacteria in the following areas; The identification of routine and non-routine bacteria; Gram-negative bacilli, Gram-positive cocci, Aerobic Gram-positive bacilli, Anaerobic bacteria, Mycoplasmas and Ureaplasmas, Mycobateria, and Spirochetes, Automation, and quality assurance. Emphasis will be placed on isolation, epidemiology, pathogenesis, identification and antimicrobial susceptibility testing of pathogenic bacteria. **Prerequisite: CLSC 150.** 

### CLSC 471 Clinical Immunology 2 Credits

Lectures will present the theoretical aspects of tests for demonstration of antigen/antibody reactions in relation to disease. Serological testing will include precipitation, agglutination, hemolysin reactions, nephelometry, and immunofluorescence, and molecular techniques. An advanced understanding of the immunology and serology of bacteria, fungi, parasite, viruses and autoimmune disease will be presented. **Prerequisite: CLSC 170.** 

## CLSC 484 Immunohematology and Transfusion Medicine 4 Credits

The 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 correlations are also done. It will also include the organization of blood transfusion service, blood donor recruitment, selection, and phlebotomy. Blood and blood component, processing, distribution and therapy are studied. **Prerequisite: CLSC 231.** 

### **CLINICAL PRACTICA**

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The course covers practical applications and rules to follow in specimen collection and processing. Emphasis is put on the application of professional ethics as patient privacy and rights are taken into consideration.

## CLSC 423 Clinical Chemistry Practicum

Students will be exposed to the detection of various proteins, lipids carbohydrates in various body fluids including both manual and automated machines used in diagnosis of these substances in pathological conditions.

2 Credits

## CLSC 443 Clinical Hematology and Hemostasis Practicum 2 Credits

This is a hospital-based practical experience that involves professional health-care experience. Emphasis is placed in the application of hematology and hemostasis knowledge to patient-care. Peripheral blood and bone marrow analyses are done, as well as analyses of other body fluids.

## CLSC 455 Clinical Microbiology and Mycology Practicum 2 Credits

This course covers using methods in bacteriology mycology for diagnosis of human disease. Isolation and identification of viral and fungal organisms by culture techniques and molecular techniques will be carried out. *Prerequisites: CLSC 451 and CLSC 453*.

## CLSC 456 Clinical Parasitology Practicum 2 Credits

This course covers the direct smear for stool microscopy, sedimentation and floatation concentration techniques for fecal parasities stages. Staining techniques like temporary and permenant staining procedure will be covered. Preparation of blood smears for protozoa and filarial worms will be taught. Serologic tests and molecular techniques for the detection of parasitic diseases will be covered.

### CLSC 463 Histopathology/Cytopathology Practicum I Credit

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 475 Clinical Immunology and Virology Practicum 2 Credits

This course deals with diagnostic techniques, equipment, specimen transportation, 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. Culture techniques and requirements for viral organisms will be covered.

## CLSC 483 Clinical Immunohematology Practicum 2 Credits

This course is a professional health-care laboratory practicum that exposes students to applications of the principles of compatibility testing, antibody identification and quality control in blood banking procedures. It emphasizes professional health care in the laboratory and patient-care in the blood bank laboratory.

## CLSC 493 Laboratory Management Practicum I Credit

This practical experience is an exposure to lab administration and personnel management. Students are expected to observe what the lab manager and supervisors do and how the lab operates in its different aspects, applying the theory.

### **DEPARTMENT OF NURSING**

**FACULTY** 

Njeru, M. -Chairperson

Bor, T.

Christinal, A.

Deya, D.

Kimeto, P. -(Study Leave)

Kwalimwa, J.

Lee, D.

Limo, E. Maina, T.

Mandere, B.

Marwa, I.

Mcharo, S. -(Study Leave)

Mooka, G.

Mose. I.

Mwita, L.

Ngerecia, J.

Nyangena, E.

Ombete, W.

Oyieke, J. -(Study Leave)

Rotich, J. Poornima, R. Wainaina, G.

**Email:** chairperson\_nursing@ueab.ac.ke

### **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 applied science which regardless of social or ethnic backgrounds 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 as 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 Nursing Department 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

To provide quality professional education, be leaders in nursing education and research in Kenya and Eastern Africa, and develop a firm foundation for establishment of graduate nursing education programmes.

### **EXPECTED LEARNING OUTCOMES**

At the end of the Nursing programme, the student should be able to:

- 1. Define nursing and health care;
- 2. Give a historical background of nursing as a profession;
- 3. Discuss nursing and health care from the physical, psychological, social, spiritual and philosophical dimensions;
- 4. Relate human anatomy, physiology and chemistry to nursing theory and practice;
- 5. Explain determinants of drug administration and right dosing in treating patients and their role on safety nursing care;
- 6. Conduct research in Nursing and health care;
- 7. Discuss theories of reproductive physiology, health assessment, and health promotions of expectant mothers during pregnancy period;
- 8. Identify evidence based nursing care;

- Provide community health services including assessing children's nutrition, school health care, community assessment, assessing community life style, and immunizing community children;
- 10. Identify risky pregnancies, labour and delivery;
- Provide nursing care to expectant mothers, infants and maternal treatment;
- 12. Demonstrate the utilization of relevant technology in preparation for a surgical bed;
- 13. Demonstrate caring for traumatic patients due to pregnancy, family abuse, incest, family violence and rape;
- 14. Value human life as a gift from God for the living;
- 15. Practice professional ethics for nurses and physicians;
- 16. Carry out research aimed at improving the nursing care of patients, infants and the aging;
- 17. Design academic programmes for health workers;
- 18. Pursue graduate and post-graduate programmes to improve their skills in nursing.
- 19. physiology and chemistry to nursing theory and practice;
- 20. Explain determinants of drug administration and right dosing in treating patients and their role on safety nursing care;
- 21. Conduct research in Nursing and health care;
- 22. Discuss theories of reproductive physiology, health assessment, and health promotions of expectant mothers during pregnancy period;
- 23. Identify evidence based nursing care;
- 24. Provide community health services including assessing children's nutrition, school health care, community assessment, assessing community life style, and immunizing community children;
- 25. Identify risky pregnancies, labour and delivery;
- 26. Provide nursing care to expectant mothers, infants and maternal treatment:
- 27. Demonstrate the utilization of relevant technology in preparation for a surgical bed;
- 28. Demonstrate caring for traumatic patients due to pregnancy, family abuse, incest, family violence and rape;
- 29. Value human life as a gift from God for the living;
- 30. Practice professional ethics for nurses and physicians;
- 31. Carry out research aimed at improving the nursing care of patients, infants and the aging;
- 32. Design academic programmes for health workers;

33. Pursue graduate and post-graduate programmes to improve their skills in nursing.

### PROGRAMMES OFFERED BY THE DEPARTMENT

- I. Master of Science in Nursing (MScN) Community Health Nursing Option. (See Post-Graduate Bulletin)
- 2. Bachelor of Science in Nursing (BScN)

### **CAREER OPPORTUNITY FOR BScN GRADUATES**

- I. Clinical Nurse Practitioner
  - a) Midwifery
  - b) Community Health
  - c) Medical Surgical Nursing
  - d) Paediatric Nursing
  - e) Anaesthetics Nursing
  - f) Mental Health and Psychiatric Nursing etc.
- 2. Nurse Educator
- 3. Nurse Researcher
- 4. Nurse Manager etc.

### **ADMISSION REQUIREMENTS**

The minimum requirements for admission to the University of Eastern Africa, Baraton must be met.

- A mean grade of C+ (plus) or better in KCSE, division II or better, or its equivalent, is required for all pre-service students.
- A grade of C+ or credit in cluster subjects; Mathematics/ Physics, Chemistry, (or Physical science), Biology, and English.
- 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 nurses must assume responsibility to have their certificates or diplomas translated to English. It is strongly advised that they should apply for registration with the Nursing Council of Kenya before admission to the university
- 4. Foreign '0' level certificates are sent to the Kenya National Examination Council (KNEC) for equation to the Kenyan system. This is done before admission.

- 5. For Registered Nurses, a mean grade of C plain, or Division III, diploma certificate and practice licence from the Nursing council of Kenya, and 2 years' experience are required. Lack of 2 years' experience will warrant a full year internship after graduation and this is not encouraged.
- 6. 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.

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 before beginning nursing. The student must have an '0' level mean grade of C+ and C+ in each of the cluster subjects.

Students admitted as pre-major or pre-University are NOT eligible for inter-departmental transfer.

### PROGRESSION FROM PRE-CLINICAL

- The Department of Nursing looks for evidence of personal integrity, intellectual vigour, good health, self-discipline, and self-direction, when registering students for clinical nursing courses.
- 2. Pre-clinical course requirements include:
  - a. A grade of C (plain) or better in each cognate.
  - b. Completion of ALL cognates and a minimum of 48 credits. No appeals will be considered.
  - c. Nursing classes begin in March and August and the Student is indexed with the Nursing Council of Kenya at that time.

### **OFF-CAMPUS COURSES**

All clinical experiences of nursing courses are offered off campus, and there may be some occasions when the theory will also be offered off campus. Where accommodation is required for those off- campus courses, the student is responsible for locating his/her own accommodation. The faculty of the Department may assist the students in locating such accommodation. While off-campus, students are expected to conduct themselves according to UEAB main campus policies.

### PROGRESSION FOR ALL NURSING STUDENTS

- I. All students must earn a grade of C in cognates and C+ 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%. Failure to obtain an equivalent of C+ in either of the two parts will result in repeating the whole course and the grade that is less than a C+ will be recorded as the grade earned at that time.
- No more than three (3) clinical nursing courses should to be repeated. A course may be repeated twice only. A student who fails to meet this requirement will be required to discontinue from the Nursing programme. This revised policy takes precedence over that which is stipulated in the previous bulletins and past practice, effective 1st Trimester 2012/2013.
- 3. Marriages are discouraged while students are registered for clinical nursing courses.
- 4. Nursing courses taken more than 4 years previously will not be accepted for continuing in the programme. Students must ensure continuity of study.

### TRIMESTER IMPLEMENTATION

The length of the trimester will be 14 weeks divided into 2 terms of 9 weeks each. I to 3 nursing courses will be offered each term of the trimester. The end of course theoretical and practical examinations will be administered at the end of each term. Exams will be marked and grades submitted as per University policy. Note:

• Only students registered for clinical nursing courses are affected by the term schedule.

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- The Nursing Department will have 2 Trimesters having 18 weeks each. (Non-clinical courses will be offered during the Inter-Semester).
- Students should register for all trimester courses at the beginning of the trimester.

## REGISTERED NURSE (RN) REGISTERED NURSE MIDWIFE (RN/M), REGISTERED COMMUNITY HEALTH NURSE (RCHN) EXEMPTIONS:

RN (general) applicants will be exempted from only the most basic nursing courses such as NRSG 215: Nursing Foundation and NRSG 228: Medical-Surgical Nursing.

RN/RM (Registered Nurse/Midwife) applicants will be exempted from NRSG 238: Childbearing I and beginning level courses such as NRSG 215: Nursing Foundations and NRSG228: Medical-Surgical Nursing I, They will be required to take NRSG 334 Reproductive Health Nursing I instead of NRSG 338: Childbearing Family II.

RCHNS (Registered community Health Nurses) applicants will be exempted from NRSG 215: Nursing Foundations, NRSG 228: Medical-Surgical Nursing I, NRSG 238: Childbearing Family I, and NRSG 248: Community Health Nursing I. They will be required to take NRSG 334 Reproductive Health Nursing I instead of NRSG 338: Childbearing Family II.

Every applicant in the categories of RN, RN/M registration and RCHN may be expected to attend selected sessions of NRSG 215 (Nursing Foundations) as a bridge to professional nursing.

All students on RN, RN/M, RCHN-BScN completion tracks will be exempted from GEWE 101, ENVI227, PEAC 107, ECON 201, ENGL151, FCSC207, AGRI 106, PHYSC 105, INSY 106, OFTE 120, SOCI 119, PSYC 101 and Vocational skills. A checklist will be provided to guide students on their program of study.

The Commission for Higher Education of Kenya regulations allows a maximum of 20 Semester hours to be transferred into the BSN program from other nursing programs. For RN's with exceptional levels of experience and continuing education certificates (determined through submission of detailed professional biography and interview by nursing faculty), nursing course challenge examinations may be possible according to the

university guidelines in the UEAB Bulletin. To transfer credits, one must apply by filling in credit transfer forms.

Nurses with specialization in ICU, Psychiatry, and Paediatrics may be exempted on an individual basis from taking relevant courses where possible.

### **REQUIREMENTS FOR CREDIT TRANSFER**

- I. Course descriptions of syllabi will be required to determine the acceptability of a course or the amount of transfer credits to be granted.
- 2. An updated C.V.
- 3. A transcript showing marks and grades that were attained in earlier professional education.
- Applicants who have been trained in other health related areas other than nursing are not eligible to request for transfer of credits to nursing. They must take all the nursing courses.

### **REQUIREMENTS FOR GRADUATION**

A candidate for a basic (Generic) Bachelor of Science Nursing Degree will have completed a minimum of 160 credits of which:

- 45 credits are general education requirements. All Nursing students are exempted from GEWE 101 and 102 (work experience Education 1 & 2) because they are engaged in clinical practice during their training.
- 2. A total of 80 credits of basic Nursing in Bachelor of Science Degree with a minimum grade of C+ (G.P.A of 2.33) in each nursing Course.
- 3. A total of 38 credits in Cognate courses with an overall cognate GPA of at least 2.00. In sequence courses, C or above is required for each course.

The minimum overall GPA should be 2.0 and core GPA 2.25 for graduation.

Students on the RN-BScN track should complete a minimum of 128 credits of which:

- 1. 68 credits of nursing courses,
- 2. 33 credits of cognates
- 3. 30 credits of general requirements.

Students on the RN/RM track should complete a minimum of 119 Credits of which:

- 1. 59 credits of nursing courses,
- 2. 33 credits of cognates,
- 3. 26 credits of general,

Students on the RCHN track complete a minimum of 114 Credits of which:

- 1. 54 credits of nursing courses,
- 2. 33 credits of cognates and
- 3. 26 credits of general requirements.

### **GENERAL EDUCATION COURSES** 45 Credits

Nursing students are required to take courses from each of the categories specified under the General Education section in addition to the required courses for the Nursing major area of study. However, they do not need to take HLED 110 under Health Science section.

### **REQUIREMENTS FOR ALL NURSING MAJORS**

COGNATES 38 Cr		
BIOLIII	Anatomy and Physiology I	4
BIOL 112	Anatomy and Physiology II	4
BIOL 245	Basic Medical Microbiology	4
CHEM 119	Basic Medical Biochemistry	5
CLSC 141	Principles of Hematology and	
	Transfusion Medicine	3
CLSC 171	Basic Clinical Immunology	3
CLSC 219	Principles of Clinical Chemistry	3
CLSC 253	Basic Clinical Parasitology	2
PHDT 202	Biostatistics in Public Health	3
NUTR 234	Nutrition	3
PSYC 101	Introduction to Psychology	2
SOCI 120	Introduction to Sociology	2

**Note:** No minor is required for Nursing Majors.

#### **BACHELOR OF SCIENCE IN NURSING**

### **GENERIC NURSING MAJOR COURSE** 80 Credits

NRSG 212	Health Assessment	3
NRSG 213	Pharmacology in Nursing	3
NRSG 215	Nursing Foundations	6
NRSG 228	Medical Surgical Nursing I	6
NRSG 238	Childbearing Family I	5

NRSG 240	Human Pathology	2
NRSG 244	Medical-Surgical Nursing II	2
NRSG 248	Community Health Nursing	5
NRSG 318	Mental Health Nursing	5
NRSG 328	Child Health Nursing	5
NRSG 338	Childbearing Family II	5
NRSG 345	Out-patient/Casualty Nursing	4
NRSG 348	Critical Care Nursing	5
NRSG 400	Education Concepts and Strategies	3
NRSG 418	Childbearing Family III	5
NRSG 420	Nursing Management	6
NRSG 423	Nursing Research I	3
NRSG 431	Nursing Research Project	2
NRSG 438	Community Health	
	Nursing Leadership	5

For those Upgrading nurses on the BScN completion track, it will be as follows depending on their formation (Diploma).

### **RN (GENERAL TO BSC IN NURSING)**

### NURSING MAJOR REQUIREMENTS 68 Credits

Health Assessment	3
Pharmacology in Nursing	3
Childbearing Family I	5
Human Pathology	2
Medical Surgical II	2
Community Health Nursing	5
Mental Health Nursing	5
Child Health Nursing	5
Childbearing Family II	5
Out-Patient/Casualty Nursing	4
Critical Care Nursing	5
Education Concepts and Strategies	3
Childbearing Family III	5
Nursing Management	6
Nursing Research I	3
Nursing Research Project	2
Community Health	
Nursing Leadership	5
	Pharmacology in Nursing Childbearing Family I Human Pathology Medical Surgical II Community Health Nursing Mental Health Nursing Child Health Nursing Childbearing Family II Out-Patient/Casualty Nursing Critical Care Nursing Education Concepts and Strategies Childbearing Family III Nursing Management Nursing Research I Nursing Research Project Community Health

### **RN WITH RM SPECIALIZATION TO BSN**

NURSING I	ΜАЈ	OR COURSES 59 Cre	edits
NRSG 212		Health Assessment	3
NRSG 213		Pharmacology in Nursing	3
NRSG 240		Human Pathology	2
NRSG 244		Medical Surgical Nursing II	2
NRSG 248		Community Health Nursing	5
NRSG 318		Mental Health Nursing	5
NRSG 328		Child Health Nursing	5
NRSG 334		Reproductive Health Nursing I	3
NRSG 345		Out Patient Casualty/Nursing	4
NRSG 348		Critical Care Nursing	5
NRSG 400		Education Concepts and Strategies	3
NRSG 412		Reproductive Health Nursing II	3
NRSG 420		Nursing Management	6
NRSG 423		Nursing Research I	3
NRSG 431		Nursing Research Project	2
NRSG 438		Community Health	
		Nursing Leadership	5

### **RCHN TO BSN**

NURSING MAJOR COURSES 54 Cred			dits
NRSG 212		Health Assessment	3
NRSG 213		Pharmacology in Nursing	3
NRSG 240		Human Pathology	2
NRSG244		Medical Surgical II	2
NRSG 318		Mental Health Nursing	5
NRSG 328		Child Health Nursing	5
NRSG 334		Reproductive Health Nursing I	3
NRSG 345		Out Patient Casualty/Nursing	4
NRSG 348		Critical Care Nursing	5
NRSG 400		Education Concepts and Strategies	3
NRSG 412		Reproductive Health Nursing II	3
NRSG 420		Nursing Management	6
NRSG 423		Nursing Research I	3
NRSG 431		Nursing Research Project	2
NRSG 438		Community Health	
		Nursing Leadership	5

## ALL UPGRADING STUDENTS ARE EXEMPTED FROM THE FOLLOWING COURSES:-

THE POLLOWING COOKSES.					
	HIST III		Concepts of world civilization	2	
	ENVI 227		Environment and society	2	
			Vocational skills	-1	
	PEAC 107		Physical and Recreational Activities	-1	
	ECON 201		Introduction to		
			principles of economics	2	
	OFTE 120		Introduction to Keyboarding	0	
	ENGL 151		Introduction to		
			Literary appreciation	2	
	FCSC 207		Family issues	2	
	SOCI 119		Principles of Sociology	2	
	PSYC 101		Introduction to psychology	2	
	AGRI 106		Principles of		
			Agricultural Technology	2	

Total

17 Credits

### **COURSE DESCRIPTIONS**

### NRSG 100 First Aid

### I Credit

First Aid 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.

### HELD 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 behaviour and measures to correct them. This course is offered during the freshman year and must be taken at that time.

### NRSG 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 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 hours of theory and I hour of practical in campus lab. **Prerequisites: BIOL 112, Biochemistry, Clinical Chemistry; Co-requisites: NRSG 213 and NRSG 215.** 

## NRSG 213 Pharmacology in Nursing

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 families of 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 2 hours of theory and I hour practical in the skills lab. **Prerequisites: PHDT 202: Biostatistics in Public Health, Biochemistry and BIOL 112. Co-requisites: NRSG 212 and NRSG 215.** 

3 Credits

### NRSG 215 Nursing Foundation 6 Credits

This course carries 2 hours of theory and 2 hours of practical in the skills lab. This course consists of an introduction to the Philosophy and conceptual framework of the Nursing Department of the University of Eastern Africa, Baraton and to the roles and functions of Nursing. It includes history, trends in Nursing, basic skills and their application to the nursing process. Opportunity is provided for the student to carry out skills in skills laboratory. It introduces the student to the tools of communication, teaching and learning, problem solving and spiritual care. *Prerequisites: Biochemistry, Clinical Chemistry; BIOL 112; Co-requisites: NRSG 212, NRSG 213.* 

## NRSG 228 Medical Surgical Nursing I 6 Credits

This course builds upon those concepts and skills learned in NRSG 215. 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. This course provides 3 hours of theory and 5 hours of practice in a general hospital setting. *Prerequisites: NRSG 212 and NRSG 215.* 

### NRSG 238 Childbearing Family I 5 Credits

This course explores roles and functions of the family and parenthood. Emphasis is on reproductive physiology, health assessment and health promotion of expectant mothers during each trimester of pregnancy. Content includes the male and female reproductive systems and the various methods of family planning. Students rotate in maternal child health clinics and family planning clinics. The course provides two hours of theory and five hours of practicum. **Prerequisite: NRSG 228.** 

### NRSG 240 Human Pathology 2 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.

## NRSG 244 Medical Surgical Nursing II 2 Credits

The course is a continuation of NRSG 228 Medical-Surgical Nursing I. Students are guided to gain knowledge in the care of the aged population, palliative care and dental care. In addition, principles in nursing care of the aged population will be explained.

## NRSG 248 Community Health Nursing 5 Credits

This course is designed as an introduction to the roles and functions of the Community Health Nurse in Kenya. The care of the individual, family and community is emphasised. Supervised practical experiences which includes functioning as a member of the health team at a local health centre, organizing outreach health programs, conducting community diagnosis and immunizing children. Health promotion, prevention of disease and treatment of diseases is also covered. The course provides 2 hours of theory and 5 hours of practicum. **Prerequisites: NRSG 238, PHDT 202; Biostatistics in Public Health.** 

### NRSG 318 Mental Health Nursing 5 Credits

This Course will explore mental health problems or experiences that place clients at risk and the possible nursing problems that result. It will cover problems related to lifestyle, disturbed sensorium and current problems and trends in mental health nursing practice. The course provides 2 hours theory and 5 hours practical experience in various mental health settings. **Prerequisites: NRSG 248, PSYC 101 and SOCI 109.** 

### NRSG 328 Child Health Nursing 5 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 illness occurring this period. This course includes 2 hours of theory and a 5 hour practical component which gives the student experience in caring for the paediatric client as well as interacting with his/her family. **Prerequisite: NRSG 318; Co-requisite: 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 two credits of theory and 50 clock hours of clinical in labor and delivery, post-partum and newborn nursery. The course is designed for the RN/M – BScN track. The course is designed for the RN/M – BScN track. **Prerequisites: NRSG 328 and NRSG 323.** 

### NRSG 338 Childbearing Family II 5 Credits

This course focuses on the intra-partum, post-partum, and neonatal periods. It emphasizes nursing responsibilities for high risk pregnancies labour 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 two hours of theory and five hours of clinical in labour and delivery, issues of HIV/AIDS and PMTCT post-partum and new-born nursery.

### Prerequisites: NRSG 238, NRSG 328 and NRSG 323.

## NRSG 345 Outpatient/Casualty Nursing 4 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 for medical, surgical, and gynaecological emergencies. Tropical diseases and basic life support are also taught. This course also prepares students for the intensive care and high dependency experience. Students also rotate in ENT clinic, Ophthalmology clinic, Dermatology clinic, Casualty Emergency rooms. *Prerequisites: NRSG 229, NRSG 323 and NRSG 328; Co-requisite: NRSG 348.* 

### NRSG 348 Critical Care Nursing 5 Credits

The course provides practice in an acute tertiary medical setting. The students are introduced to intensive care, high dependency and renal dialysis units. Learners will have opportunity to utilize relevant technology and to develop skills in caring for patients with cardiovascular, renal, trauma and neurological conditions e.g. ECG monitoring, blood gases analysis, organic transplant monitoring, cardiothoracic surgery monitoring, haemodialysis, mechanical ventilation, CPR, etc. This course includes 2 hours of theory and 5 hours of practical. *Prerequisites: NRSG 323, NRSG 328 and NRSG 229; Co-requisite: NRSG 345.* 

## NRSG 400 Education Concepts Strategies 3 Credits

The course builds upon the teaching-learning tools presented in NRSG 215: Nursing Foundation. 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.

### NRSG 412 Reproductive Health II 3 Credits

The course teaches management and nursing care of gynaecological 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. Two credits of theory and 50 clock hours of clinical are provided. The course is designed for the RN/M – BScN track. **Prerequisite: NRSG 334.** 

## NRSG 418 Child bearing Family III 5 Credits

The course teaches management and nursing care of gynaecological 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. Two hours of theory and 5 hours of clinical are provided. **Prerequisite: NRSG 338.** 

### NRSG 420 Nursing 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 opportunity for the student to gain leadership. Relevant management theories are also covered. Considerable emphasis is placed on identifying the need for change in the nursing environment and implementing such change. Three hours of theory and six (6) hours of clinical are provided. **Prerequisite: NRSG 418.** 

### NRSG 423 Nursing Research I 3 Credits

This course in research methods and utilization provides knowledge 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 in NRSG 320. *Prerequisites:* NRSG 212, NRSG 213, NRSG 215 and PHDT 202: Biostatistics in Public Health.

## NRSG 431 Nursing Research Project 2 Credits

This course builds upon NRSG 423: Introduction to Nursing Research II. It focuses implementing a research project, critique of nursing research and literature relating to evidence based practice. Students are encouraged to write publishable articles at the end of their project. **Prerequisite: NRSG 423.** 

## NRSG 438 Community Health Nursing Leadership 5 Credits

This course provides advanced knowledge of community health leadership and management skills plus practical community health experiences in both urban and rural public health settings. Theoretical concepts regarding health environments, health of special populations, disaster management, epidemiological research methods and planned change strategies are provided in class and must be utilized in practical assignments. Students are required to acquire knowledge, skills and attitudes in initiating different types of health projects. Two hours of theory and five hours of practical experience are provided.

### **DEPARTMENT OF PUBLIC HEALTH**

### **FACULTY**

Anjejo, D. -Chairperson

Barongo, A.

Fanta, A.

Khazenzi, J.

Nyaranga, C. -Field Instructor

Omambia, B. Onyango, E.

Email: hod publichealth@ueab.ac.ke

### **PHILOSOPHY**

Health is the most important human need. As public health professionals, we encourage practices that promote spiritual, physical and mental wholeness through correcting, controlling, and caring for various aspects that affect the health of the community.

### **MISSION**

The department endeavors to fulfill health needs through training students on health issues, with emphases 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**

By the end of the degree programme in public health, the student will be able to:

- Define terms associated with public health including: ecology, population, public health nutrition, environmental pollution, food hygiene, communicable and noncommunicable diseases;
- 2. Explain Biblical teachings and practice on health, hygiene and environmental protection;
- 3. Identify types of pollution and their control measures;
- 4. Describe the impact of human activities on water, land and air;

- 5. Analyse water quality control for human habitation;
- 6. Compare and contrast nutritional needs between rural and urban societies in East Africa;
- 7. Inspect market food hygiene, public water quality control and waste management systems;
- 8. Communicate strategies to prevent and control communicable and non-communicable diseases;
- 9. Explain international and national public health laws;
- 10. Lead out in managing public health units and projects;
- Carry out research leading to prevention of public health hazards.

### **CAREER OPPORTUNITIES FOR PUBLIC HEALTH**

Public health offers a very wide range of career opportunities, from major management posts to specialized roles with substantial clinical content. Many public health consultants change jobs several times in the course of their career, taking on different challenges in a way that clinical medicine seldom offers. There is also great scope to practice abroad. Upon completion of BSc. in Public Health, one can work for, and across, organizations to improve the health of a certain population group. The jobs available at health departments range from Food, Water, Housing, Occupational Health and Safety Inspectors to Health Educators; from Policy Analysts to Epidemiologists/Disease Surveillance Specialists. Those interested in working for nonprofit organizations can find jobs in health advocacy, policy, or research for organizations such as World Health Organization (WHO), Red Cross, Care International, ADRA, AMREF, UNESCO or a local non-profit organization that focuses on specific health issues. Still other public health professionals will find work in the private sector – working in randomized control trials for pharmaceutical companies or for health insurance companies.

## DEGREES AND DIPLOMAS OFFERED BY THE DEPARTMENT

- I. Bachelor of Science in Public Health (Environmental Health Option).
- 2. Minor in Public Health.
- 3. Bachelor of science in Public Health upgrading program.
- 4. Diploma in Environmental Health.

Emphasis is placed on the importance of environmental health, which is the only option that is available at present. Students are trained to recognize health conditions at all levels – from the individual to the society and communities. They are prepared to resolve issues in environmental health, and are competent on methods of surveillance and control of communicable diseases. This program can be completed in four academic years.

### **ENTRANCE REQUIREMENTS**

#### **DIRECT ENTRY**

A student who wishes to be admitted into the public health programmes under direct entry must have:

- 1. Satisfied the minimum KCSE entry requirements of the University of Eastern Africa, Baraton.
- 2. Attained a grade of C+ or above at the KCSE level, or its equivalent as evaluated by authorized bodies, in Biology, Chemistry, Mathematics or Physics, English or Kiswahili.
- 3. Foreign students from non-English speaking countries must have their high school certificates/diplomas translated in English with an accompanying statement showing how their system equates to the Kenyan system.
- 4. Students joining the University through mature age and pre-university are not eligible to study public health.

## ENTRY REQUIREMENTS FOR DIPLOMA HOLDERS IN PUBLIC HEALTH AND OTHER HEALTH RELATED PROFESSIONS

Applicants who hold diplomas in public health may be admitted into the degree programme if they meet the following requirements:

- I. A minimum mean grade of C (plain) or Division III at the Kenya Certificate of Secondary Education or its equivalent;
- 2. Hold a THREE year diploma from a recognized institution;
- 3. Have at least two years of work experienced;
- 4. A candidate who has done certificate and at least a 2 year diploma in health related programmes from a recognized institution(s) is also acceptable. Note that those with certificate training ONLY are considered for direct entry.

## EXEMPTED GENERAL EDUCATION COURSES FOR DIPLOMA HOLDERS 17 Credits

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## RECOMMENDED CORE COURSES FOR CREDIT TRANSFER 10 Credits

PHEH I I O	Introduction to	
	Environmental Health	3
PHEP 100	Principles of Epidemiology	2
PHHC 390	Community Health	
	and Diagnosis	3
PHHC 140	Introduction to Public Health	2

## RECOMMENDED COURSES FOR CHALLENGE EXAMINATION FOR DIPLOMA HOLDERS IN ENVIRONMENTAL HEALTH

The student may be allowed to challenge the following courses by sitting for a special examination or final examination for the course. These may include the following:

### CHALLENGE COURSES 12 Credits

PHEH 330	Meat Inspection and Hygiene	3
PHEH 340	Food Quality Control	3
PHEH 221	Public Health Principles in	
	Building and Construction	
	Technical Drawing	
	and Land Survey	3
PHEH 250	Water Quality Control	3

### INTERDEPARTMENTAL TRANSFER

Students admitted into other degree program but wish to enter into the public health program may do an interdepartmental transfer, provided that they have attained a B- in KCSE, and have a minimum grade of C+ in MATH 101; BIOL 111 and BIOL 112; BIOL 245; CHEM 111 and CHEM 113; PHHC 120; PHHC 140; and PHEH 110. Students transferring into public health from another department are expected to provide two character references from their respective departments, using forms provided by the Department of Public Health. Personal compliance and commitment to a healthy lifestyle are highly desirable.

### **GRADUATION REQUIREMENTS**

To graduate with a B.Sc P.H. (Environmental Health Option), a student must have:

- 1. A minimum of 152 credits with an overall GPA of at least 2.33.
- 2. A total of at least 75 credits in public health with no grade less than a C+ in all core courses and an overall GPA of at least 2.50 in the core courses.
- 3. An overall cognates GPA of 2.33 with no grade less than a  $\rm C.$

## BACHELOR OF SCIENCE IN PUBLIC HEALTH (ENVIRONMENTAL HEALTH OPTION)

### **SUMMARY**

General Education Courses	41
Core Courses	41
Specialization Courses	35
Cognates	39-40
Electives	2-5

Total 158 - 162 Credits

### GENERAL EDUCATION COURSES 41 Credits

(See the General Education Requirements section)

Students in public health are exempted from: introductory courses in HELD 110 Health Principles, ENVI 227 Environment and Society, PHYS 105 Concepts of Physical Sciences, and BIOL 105 Human Biology.

(	COGNATE COURSES 39-40				Credits	
	ACCT 110		BookKeeping and Accounting	5	3	
	BIOLIII		Human Anatomy			
			and Physiology I		4	
	BIOL 112		Human Anatomy			
			and Physiology II		4	
	CLSC 251		Principles of			
			Medical Microbiology		3	
	Or					
	BIOL 245		Basic Medical Microbiology		4	
	CHEM III		Introductory General Chemi	stry	4	
	CHEM 113		Principles of Organic and			
			Biochemistry		4	
	INSY 236		Microcomputer Applications		3	
	MATH 101		Pre-Calculus		3	
	NUTR 234		Nutrition		3	
	CLSC 353		Basic Clinical Parasitology		3	
	Or					
	<b>ZOOL</b> 325		Parasitology		3	
	BIOL 346		General Ecology		3	
	PHHC 370		Geographical Information			
			Systems in Public Health		2	
	Or					
	GEOG 255		Principles of			
			Geographic Information Syst	ems	2	

### CORE COURSES 41 Credits

ľ	JUIL JUU	 	- CII CO
	PHNL 202	Biostatistics in Health Sciences	
		and SPSS Application	3
	PHEH I I O	Introduction to	
		Environmental Health	3
	PHEP 425	Principles of Control	
		of Communicable Diseases	3
	PHEP 426	Principles of Control of	
		Non-Communicable Diseases	2
	PHHC 120	Philosophy of Health	2
	PHHC 140	Introduction to Public Health	2
	PHEP 100	Principles of Epidemiology	2
	PHHC 290	Community Health	
		and Diagnosis	3
	PHHC 296	Rural Attachment	-1
	PHHC 440	Health Promotion Seminar	2

Management of Health Services	3
	2
	2
Research Methods	2
Research Seminar I	1
Research Seminar II	2
Public Health Nutrition	2
Disaster Preparedness,	
Management and Mitigation	2
	Research Seminar I Research Seminar II Public Health Nutrition Disaster Preparedness,

# SPECIALIZATION COURSES (ENVIRONMENTAL HEALTH OPTION) 35 Credits

PHEH 160	Biology of Food Animals	2
PHEH 221	Public Health Principles in	
	Building and Construction,	
	Technical Drawing	
	and Land Survey	3
PHEH 250	Water Quality Control	3
PHEH 310	Principles of	
	Environmental Toxicology	2
PHEH 330	Meat Inspection and Hygiene	3
PHEH 340	Food Quality Control	3
PHEH 350	Vector and Rodent Control	2
PHEH 361	Liquid Waste Management	2
PHEH 362	Solid Waste Management	2
PHEH 370	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	3
PHEH 480	Professional Practice	3

ELECTIVE COURSES	2-5 Credits
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NUTR 310	Nutrition in Life Cycle	2	
CHEM 201	Environmental Chemistry	3	
PHED III	Fundamental Facts on HIV/AIDS	2	
PHHC 480A	Topics in Public Health	-1	
PHHC 480B	Topics in Public Health	2	

### MINOR IN PUBLIC HEALTH

### 35 Credits

THITOR IN TOBEROTIE ALTH				cares
	CORE COURSES 31 Cred			edits
	PHEH I I O		Introduction to	
			Environmental Health	3
	PHEH 220		Principles of Epidemiology	3
	PHEP 425		Principles of Control	
			of Communicable Diseases	3
	PHEP 426		Principles of Control of	
			Non-Communicable Diseases	2
	PHHC 140		Introduction to Public Health	2
	PHHC 290		Community Health	
			and Diagnosis	3
	PHHC 440		Health Promotion Seminar	2
	PHHC 460		Management of Health Services	3
	PHHC 461		Project Planning and Evaluation	2
	PHNT 230		Public Health Nutrition	3
	PHDT 202		Biostatistics in Public	
			Health and SPSS Application	3

### **ELECTIVE COURSES FOR MINOR** 5 Credits

Select public health courses – at least two courses with a PHEH prefix, and enough PHHC prefix courses – to make up a total of 35 credits for the minor.

### **COURSE DESCRIPTIONS**

#### **PUBLIC HEALTH CORE COURSES**

#### NUTR 330 Public Health Nutrition 2 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 deficiencies; adverse outcome of pregnancy; the role of folate and related B vitamins; Diabetes; mellitus, cancer and diet. Two lecture hours and planned field trips apply.

### PHEH 220 Principles of Epidemiology 3 Credits

This course aims at enabling students to develop knowledge and skills in the basic concepts, principles and practice of epidemiology. It is an introductory course to the basic principles and methods of epidemiology. The course explores the study of distribution and determinants of health and illness in population groups. Vital data is used in calculating and interpreting rates, and in the investigation of epidemics.

### PHEH 110 Introduction to Environmental Health 3 Credits

This course is designed to enable students to develop understanding of the role of the environment in public health. Additionally, the students will be enabled to acquire skills in assessing and managing the environment in order to protect and maintain human health. The course is an overview of the major areas of environmental health. It includes the study of ecology, population concerns, environmental factors in causing disease, and disposal of hazardous wastes. Management of the interaction between humans and the environment is discussed, with emphasis on environmental effects on human health and well-being. Three lecture hours and planned field trips.

### PHHC 120 Philosophy of Health 2 Credits

This is a course that provides background information on the Adventist/ religious concepts and approaches towards health and the prevention of illness, lifestyle diseases and health care services. It also considers the philosophy of worldwide medical missions, and the restoration to God's image in physical, mental and spiritual realms. The course integrates principles in faith, learning, and healing. Two lecture hours.

### PHHC 140 Introduction to Public Health

2 Credits

This is an introduction to the historical development of the field of public health and to current trends in health care. Political, social and economic contributions to the health of populations are also discussed.

### PHHC 190 Health Care Skills Credits

The purpose of this course is to help students acquire general Health Care skills in essentials of First aid, Principles of Pharmacology and to develop professional knowledge and skills on simple Health Care procedures e.g., Theoretical Concepts regarding Cardiopulmonary Resuscitations, Bandaging, Immobilization of Fractures, Slings, Arresting Hemorrhages, Triage, Management of Burns, Interpretation of Drug Prescriptions, Administration of Medications, Immunizations, taking and recording Vital Signs and Skills of lifting and transferring patients. The course will be done upon completion of second year of study, a minimum of 2 hours for theory and one

# PHEH 221 Public Health Principles in Building and Construction, Technical Drawing and Land Survey 3 Credits

The purpose of the course is for students to acquire knowledge and skills in the use of public health principles in building and construction. The course provides information on public health regulations that apply to construction of houses and buildings in order to ensure their safety and standards as set by the building codes and the Kenya Bureau of Standards. Topics discussed include types and sites for houses, building designs and components, health and safety features of buildings, building materials, and industrial buildings. Three lecture hours and planned field trips. **Prerequisite: PHEH 110.** 

### PHEH 250 Water Quality Control 3 Credits

The purpose of the course is to provide students with knowledge and skills in water sanitation, treatment, pollution and quality control, issues which must be dealt with in environmental health work. The course introduces the concepts used in water sanitation, treatment, pollution and quality control issues. It addresses topics in the hydrological cycle, chemistry and characteristics of water, water pollution and control, water-borne diseases, water supply, water delivery systems, water sampling for quality analysis, The Water Act of Kenya and its role in water resource management. Two lecture hours, I hour lab and planned field trips. *Prerequisite: CHEM 111, CHEM 113, PHEH 110 and BIOL 245.* 

## 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 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. Two lecture hours and I hour field practical. **Prerequisites: PHEP 100** and BIOL 245 or BIOL 476 or CLSC 250. The students from other departments intending to register for the course must fulfill requirements of their respective departments and seek approval from their advisors prior to being accepted into the course.

#### PHHC 296 Rural Attachment I credit

This course is aimed at providing opportunities for students to acquire practical skills through working in a rural public health setting. The students are enabled to develop professional responsibility preparing them for public health practice. Theoretical concepts regarding health environments, health of special population, effective school health programs, primary health care activities, Health Care systems in Kenya, role of Public Health Officers in the health fraternity and epidemiological research methods provided in class must be utilized during the attachment period. This rural practical experience is required upon completion of second year; a minimum of one hundred and twenty (120) clock hours of hands on experience will be required which translates to three (3) weeks. Upon completion, the student will present the experience in oral and written form. **Prerequisites: PHEH 100, PHEH 110, PHEH 220, PHHC 140 and PHHC 290.** 

#### 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. Emphasis is placed on food hygiene and the importance of ensuring a safe supply of food for human consumption. The course discusses the composition of foods and levels of quality, food preservation, additives, analytical methods for food safety assessment, food-borne infections and intoxication, hazard control, food standards and quality control. Practical experience is obtained through inspection of various foods. Two lecture hours, I hour lab and planned field trips. **Prerequisite: BIOL 245 or BIOL 476 or CLSC 250, PHEH IIO and PHNT 330.** 

### PHEH 361 Solid Waste Management

This course aims at providing students with knowledge and skills that are essential for safe solid waste management system. This includes the management of solid wastes and hazardous solid waste systems. Topics covered include the history and legislation of solid waste management, sources, types, and properties of solid wastes, classification of hazardous solid wastes, treatment and disposal of sewage sludge, economic considerations in solid waste management. 2 lecture hours

and planned field trips. Prerequisites: BIOL 245 or BIOL 476 or CLSC 250, PHEH I I 0 & PHNT 330.

### PHEH 362 Liquid Waste Management

1anagement 2 Credits

2 Credits

This course aims at providing students with knowledge and skills that are essential for safe liquid waste management system. This includes conservancy, water and sanitation, building science technology, and liquid hazardous waste systems. Topics covered include the history and legislation of waste management, source and properties of liquid wastes classification of liquid hazardous wastes, drainage and treatment to remove harmful substances before disposal to receiving water bodies. 2 lecture hours and planned field trips. *Prerequisites: BIOL* 245 or BIOL 476 or CLSC 253, PHEH 110 & PHNT 330.

### PHEH 370 Occupational Health and Safety 2 Credits

The purpose of the course is to provide students with knowledge in environmental and work hazards, their interactions with human health, and relevance to the effective maintenance and promotion of public health. It covers principles of occupational health, hazards, and accidents. Also it includes risk assessment, human susceptibility and interactions with occupational and environmental exposures, housing and human health, accident control, and safety management policies and legislation. Two lecture hours and planned field trips. **Prerequisites: PHEH 110 and PHEH 220.** 

### PHEP 425 Control of Communicable diseases 3 Credits

The aim of the course is to enable students to develop knowledge and skills in epidemiology, prevention and control of the common communicable and non-communicable diseases. The course uses the dynamics of epidemiology and prevention to control common communicable diseases. Topics include the definition and study of communicable diseases, the natural history of various diseases, prevention and control of diseases, and the role of public health organizations in disease control and prevention. Three lecture hours and planned field trips. **Prerequisites: PHHC 290; BIOL 245 or BIOL 476 or CLSC 253.** 

### PHEP 426 Control of Non-Communicable diseases 2 Credits

The aim of the course is to enable students to develop knowledge and skills in epidemiology, prevention and control of the common non-communicable diseases. The course uses the dynamics of epidemiology and prevention to control common non-communicable diseases. Topics include the definition and study of non-communicable diseases, the natural path in development of non-communicable diseases; their prevention and control, and the role of public health organizations in disease control and prevention. Two lecture hours and planned field trips. *Prerequisites: PHHC 290; BIOL 245 or BIOL 476 or CLSC 253 and PHEP 425.* 

### PHHC 440 Health Promotion Seminar 2 Credits

This course aims at enabling students to develop knowledge on the basic principles of health promotion and preventive health care. It equips students with necessary skills to plan, implement and evaluate a variety of health promotion programs for respective target populations. It explains the importance of health behavior, health education and promotion programs within the context of current health problems. Emphasis is on theories and models of behavior change. **Prerequisites: PHHC 290.** 

# PHHC 460 Management of Health Services, Project Planning and Evaluation 4 Credits

This course prepares students for managerial positions within the public health care system. It analyses the functions and processes of planning in health management, and reviews health personnel services. Financial management in health systems and health care policies are also discussed. In addition, it will help students develop skills in planning, implementing, monitoring and evaluating development projects. Topics covered will include: National goals, national planning, problems and needs analysis, project identification, formation and implementation, parameters and techniques used in assessing project costs and benefits, project monitoring and evaluation methodologies and project proposal writing. The student must be in his/her senior year of study to be enrolled in this course. Four lecture hours and planned field trips apply.

### PHEH 470 Pollution and Pollution Control 3 Credits

This course explores the potential for pollution in the natural resources – land, air and water. It focuses on monitoring, preventing and controlling hazardous waste pollution. It surveys the sources of pollution and their control – indoor and outdoor air pollution, underground and surface water pollution, and land pollution from agriculture and industrial sources. It includes pollution related diseases, methods for measuring pollution, and legislative control. Two lecture hours and planned field trips apply. *Prerequisites: PHEH 110, PHEH 250, PHEH 470, CHEM 111, CHEM 113, BIOL 245 and BIOL 476.* 

#### PHHC 470 Public Health Law 2 Credits

The purpose of the course is to enable students to develop understanding of the legislation that is used in public health practice. It provides an overview of the public health legislation. This includes historical case studies, types of public health law, processes of law enactment and enforcement, interpretation of public health law, laws of torts, international law and health. Three lecture hours and planned field trips. Should be taken in the very last trimester of study after all departmental courses are completed. **Prerequisites: PHEH 110 and PHEH 470.** 

### PHEH 480 Professional Practice 3 Credits

This course is aimed at providing opportunities for students to acquire practical skills through working in a public health setting. The students are enabled to develop professional responsibility preparing them for public health practice. This practical attachment is required upon completion of most of the specialization coursework. The student will develop, implement, or evaluate a public health program or project under supervision. Upon completion, the student will present the public health project in oral and written form. The student will work a minimum of 40 clock hours for each credit. This translates to 120 hours. In addition, the student upon completion will be subjected to two comprehensive exams; paper I on core courses and paper II on specialization courses. The student must score a minimum of C (Plain) in each of the papers to graduate. **Prerequisites: PHHC 495, PHHC 496 & PHHC 470.** 

#### PHHC 495 Research Methods 2 Credits

This course aims at enabling students to gain knowledge and skills in research methodology. It is an Introduction to basic concepts of research methodology in the health sciences, including problem identification, proposal development, hypothesis testing, and the literature review process. It requires the writing of a review paper and a research proposal. Two lecture hours and an oral presentation of the developed research proposal at the end of the course work. **Prerequisites: PHDT 202. INSY 236. PHHC 290 and PHHC 440.** 

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This course involves the development of the data collection instrument/ tool, piloting, data collection, coding and cleaning by Statistical Package for Social Sciences, and developing skills in data analysis through the use of relational databases and spreadsheets, and the display of information in forms. One lecture hour applies. *Prerequisite: PHHC 495*.

#### PHHC 497 Research Seminar II 2 Credits

This course requires completion of the research paper developed and implemented in research methods. A written thesis report and an oral presentation of the research project findings/results, discussions, recommendations and conclusions are presented at the end of the course. **Prerequisite: PHHC 496.** 

#### **ENVIRONMENTAL HEALTH COURSES**

### PHEH 160 Biology of Food Animals

2 Credits

The purpose of the course is to provide students with a basic knowledge of animal life as well as the anatomy and physiology of domestic food animals. Emphasis is placed on the basic science of domestic food animals. Topics covered include the importance of domestic food animals, the comparative anatomy and physiology of various animal systems from the cell level up to the organism level. Two lecture hours and one lab each week. **Prerequisites: BIOL III and BIOL II2.** 

### CHEM 201 Environmental Chemistry

3 Credits

The main purpose of the course is to provide students with knowledge of the chemical principles and processes involved in the natural world. This course initially provides foundation knowledge of natural environmental chemical processes. It focuses on important biogeochemical cycles of elements and chemical processes occurring within and across the main earth spheres.

### PHEH 310 Principles of Environmental Toxicology 2 Credits

This course is intended as an introductory Toxicology course for students in Environmental health and related disciplines. The emphasis is on principles and applications of toxicology and the toxic responses of organ systems. Examples will be chosen from toxic agents of importance in the workplace and community. **Prerequisites: PHEH 110 and PHEH 360.** 

### PHEH 330 Meat Inspection and Hygiene

3 Credits

The purpose of the course is to enable students acquire fundamental knowledge and skills that are essential to ensuring meat hygiene and safety. The course addresses the purpose, fundamentals, and principles of meat hygiene. This includes; exposure to proper use of anatomical terminology features of the abattoir, disease detection, stunning methods, postmortem inspection procedure, judgment and disposition of meat products. The course also discusses collection and sampling methods, packaging, labeling, storage and transportation, and the chain of custody. Two lecture hours and a lab each week. *Prerequisites: PHEH 160 and ZOOL 325 or CLSC 362.* 

### PHEH 350 Vectors and Rodent Control 2 Credits

This course covers the morphology, taxonomy, mechanisms of disease transmission, and impact of vectors on humans, animals, and shows how to identify and control the vectors of public health importance. Topics covered include: introduction to biology of insects and rodents, rodents and insects prevalent in Kenya, disease transmission vectors and pesticides. Three lecture hours and planned field trips apply. **Prerequisites: BIOL 111, BIOL 112, BIOL 245 and ZOOL 325.** 

### PHHD 270 Disaster Preparedness, Management and Mitigation

tion 2 Credits

This course is aimed to equip the students with knowledge and skill of handling emergencies and disasters due to natural or manmade events. Topics to be covered include the nature of emergencies and disaster, pre-disaster activities, emergency response, recovery and sustainable development, shelter and emergency settlement water supply, sanitation, food safety, vector and pest control, control of communicable diseases and prevention of epidemics, mutual service and handling of death, health promotion and community service. Two lecture hours and planned field trips apply.

### PHEH 430 Port Health 2 Credits

This course is designed to introduce students to the knowledge and practices carried out under the quarantine port health services. It deals mainly with the knowledge and practices of monitoring and inspection of people and items being transported across international borders in order to prevent the introduction, transmission and spread of communicable diseases. It also includes the topics on how to report and manage epidemic of infectious diseases when they occur according to international health regulations. Two lecture hours and a planned field trip apply. **Prerequisites: PHEP 100 and PHEP 425.** 

### PHEH 440 Environmental Systems, Planning and Impact Assessment 2 Credits

The purpose of this course is to enable students to acquire knowledge of the major environmental challenges facing planners, and the tools used to address these challenges. Emphasis is placed on current issues of environmental development and anthropogenic activities that affect the environment negatively. The course introduces environmental impact prediction, state legislation and policies on the environment, the EIA process, health impact assessment, and cumulative impacts. Two lecture hours and a planned field trip apply. **Prerequisite: PHEH 110.** 

### PHHC 460 Management of Health Services

This course prepares students for managerial positions within the public health care system. It analyses the functions and processes of planning in health management, and reviews health personnel services. Financial management in health systems and health care policies are also discussed. In addition, it will help students develop skills in planning,

3 Credits

Financial management in health systems and health care policies are also discussed. In addition, it will help students develop skills in planning, implementing, monitoring and evaluating development projects. Topics covered will include: National goals, national planning, problems and needs analysis, project identification, formation and implementation, parameters and techniques used in assessing project costs and benefits, project monitoring and evaluation methodologies and project proposal writing. The student must be in his/her senior year of study to be enrolled in this course. Four lecture hours and planned field trips apply.

### PHHC 461 Project Planning, Management and Evaluation 2 Credits

The purpose of this course is to enable students develop skills in planning, implementing, monitoring and evaluating development projects. Topics to be covered include: National goals, National planning, Problems and needs analysis, project identification, formation and implementation, Parameters and techniques used in assessing project costs and benefits, Project monitoring and evaluation methodologies and project proposal writing. Student must be in his/her senior year of study to be enrolled in this course. Two lecture hours and planned field trips apply.

### PHEH 470 Pollution and Pollution Control 3 Credits

This course explores the potential for pollution in the natural resources – land, air and water. The course focuses on monitoring, preventing and controlling hazardous waste pollution. It surveys the sources

of pollution and their control - indoor and outdoor air pollution, underground and surface water pollution, and land pollution from agriculture and industrial sources. It includes three hours of class work and planned field trips. **Prerequisites: PHEH 110 and PHHC 470.** 

#### PHEH 480 Professional Practice 3 Credits

This course is aimed at providing opportunities for students to acquire practical skills through working in a public health setting. The students are enabled to develop professional responsibility preparing them for public health practice. This practical attachment is required upon completion of most of the specialization coursework. The student will develop, implement, or evaluate a public health program or project under supervision. Upon completion, the student will present the public health project in oral and written form and will sit two comprehensive exams: in core area and area of concentration. The student will work a minimum of 40 clock hours for each credit. This translates to 120 hours. **Prerequisites: PHHC 495, PHHC 496 and PHHC 470.** 

### PHNL 202 Biostatistics in Health Sciences and SPSS Application 3 Credits

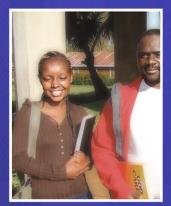
A basic course in biostatistics covering probability, probability distribution, descriptive and inferential statistics, normal distribution, sampling, t and f distributions, estimation and test of hypothesis and chi-square. The course also covers experimental designs, data tabulation, analysis of variance, tests, mean separation, transformation, linear correlation and regression. Two lectures and a two hour laboratory each week. It also examines the commonly used advanced biostatical methods for data analysis in epidemiological and clinical/health research. It describes the selection of appropriate statistical packages for data analysis and interpretation of results. A Group project is required. **Prerequisites: MATH 101, INSY 107 and PHEP 100.** 

### SUGGESTED COURSE FOR OFFER AS A GENERAL REQUIREMENT

### HLED III Fundamental Facts about HIV/AIDS 2 Credits

The purpose of the course is to equip students with knowledge and skills in the Background of HIV/Aids, HIV and the immune system, Prevention and empowerment in the HIV/Aids context, HIV/Aids counseling, Care and support, legal, Ethical and policy issues arising from HIV/Aids pandemic. Two lecture hours and oral presentations on key HIV/Aids concerns. This course will be offered as a general requirement for all university students in UEAB. Two lecture hours and a field trip apply.



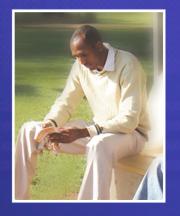






















### **SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

### DEAN - Miyayo, L.

#### **PHILOSOPHY**

From Plato to present-day educators are agreed that the life, strength and development of a nation is insured in its education, and the right to proper education is indispensable to its survival. This is the education that inculcates moral values while, at the same time cultivating good life and good citizenship. Such education must be both complete and generous as to enable a man or woman to perform justly, skillfully, and magnanimously in all the offices entrusted to him/her both private and public. Ever since its inception, and throughout its existence, the school of humanities and social sciences has been guided by the philosophy and conviction that the questing mind, creative and imaginative thinking as well as dedicated discipline and sense of duty best reflect and characterize successful and progressive educational system or process. Not only is the school dedicated to quality education and academic excellence, it also reects the conviction that humanistic disciplines are civil society's driving engine, the key to its creativity, its diversity, its imagination, and hence its spontaneousness, human rights, democratic values, tolerance, pluralism, good governance, academic freedom and liberty. The school of Humanities and Social Sciences sees no better way to understand the lessons of the past and to conceptualize the future than through the humanities and social Sciences.

#### **MISSION**

The fundamental mission of the School of Humanities and Social Sciences is to search, chronicle, develop individual talent, teach the truth, and disseminate knowledge and truth to the world within the context of service to God and humanity at large.

#### VISION

The Vision of the School of Humanities and Social Sciences is to produce world class workers in Africa.

### **OBJECTIVES**

Academic programs in the School of Humanities and Social Sciences are specifically designated to accomplish the following objectives.

- I. To provide the opportunity for students to acquire knowledge in one of the disciplines offered in the school.
- 2. To acquaint students with the various fields within the humanities and social sciences as well as their relationship to other disciplines.
- 3. To prepare and enable students appreciate the value and quintessence of humanistic disciplines as they relate to human kind and its problems.
- 4. To prepare professionals, including researchers and teachers who will, in turn contribute to the development and application of knowledge in nation building during and after their studies.
- 5. To meet academic, scholarly and professional needs of students in all aspects of their pursuits.
- 6. To help students to live their own lives as useful members of their community by inculcating moral leadership values.
- 7. To develop academic, scholarly and professional discourses and public agenda for quality education and academic excellence.
- 8. To prepare students for postgraduate studies and advanced research in humanistic disciplines.
- 9. To prepare students to teach courses in humanities and social sciences at all levels in secondary schools and teacher training colleges.
- 10. To provide a 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, renovate capacity to lead and inspire desire to protect or dream of a better future.
- 11. To provide quality higher education and academic excellence within the context of the philosophy 0education and the mission of the Seventh-day Adventist Church.

### DEGREES AND DIPLOMAS OFFERED BY THE SCHOOL

#### **BACHELORS**

- 1. Bachelor of Arts (BA) in Development Studies
- 2. Bachelor of Arts (BA) in French
- 3. Bachelor of Arts (BA) in Geography
- 4. Bachelor of Arts (BA) in History
- 5. Bachelor of Arts (BA) in Kiswahili
- 6. Bachelor of Arts (BA) in Linguistics
- 7. Bachelor of Arts (BA) in Literature
- 8. Bachelor of Arts (BA) in Music
- 9. Bachelor of Arts (BA) in Religion
- 10. Bachelor of Arts (BA) in Theology
- 11. Bachelor of Music in Music Education (BMMEd)

### **MINORS**

- 1. Minor in Development Studies
- 2. Minor in English
- 3. Minor in Environmental Studies
- 4. Minor in French
- 5. Minor in Geography
- 6. Minor in History
- 7. Minor in Kiswahili
- 8. Minor in Linguistics
- 9. Minor in Literature
- 10. Minor in Music
- II. Minor in Political Science
- 12. Minor in Religion

### **DEPARTMENT OF HISTORY, GEOGRAPHY AND DEVELOPMENT STUDIES**

### **FACULTY**

Otewa, I. - Chairperson

Musema L.

Mutiso I.

Mutunga, E.

Nyagwencha, P.

Ochuodho, S.

Omari, H.

Angwenyi, E.

Pfeiffer, B. E. -(Visiting Professor)

E-mail: hod hist@ueab.ac.ke

#### **PHILOSOPHY**

This department houses the courses in History, Geography, Development Studies and Environmental Studies. The philosophy of History maintains that the course of History from time immemorial has been determined by God and God's laws. The knowledge of Geography positively reinforces one's faith in God and His mighty work. Further, Development Studies demonstrates one's subscription to the fact that humankind is only a steward of earth's resources. Finally, Environmental Studies reveals the imposing power and knowledge of God as the creator of the universe. The Department therefore believes that God is the creator and sustainer of life and humanity remains as the stewards of God's resources in nature. This is the wholistic philosophy of Adventist Education on which the Department operates.

#### **MISSION**

To provide quality Christian Education through course development that makes the learners to be seekers of truth as outlined in the Bible and develop a deeper and holistic understanding of the human race, their institutions, activities and achievements as well as that of God Himself as the creator and supreme ruler of the universe.

#### **VISION**

To be a leading department producing competent, exemplary, hardworking, and dependable and God fearing scholars and workers capable of diligently serving wherever deployed the world over.

#### **EXPECTED LEARNING OUTCOMERS**

#### **HISTORY PROGRAMME**

By the end of the programme, the students should be able to:

- I. 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.

### **GEOGRAPHY AND ENVIRONMENTAL STUDIES**

By the end of the programme, the students should be able to:

- 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.

#### **DEVELOPMENT STUDIES**

By the end of the programme, the students should be able to:

- 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.
- 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.

### **CAREER OPPORTUNITIES**

Courses in the department 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 Programme prepares students to be facilitators of development projects besides serving as experts in the various aspects of the development process.

### ENTRANCE REQUIREMENTS

Students wishing to pursue studies leading to a Bachelors' degrees in History, and Geography must have a minimum grade of a C+ or better in respective subjects at the KCSE, or its equivalent. In the event of a lower grade than a C+, a student is expected to have bridged to the same level or obtained an equivalent or better grade at pre-university level. Admission into the Development Studies programme requires that a candidate meets the basic requirements of any of the degree program offered at UEAB. Students wishing to take Geography and

Environmental Studies are expected to have passed Geography, Maths and/or other science subjects at their KCSE levels. Otherwise they are advised to take remedial Mathematics courses, such as MATH 107.

### **COURSE DURATION**

The programmes leading to BA in History, BA/BSc in Geography BA in Development Studies are designed in such a way as to enable the candidate to complete a baccalaureate degree within four years; that is to say, a bachelor's degree consisting of a major and minor area of study or just a major area (if the student so opts with the advise and concurrence of the major advisor and Chair of the Department).

### **ACADEMIC REQUIREMENTS FOR GRADUATION**

- I. A minimum of 130-147 credits 1.
- 2. An overall, cumulative GPA of 2.00 or better. 2.
- 3. A GPA of 2.25 is required for the major area 3.

**Note:** A student taking Geography or History as a major is advised, with consultation of the major advisor and/or Chairperson of the Department, to take an appropriate minor.

# DEGREES AND DIPLOMAS OFFERED BY THE DEPARTMENT

- 1. BA -Bachelor of arts in History
- 2. BA/BSc Bachelor of Arts/Science in Geography
- 3. BA- Bachelor of arts- in Development Studies
- 4. Minor in History
- 5. Minor in Geography
- 6. Minor in Environmental Studies
- 7. Minor in Development Studies
- 8. Minor in Political Science

### **GENERAL INFORMATION**

A major in any of the programmes may be taken with a minor in any of the disciplines taught at UEAB, selected in consultation with the major advisor in or Chairperson of the Department and according to the future aspirations of the student. This is particularly advisable for those wishing to pursue a career in secondary school teaching.

**Note:** in this case, the student must have taken both subjects of study at high school level.

#### **BACHELOR OF ARTS IN HISTORY**

### **SUMMARY**

General Education Courses	47
Core requirements	56
Electives	12
Minor	30

Total 145 Credits

### **GENERAL EDUCATION COURSES** 47 Credits

See General Education Requirements section for details.

### CORE REQUIREMENTS 56 Credits

١	CORE REQU	חוע	EMEIN 13 30 Cre	eaits
	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 306		Fundamentals of Historiography	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

### **ELECTIVES FOR MAJOR**

**12 Credits** 

Students taking a major in History may freely select electives below.

**Note:** Choose only one course from Hist 313 to Hist 316.

TTOCC. CHO	<i>)</i> 50	of the course from this 313 to the	31 2 1 0	•
HIST 313		Themes in East African History	3	
Or				
HIST 314		History of		
		North Africa since 1890	2	
Or				
HIST 315		History of		
		West Africa since 1800	2	
Or				
HIST 316		History of Central		
		and Southern Africa	2	
HIST 217		History of Latin America	3	
RELH 226		History of SDA Church	2	
HIST 400		Introduction to		
		Environmental History	2	
HIST 450		Topics in History of		
		Post - Independent Kenya's	3	
HIST 451		Topics in History	2	
HIST 455		African Diaspora and		
		Pan-Africanism	3	
ARCH 220		Foundations of archaeology	3	
ARCH 200		Archaeology of East Africa	3	
ARCH 310		Studies on origins of Modern		
		Man and Society	3	
		-		

### **MINOR IN HISTORY**

### **SUMMARY**

Core Courses	27
Elective Courses	6

Total 33 Credits

CORE COURSES 27 Cre		
HIST 120	History of Kenya I: to 1900	3
HIST 121	History of Kenya 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 130	History of Africa I: before 1900	3
HIST 131	History of Africa II: since 1900	3
HIST 227	History of Europe 1919-1990	3
HIST 230	History of the USSR 1917- 1991	3

### **ELECTIVE COURSES**

### 9 Credits

Students taking a minor in History may freely select electives below.

Note: Choose only one course from HIST 313 to HIST 316.

HIST 313	Themes in East African History	3
Or		
HIST 314	History of North Africa since 1890	2
Or		
HIST 315	History of West Africa since 1800	2
Or		
HIST 316	History of Central and	
	Southern Africa	2
HIST 305	Fundamentals of Historiography	3
HIST 445	Historical Research Methods	3
HIST 333	Economic history of Africa	3

### MINOR IN POLITICAL SCIENCE

### **SUMMARY**

Core Courses 24
Elective Courses 6

Total 30 Credits

CORE COURSES 24 Cred				
	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 443		African Political Thought	3
	POLS 440		History of Political Thought	3

### **ELECTIVE COURSES**

### **6 Credits**

Students taking a minor in political Science may choose 6 credits from the following courses.

0.00.00	 	
POLS 220	Africa in International Relations	3
POLS 320	Local Government	
	politics in Kenya	3
POLS 430	Politics and Environmental	
	Welfare	3
DEST 440	Politics of Development	3
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# GEOGRAPHY AND ENVIRONMENT PROGRAMME BACHELOR OF ARTS/SCIENCE IN GEOGRAPHY

### **SUMMARY**

General Education Courses	47
Core Courses	55
Elective Courses	15
Minor Courses	25-28

Total 142-145 Credits

### CORE COURSES 55 Credits

(	COKE COU	KSI	:S 55 Cre	edits
	GEOG 100		World Regional Geography	3
	GEOG III		Fundamentals of	
			Physical Geography I	3
	GEOG 112		Fundamentals of	
			Physical Geography II	3
	GEOG 121		Fundamentals of	
			Human Geography I	3
	GEOG 122		Fundamentals of	
			Human Geography	3
	GEOG 130		Introduction to Cartography,	
			Mapwork and Surveying	3
	GEOG 221		Air-photo Interpretation and	
			Remote Sensing	3
	GEOG 225		Statistics and Quantitative	
			Techniques in Geography	3
	GEOG 300		Research Methods in Geography	3
	GEOG 311		Geography of Kenya	3
	GEOG 312		Geography of Development	2 3
	GEOG 313		Geography of East Africa	3
	GEOG 330		Meteorology and climatology	3
	GEOG 334		The Arid and Semi-Arid Lands	3
	GEOG 355		Geographical	
			Information Systems	3
	GEOG 420		History of Geographic thought	3
	GEOG 450		Selected Topics in Geography	2
	GEOG 455		People, Land and Food	3
	GEOG 480		Independent Study in Geography	3
	OR			
	GEOG 482		Geographical Practicum	3

### **ELECTIVE COURSES**

### **15 Credits**

Students are free to choose elective from either option A or B but with at least 12 credits from one option and at least 3 from the other.

### **OPTION A**

OI HON A		
GEOG 226	The geography of	
	Tourism and Leisure	3
GEOG 210	Economic Geography	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 and 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 470	Demography	3
<b>OPTION B</b>		
GEOG 328	Geomorphology	3
<b>GEOG 332</b>	Biogeography	3
<b>GEOG 358</b>	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

#### 

(24 credits of core requirements, plus 4 hours from option A and/or B of the major electives all of which must be level 4 courses)

CORE COURSES 24 C		dits
GEOG III	Fundamentals of	
	Physical Geography I	3
GEOG 112	Fundamentals of	
	Physical Geography II	3
GEOG 121	Fundamentals of	
	Human Geography I	3
GEOG 122	Fundamentals of	
	Human Geography II	3
GEOG 130	Introduction to Cartography,	
	Mapwork and Surveying	3
GEOG 225	Statistics and Quantitative	
	Techniques in Geography	3
GEOG 313	Geography of East Africa	3
GEOG 330	Climatology and Meteorology	3

### **MINOR IN**

NVIRONMENTAL STUDIES 2	8	Credits
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### **SUMMARY**

Core Courses	24
Elective Courses	4

Total 28 Credits

### CORE COURSES 24 Credits

ENVI I I O	Introduction to	
	Environmental Science	3
ENVI I I 3	Fundamentals of	
	Physical Environment	3
ENVI 210	Environment and Development	3
ENVI 310	Environmental Ethics	3
ENVI 336	Hydrology and Water Resources	3
ENVI 354	Resource	
	Development and People	3

ENVI 356	Environment and	
	Development Policy	3
ENVI 442	Water Resources,	
	Environment and Development	3

### **ELECTIVE COURSES**

### **4 Credits**

(4 Credits, excluding credits already studied in major and/or minor areas in Geography, at least 3 credits must be level 4)

	0 1 /	
ENVI 115	Fundamentals of	
	Atmospheric Science	2
ENVI 320	Elements of Environmental Law	2
ENVI 350	Forum on the Environment	2
ENVI 380	Agroforestry	2
ENVI 460	Natural Resource Evaluation,	
	Management and Development	3
ENVI 470	Special Topics in Environment	2
GEOG 221	Air-photo Interpretation	
	and Remote Sensing	3
GEOG 330	Climatology and Meteorology	3
GEOG 334	The Arid and Semi-Arid Lands	3
GEOG 332	Biogeography	3
GEOG 355	Geographical	
	Information Systems	3
GEOG 358	Medical Geography	3
GEOG 411	Geography of natural hazards	3
GEOG 412	Urbanization in	
	Developing Countries	3
<b>GEOG 435</b>	Applied Geomorphology	3
GEOG 440	Advanced Air-Photo	
	Interpretation and	
	Remote Sensing	3
GEOG 455	People, Land and Food	3
PHEH 360	Waste Management	3

### **BACHELOR OF ARTS IN DEVELOPMENT STUDIES**

### **SUMMARY**

General Educational Courses	47
Core Courses	67
Elective Courses	9
Minor Area Courses	25

Total 148 Credits

### **GENERAL EDUCATION COURSES** 47 Credits

See General Education Requirements section for details.

CORE COURSES 70 Cre		
DEST 100	History and	
	Concepts of Development	3
DEST 140	Community Leadership	
	and Development	3
DEST 150	Ethics in Development	3
DEST 198	Perspectives of Poverty	3
DEST 250	Gender Issues in Development	3
DEST 270	Disaster Preparedness	
	and Management	3
DEST 275	Rural Development	3
DEST 307	Research Methods	
	in Development Studies	3
DEST 345	Ethnographic Studies in	
	Development	3
DEST350	Conflict Management and	
	Resolution	3
DEST 360	NGOs: Management and	
	Leadership	3
DEST 365	Environmental Impact Assessment	3
DEST 370	Project Planning, Implementation,	
	Monitoring and Evaluation	4
DEST 380	Studies in Community Health	3
DEST 390	Principles of Population and	
	Demography	3
DEST 400	Resources Evaluation,	
	Management and Development	3
DEST 410	Proposal and Grant writing	3
DEST 430	Financial Accountability	
DEST 440	Politics in and of Development	3
DEST 470	Sustainable Development	3

DEST 485	Independent Study in	
	Development Studies	3
DEST 490	Field Attachment	3

### **ELECTIVE COURSES**

9 credits

Students majoring in Development Studies will choose a total of 9 Credits from at least any one (1) section from below:

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Co-Operative and other Social	
Movements in Development	3
Studies on displaced persons	3
The Mass Media in Development	3
Development perspectives	
0. 0.000200.0	3
Aid and Development	3
Urbanization and Development	3
Small Business Enterprises	3
Development Education	3
·	3
Regional Development Planning	3
Agriculture in Societal welfare	3
Environment and Development	
Policy	3
Water Resources, Environment	
and Development	3
Communication in development	3
Human Resource Development	
and Management	3
,	
Framework	3
Human Rights	3
	Movements in Development Studies on displaced persons The Mass Media in Development Development perspectives of Globalization Aid and Development  Urbanization and Development Small Business Enterprises Development Education Development Economics Regional Development Planning  Agriculture in Societal welfare Environment and Development Policy Water Resources, Environment and Development  Communication in development Human Resource Development and Management Developments in the Legal

Issues in Governance

**DEST 420** 

### MINOR IN DEVELOPMENT STUDIES 34 Credits

### **SUMMARY**

Core Courses 28
Elective Courses 6

Total 34 Credits

### CORE COURSES

### 28 Credits

CORE COOKS	E3 20 Cre	cuits
DEST 100	History and Concepts of	
	Development	3
DEST 140	Community Leadership and	
	Development	3
DEST 250	Gender Issues in Development	3
DEST 270	Disaster Preparedness	
	and Management	3
DEST 350	Conflict Management and	
	Resolution	3
DEST 360	NGOs: Management and	
	Leadership	3
<b>DEST 370</b>	Project Planning, Implementation,	
	Monitoring and Evaluation	4
DEST 410	Proposal and Grant writing	3

### **ELECTIVE COURSES**

### **6 Credits**

Students taking a minor in Development Studies should select at least two (2) courses from any one of the four sections under the elective courses.

### **COURSE DESCRIPTIONS**

#### **HISTORY**

#### **EUROPEAN AND WORLD HISTORY**

# HIST III Concepts of World Civilizations (GR)2 Credits

This is a survey course which examines the origins and development of the world civilizations from the earliest beginnings to I 800. 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 225 History of Europe from 1789-1919 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 1919-1990 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" glasnost" will also be explored, studied, analyzed, and discussed in historical perspective.

# HIST 460 Modern Nationalism and the History of Unification in Europe 3 Credits

This course typically examines nineteenth and twentieth century Europe from the formative period of the unification of Germany and Italy to the rise of European Union, with particular emphasis on modern nationalism as well as on social, political, cultural and economic forces that form the background for the rise and development of nationalism.

#### THE AMERICAS

### 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 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 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.

#### **HISTORY OF AFRICA**

### 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 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; postindependence 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; precolonial 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 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 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 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 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.

#### **GENERAL**

# 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 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 445 Historical Research Methods 3 Credits

This course is designed to provide the students with a variety of skills and approaches to historical research methodo logies. 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.

# HIST 400 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 451 Topics in History (outside Africa)

2 Credits

Special topics are chosen apriori 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 480 Philosophy of History 2 Credits

This course critically examines the meaning, role and functions of philosophy of history. The major schools thought of considering idealism, naturalism, and supernaturalism will be analyzed. Attention will also be on theories of history methods and contemporary trends in the development of philosophy of history.

# 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 trimester but may if need be, spill over to another trimester – indicative of the amount of input and quality of work expected of each student.

Prerequisite: HIST 445 or permission of instructor.

#### **POLITICAL SCIENCE**

# 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 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 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

Since the industrial revolution, human use of natural resources has increased substantially. So has the influence of human activities on many ecological systems. These developments generate new challenges for environmental governance. The fact that the boundaries of states rarely coincide with those of ecosystems or systems of human activity implies that effective governance on the use of natural resources and environmental services often requires international cooperation. This course examines the human activities on the environment as a challenge to environmental conservation, assesses and explains achievements and failures of international regimes and organizations, and explores various measures found in environmental governance.

# 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 hinkers 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.

### **ARCHAEOLOGY**

# 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 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 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 occupance of earth through millennia.

### **GEOGRAPHY**

#### **REGIONAL STUDIES SET**

## GEOG 100 World Regional Geography 3 Credits

This course is designated 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 311** Geography of Kenya 3 Credits

A systematic study of Kenyan environment with special emphasis directed upon the physical, climatic, pedological, vegetational and human environments; resources potential and development constraints. Field trip esssential and graded.

# GEOG 313 Geography of East Africa 3 Credits

A study of East African natural and human environment covering Kenya, Uganda and Tanzania as a socio-politic economic region. Special thrust will be directed to the actual and potential human and natural resources for socio-economic development as well as its developmental constraints.

#### **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.

### **HUMAN AND CULTURAL GEOGRAPHY SET**

#### **GEOG 121** Fundamentals of **Human Geography I** 3 Credits

Introduction to the main fields of human geography with emphasis on the basic components of spatial organization of society: population distribution patterns of rural settlement, rural land use and economic activity, and urban settlement, land use and economy, spatial relation and interaction. May require field trip as determined by the instructor.

#### **GEOG 122 Fundamentals of Human Geography II** 3 Credits

Concept of the region, spatial processes, diffusion and interaction; measurement and analytical techniques, theories relating to patterns and processes are an important feature of the course. May require field trip as determined by the instructor.

#### **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 226 Geography of Tourism** and Leisure

3 Credits

Definitions of tourism, recreation, travel and touristic activities; 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.

#### **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 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 326** Agricultural Geography 3 Credits

The scope of agricultural geography; problems of classification in agricultural geography, tropical agricultural land use and location modification; agricultural decision analysis; the role of physical environment, simple biological basis of farming, tropical vis-a-vis sub tropical agriculture; political, Economic and Social factors in agriculture; analysis of various systems of world agriculture; African land use; research techniques in Agricultural geography. Field visits arranged as required.

# 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 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 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, multilocational organization, growth transmission. **Prerequisites: GEOG 121 and GEOG 122 or permission from the department chairperson.** 

### **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 Taafe-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 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 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.* 

### **PHYSICAL GEOGRAPHY SET**

# GEOG III Fundamentals of Physical Geography I 3 Credits

The atmosphere, biosphere, hydrosphere, and lithosphere as interrelated and geographically variable components of the earth's physical system. the natural environment of man. Emphasis on the major Earth's geologic and topographic features as caused by endogenetic and exogenetic processes. Theories of landform development, mass movements, erosion by wind and water. Introduction to soils. Linkages to the earth's biota, its distribution, and relationships among them and between them and the physical environment factors. Ecosystem concept. Field trip arranged as required.

# GEOG 112 Fundamentals of Physical Geography II 3 Credits

A study of the hydrosphere with emphasis on the world hydrologic cycle, evaporation, and evapotranspiration, moisture in the atmosphere, clouds; causes and characteristics of precipitation and its anomalies in areal and temporal contextw.r.t Kenya; water balance concept, origin and evolution of rivers, drainage network; ground water; and stream flow. The earth's atmosphere, global atmospheric circulation; weather and climate and its variability in time and space. Development implications of the atmosphere-water system. Field trip arranged as required. **Prerequisite: GEOG 111.** 

### 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 place 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 III and GEOG II2.

# GEOG 330 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; global scale climate change: planned and inadvertent weather modification; 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 lecturers and one three hour laboratory per week. **Prerequisite: GEOG 112.** 

### **TECHNIQUES AND MAPPING IN GEOGRAPHY SET**

GEOG 130 Introductions to Cartography,
Mapwork and

Surveying 3 Credits

The course aims at introducing the students to the basics of cartography, map reading and map interpretation with special emphasis on the tools and techniques. Analysis of site and situation, properties and construction of map projections, map design, preparations and map interpretation will be covered. The course also includes a case study of East African map sheets. The course further, gives the students an introduction to the basics of surveying instruments, and field practice through plane tabling, prismatic compass and chain survey, slope profiling, etc. Two lecturers and two-three hour laboratory per week are recommended.

# GEOG 221 Air-Photo Interpretation and Remote Sensing 3 Credits

An introduction to basic concepts, principles, techniques, and applications of aerial photography and remote sensing in geography and resource assessment. Three lectures and one three hour laboratory per week. Field trip mandatory.

# GEOG 225 Statistics and Quantitative Techniques in Geography 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 non-parametric methods, correlation will also be introduced. Aspects such as network analysis (river system), network pattern, network description using beta and gama indices and communications networks, points patterns, area patterns, etc. **Prerequisite: GEOG 130, or permission of department chair.** 

# GEOG 255 Principles of Geographical Information Systems 3 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 124, INSY 106 and MATH 107, or MATH 115 or MATH 171.** 

### GEOG 300 Research Methods in Geography 3 Credits

Formulation and solution of geographic problems; models, research, design, and methods of gathering, analyzing and interpreting the data; presenting the results. **Prerequisite: GEOG 225, or permission of chairperson. Field trip - as determined by instructor.** 

# GEOG 355 Geographical Information Systems 3 Credits

This 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 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 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 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 221.** 

## ENVIRONMENTAL AND RESOURCE MANAGEMENT STUDIES SET

### GEOG 332 Biogeography 3 Credits

Scope of Biogeography; historical developments; current theoretical approaches; evolution trends of organisms and biogeography; biomass, comparative analysis of selected biomies, 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 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. Ethnomedicine/medical pluralism; medical plants, their conservation & preservation, elements of Geomedicine.

### 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, the role of the Kenya Soil Survey. Three lectures, one three hour laboratory/field work per week.

### 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 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, geormorphology in civil engineering. Field studies are an important component of this course. **Prerequisite: GEOG 328.** 

### **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.

# ENVI 110 Introduction to Environmental Science 3 Credits

Themes and Concepts: Environment, Science, Environmental Science. Physical environment: Atmosphere, Lithosphere and soil, hydrosphere, biosphere. Human population and the physical environmental resources: minerals, energy, forests and rangelands; biodiversity. Wastes and pollution: Types of pollutants, acidification, eutrophication of water bodies, ozone layer and its dilemma, climate change, desertification, life cycles of pollutants. Environmental sustainability.

# ENVI 113 Fundamentals of Physical Environment 3 Credits

The Atmosphere, the hydrosphere, the pedolithosphere, the biosphere. Unity of the physical environment: biogeochemical cycles. Atmosphere: composition and structure; atmospheric circulation; climate change and aridity. Ecosystems: terrestrial biomes; wetlands; quantity, quality and circulation of water. Rocks, minerals and soil formation, properties, degradation and conservation. Human activity in physical environmental framework.

## ENVI 115 Fundamentals of Atmospheric Science 2 Credits

The atmosphere: Identity, structure and composition; atmospheric heating, treat 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

The concepts of Environment and Development. Economics versus ethics of development and environmental welfare. Population growth, agriculture and industry in development. The concepts of poverty; poverty and environmental degradation. Conservation strategies. The concept of sustainable development: resources; green and deep ecology; biodiversity; environmental quality and human societies.

# 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 310** Environmental Ethics 3 Credits

This course introduces the concept of Ethics as it relates to the Environment. The major topics to be discussed include: The challenge and Development of Environment Ethics; Kinds of Environment Ethics such as ecological extension; Environmental worldview such as Human centred, Life centred and Earth centred; and Environmental Ethics and politics in cases like social ecology and Environment, ecofeminism and Environment and deep ecology.

### 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, subsurface 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

Assessment and analysis of the interaction of environmental, social, economic, and political factors in the development process. Issues to be dealt with includes land degradation, soil erosion, deforestation, technology, and renewable natural resources. Policy implications. Case studies mainly from Kenya and the Eastern region.

### ENVI 380 Agroforestry 2 Credits

Definition; emerging concepts; Environmental, economic and social relevance. Buffer zone; shamba system; Agri-agroforestry; urban agroforestry. Contemporary policy issues in agroforestry. The challenges to agroforestry practice.

# ENVI 442 Water Resources, Environment and Development 3 Credits

A casual look at Hydrology. Advanced and applied perspectives of water resources, their utility and their relation to society's and general environments well being. A detailed examination of water utility; constraints to such utilities and suggested solutions; Problems of water utilization to society and environment. Riparian waters, their problems to and potentials for regional integration and differentiation. **Prerequisites. ENVI 336.** 

# ENVI 460 Natural Resource Evaluation, Management and Development 3 Credits

An analysis of resource management theory and of practical problems involved in formulating, implementing and evaluation mineral resources, renewable resources environmental management systems and policies. Field trip as determined by instructor.

### ENVI 470 Special Topics in Environment

A course of study chosen from the domain of environmental studies and pursued by the student under the supervision of an appointed lecturer of the department. The study topic should be on an issue that has stimulated, stimulate and/or may continue to stimulate interest in environmental studies, but not obviously related to what has been covered in the other courses covered in class. The outcome of the study should be seen to add a new dimension into the environmental studies as covered in the department.

2 Credits

### **GENERAL GEOGRAPHY SET**

# GEOG 420 History of Geographic Thought 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 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 480 Independent Research Study in Geography 3 Credits

This course exposes students to independent field research in preparation for post graduate studies. It demands application of acquired theoretical knowledge of research techniques and methods. It further aims at developing their ability to decide, plan and deploy available resources for research, analysis and interpretation of data. Open to senior students only. **Prerequisite: GEOG 300** (**Research Methods in Geography**).

### 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.

### **DEVELOPMENT STUDIES**

# DEST 100 Concepts and History of Development 3 Credits

This is an introductory course in development studies which provides a vigorous inter disciplinary, 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; Agrarian question and food security; issues in gender and development; challenges of development in third world countries will be covered.

# DEST 140 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 ommunity 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 150** 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 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 198** Perspectives of Poverty 3 Credits

Poverty as a social issue; poverty in a wider perspective: economic, social, spiritual, technological, mental, etc. Causes of poverty; critical examination of poverty alleviation measures. The role of both local and international community in regional poverty and local poverty; overview of role of globalization.

### 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 Cooperative 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 270 Disaster Preparedness and Management 3 Credits

The course covers aspects of disaster like: definition, types and causes; disaster in history; disaster perception; preparedness and mitigation; role of local community government, nongovernmental and in the economic well-being of a people; early warning systems.

### **DEST 275** 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 programmes of rural development; community sensitization and mobilization for development; the central and local governments in rural development and Catalysts of rural development.

# DEST 307 Research Methods in Development Studies 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, analysing and interpreting data; discussing findings; presenting results, making conclusions and recommendation .

# DEST 345 Ethnographic Studies in 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 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 357 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 360 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 363 Urbanization and Development 3 Credits

The course will examine the urban centre 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 centres as hubs of regional development.

### DEST 365 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 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 & E Frameworks; M & E plans and components; Define an indicator as used in M & E and the characteristics of a good indicator and, factors affecting M & E of projects.

### 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 measuresformal 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 385 Agriculture in Societal Welfare 3 Credits

Consideration shall be made of the following: Agriculture, what is it? Agriculture is an enterprise and the ultimate backbone of any economy: agriculture in economic social and political welfare. Concepts in agricultural production; food policies and food security; Science and agricultural production; Land tenure systems and food sufficiency. Agriculture in developed and developing economies. Food sufficiency in the international perspective: the role of multiband transnational organizations; Financing of agricultural production; Problems and prospects of agriculture especially in developing countries.

# 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 395 Small Business Enterprises 3 Credits

The course deals with, among other topics: Types of businesses. The concept of a business enterprise. Principles and problems of starting a small business. Managing and operating a small business and associated challenges: staffing, marketing of the products and the business itself. Risk management. The physical facilities and financing of a small business; The Business Plan, and sources of funding.

## **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 400 Resource Evaluation, Management and Development 3 Credits

This course focuses on the analysis of various resources, the management theory and practical problems involved in formulating; implementing and evaluating mineral resources, renewable resources, environmental management systems and policies are the main components of the course.

# 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 behaviour; Developing competencies. Stress management at work; appraisal, motivation discipline, conflict resolution; job design for effective performance: appropriate workforce; promoting organisational excellence for effective performance. Managing Activities: The roleand tasks of managers: delegation, motivating, planning. Communication in organisations; Working environment: organisational functions, cultures, structures and differing organisational design principles. Improving the working environment; Managing in a competitive, globalizing environment. Managing information: in the decision and communication processes of organisations. Human Resourcing In Organisations: Identification of the need for; motivation and development people within the organisation; 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 415 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 420 Issues in Governance and Society 3 Credits

Topics covered include: The perspectives of society; the concepts of civil society, social movements and social capital. Role of the civil society in development: power and subjugation of the few by the many; how the development process is enhanced and/ or blocked and threatened, by the fluid discourses between government and the civil society. the outcomes these encounters have had on shaping development practices, institutions, ideas, and agendas: resource mobilisation, political opportunities, networks, identity, Governance systems, Government revenue and expenditure partnership among and stakes of Government, Non-governmental development process; independence, democracy and the development process: the pros and cons; Environmental governance, problems and policy etc. Historical role in development of social movements and therefore contemporary politics on issues like global institutions, new property rights' regimes, and against certain types of science and technology.

## DEST 422 Development Education

3 Credits

The course shall synthesize: Nature of education; types of education; objectives of education. Education as a tool for improving the quality of life: Education and health; Industrialization, food security, peace etc. and challenges to

education and therefore development.

## DEST 425 Development Economics

3 Credits

Topics covered shall include: Economics: The concept, and nature; Resources: the concept and nature; why relevance of economics in resource development. Societal welfare and availability and distribution of material wealth. Funding for development: internal and external sourcing: advantages and disadvantages: the role of the masses in development. Measurement of economic growth.

## DEST 427 Regional Development Planning 3 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 430 Financial Accountability 3 Credits

The course aims at a leaders' 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.

## DEST 440 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 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 & 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; the concept of Green/deep ecology.

## 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 & 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; the concept of Green/deep ecology.

## DEST 485 Independent Study in Development Studies 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/Practicum in Development Studies 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.

## **DEPARTMENT OF LANGUAGES AND LITERATURE**

#### **FACULTY**

Mooka, E. -Chairperson Abura, I. -on study leave

Amba, P. Amenva. H Baongoli, M

Barno, H.

Choti. I. -on study leave

Kariuki, S. Machogu, O. Mambo, M. Mwita, M. Ondari, H. Too. S.

Email: hod languages@ueab.ac.ke

#### **PHILOSOPHY**

One of the essential endowments that the Creator has provided the human race with is language. The study of language, among other things, is an appreciation of this endowment. There are two important aspects in the study of language. One is the learning of communication skills through writing, reading, grammar, and studying the roots and structure of the language and its use in various contexts. The other is appreciating God's creative genius reflected in man's creative and imaginative use of language through studying a variety of literary works. The three languages: English, Kiswahili and French can be used as instruments of communication, developing human dimensions and literary thought. They can also be used as instruments for integrating faith and learning.

#### MISSION

To enhance verbal and written communication skills, to facilitate the understanding of language, to promote the appreciation and critical study of literature in all its forms and to instill in the students the habit of using language proficiently and appropriately in the service to God and Mankind.

#### VISION

To be the choice department for those who wish to pursue a degree in Languages, Linguistics, or Literature.

#### PROGRAMS IN THE DEPARTMENT

- I. English
- 2. French
- Kiswahili

#### **DEGREES AND DIPLOMAS OFFERED**

#### **DEGREES OFFERED:**

- 1. Bachelor of Arts in English Language
- 2. Bachelor of Arts in Linguistics
- Bachelor of Arts in French
- Bachelor of Arts in Kiswahili
- 5. Bachelor of Arts in Literature
- Minor in English Language
- Minor in French
- Minor in Kiswahili
- Minor in Literature
- 10. Minor in Linguistics

#### **DIPLOMAS AND CERTIFICATES OFFERED**

- 1. Certificate in French
- Certificate in English
- Certificate in Kiswahili
- Certificate in German
- Certificate in Lingala

#### **EXPECTED LEARNING OUTCOMES**

## **English Programme**

By the end of the degree programme 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. Analyse 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 of literary texts;
- 10. Write compositions using common and uncommon expressions in English language;
- II. Submit a research project with such subtopics 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 minutes speech in English language.
- 14. Pursue graduate studies in linguistics or literature.

#### Kiswahili Programme

By the end of the degree programme in Kiswahili language and literature, the student should be able to:

- I. 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. Read, write and translate texts from English to Kiswahili and from Kiswahili to English language;
- 6. Explain the application of phonetic science to the process of acquiring and transmitting proper pronunciation of Kiswahili words as a Bantu language;
- 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;
- Analyse and interpret traditional short stories, modern short stories in news papers, 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.

#### French Programme

By the end of the degree programme in French, the student should be able to:

- 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 aloud, 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, Asia and the Caribbeans:
- 7. Identify principles and concepts of areas and branches of contemporary French language;
- 8. Analyse and critique French literary works considering, style and stylistics, schools of styles, theories and approaches;

- 9. Identify and use French semantics and lexicon;
- 10. Read and interpret French literature written in Africa, Europe, Asia, North America and the Caribbeans;
- Demonstrate in writing and speech the use of specialized and technical language related to the hotel, tourism, travel and hospitality industries;
- 12. Identify and explain aspects of French culture and civilization as depicted in the language, literature, cuisine, fashion industry as well as in French social-economic activities;
- 13. Carry out a research or project in French language;
- 14. Give out at least a thirty minute speech in French;
- 15. Pursue graduate studies in French language.

## CAREER OPPORTUNITIES IN LANGUAGES, LINGUISTICS, AND LITERATURE:

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 presentation, 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, research, public relations, secretariat (administrative secretary, diplomatic secretary, bilingual secretary, private assistant...), marketing, advertising, international relations, diplomacy, hotel industry, tourism, research etc.

### **ENTRANCE REQUIREMENTS:**

In addition to meeting University entrance requirements, a grade of C+ in English, Kiswahili, and/or French respectively in KCSE or its equivalent is required.

## GRADUATION REQUIREMENTS FOR ENGLISH, FRENCH. AND KISWAHILI ARE AS FOLLOWS:

- I. A minimum of 144 Credits.
- 2. French majors must take a minor in another area with at least 25 credit hours
- 3. A minimum cumulative GPA of 2.00
- 4. A minimum overall GPA of 2.25 is required for a major in English, French and Kiswahili.
- 5. A minimum GPA of 2.00 for a minor (where one has been taken)
- 6. Those majoring in English language, Linguistics, Kiswahili, or French must take a minor in anyof the given options.
- 7. Students taking a major in English language should not take a minor in Linguistics and vice versa.

#### **OPTIONS AVAILABLE:**

The following options are available for language students:

- An English Language or Linguistics major can take a minor in Literature.
- A Literature major can take a minor in Language or Linguistics.
- 3. A student can take a Literature major without a minor.
- 4. A Literature, Language or Linguistics major can minor in any other relevant area of choice.
- 5. A French major may take a minor in the languages or any other relevant area of their choice.

# CORE REQUIREMENTS FOR ALL STUDENTS TAKING ENGLISH LANGUAGE, LINGUISTICS, LITERATURE

## CORE COURSES IN ENGLISH LANGUAGE, LINGUISTICS, AND LITERATURE 44 Credits

ENGL 140	The Art of Writing	3
ENGL 142	Phonetics and Phonology	3
ENGL 144	Introduction to English Grammar	3
ENGL 244	Discourse Analysis	3
ENGL 341	Trends in the Development	
	of English	3
ENGL 342	Sociolinguistics	3
ENGL 347	Language Acquisition	3
ENGL 470	Research project I	3
ENGL 471	Research project II	2
LITE 156	East African Prose Fiction	3
LITE 157	East African Drama and Poetry	3
LITE 352	Theories of Literature and Stylistics	3
LITE 451	Major Author	3
LITE 453	Literary Studies of the English Bible	3
LITE 465	Creative Writing	3

#### **BACHELOR OF ARTS IN ENGLISH LANGUAGE**

#### SUMMARY

General Education Courses	47 - 49
Core Courses	44
Specialization	24
Elective Courses	6
Minor	27

Total 144-146 Credits

#### **ENGLISH LANGUAGE**

SPECIALIZATION 24 Cred				
ENGL 145		English Grammar and Usage	3	
ENGL 241		Morphology	3	
ENGL 349		Syntax	3	
ENGL 435		Editing Skills	3	
ENGL 441		Semantics and Pragmatics	3	
ENGL 442		Language and Gender	3	
ENGL 447		Translation and Interpretation	3	
LITE 345		Linguistics and the Study		
		of Literature	3	

MINOR IN ENGLISH LANGUAGE 27 Credits					
ENGL 141		Introduction to the Study			
		of Language	3		
ENGL 142		Phonetics and Phonology	3		
ENGL 144		Introduction to English Grammar	3		
ENGL 145		English Grammar and Usage	3		
ENGL 241		Morphology	3		
ENGL 349		Syntax	3		
ENGL 341		Trends in the Development			
		of English	3		
ENGL 347		Language Acquisition	3		
ENGL 441		Semantics and Pragmatics	3		

#### **BACHELOR OF ARTS IN LINGUISTICS**

#### **SUMMARY**

General Education Courses	47 - 49
Core Courses	44
Specialization	24
Elective Courses	6
Minor	25

Total 144-149 Credits

## LINGUISTICS SPECIALIZATION 24 Credits

ENGL 145	English Grammar and Usage	3
ENGL 241	Morphology	3
ENGL 349	Syntax	3
ENGL 420	Applied Linguistics	3
ENGL 441	Semantics and Pragmatics	3
ENGL 442	Language and Gender	3
ENGL 445	History and	
	Comparative Linguistics	3
ENGL 447	Translation and Interpretation	3

### MINOR IN LINGUISTICS 27 Credits

	Art of Writing	3			
	Introduction to Study				
	of Language	3			
	Phonetics and Phonology	3			
	Introduction to English Grammar	3			
	Morphology	3			
	Discourse Analysis	3			
	Sociolinguistics	3			
	Applied Linguistics	3			
	Semantics and Pragmatics	3			
		Introduction to Study of Language Phonetics and Phonology Introduction to English Grammar Morphology Discourse Analysis Sociolinguistics Applied Linguistics			

## ELECTIVES FOR STUDENTS TAKING ENGLISH LANGUAGE AND LINGUISTICS 6 Credits

ENGL 346	English for Specific Purposes	3
ENGL 344	Psycholinguistics	3
ENGL 450	Lexicography	3
LITE 345	Linguistics and the Study	
	of Literature	3
LITE 354	Contemporary Poetry	3

## BACHELOR OF ARTS (BA) IN LITERATURE IN ENGLISH

This concentration will lead to a B.A. degree in Literature. It is recommended for students interested in creative arts. Those wishing to become writers, publishers, literary critics, editors, performing artistes, teachers, advertisers, and those intending to do postgraduate work in literature will benefit from the following courses:

#### **SUMMARY**

General Education Requirements	47 - 49
Core Requirements	44
Concentration	45
Elective Courses	3

Total 140 - 142 Credits

### LITERATURE SPECIALIZATION 45 Credits

LITE 152	Literary Language And	
	Scholarly Presentation	3
LITE 220	Oral Literature	3
LITE 252	English Literature I	3
LITE 253	English Literature II	3
LITE 257	European Literature	3
LITE 260	Children's Literature	3
LITE 264	Theatre Arts	3
LITE 353	African Drama	3
LITE 354	Contemporary Poetry	3
LITE 363	The African Novel	3
LITE 364	Women Writers	3
LITE 452	Major Literary Period	3
LITE 454	African-American Literature	3
LITE 456	Caribbean Literature	3
LITE 462	Masters Of American Literature	3

ELECTIVE COURSES 3 Cr			lits
ENGL 410		The Autobiography	3
ENGL 435		Editing Skills	3
ENGL 447		Translation and Interpretation	3
LITE 267		Introduction to Film Studies	3
LITE 455		Theory, Fieldwork and	
		Research Skills In Oral Literature	3

MINOR IN LITERATURE 33 Credit				
	LITE 156		East African Prose Fiction	3
	LITE 157		East African Drama And Poetry	3
	LITE 220		Oral Literature	3
	LITE 257		European Literature	3
	LITE 264		Theatre Arts	3
	LITE 352		Theories of Literature and Stylistics	3
	LITE 353		African Drama	3
	LITE 363		The African Novel	3
	LITE 451		Major Author	3
	LITE 452		Major Literary Period	3
	LITE 465		Creative Writing	3

### **BACHELOR OF ARTS (BA) IN KISWAHILI**

#### **SUMMARY**

General Education Courses	47 - 49
Core Courses	66
Elective Courses	6
Minor	25

Total 144-146 Credits

#### **CORE COURSES**

#### 66 Credits

#### **LINGUISTICS COURSES**

KISW 110	Introduction to Linguistics	
	in Kiswahili	3
KISW 215	Phonetics and Kiswahili Phonology	3
KISW 220	Kiswahili Morphology	3
KISW 250	Theories of Syntax in Kiswahili	3
KISW 320	Sociolinguistics in Kiswahili	3

#### LITERATURE COURSES

KISW 109	Introduction to Kiswahili Literature	3
KISW 115	Kiswahili Poetry	3
KISW 230	Theory and Analysis	
	of Kiswahili Literature	3
KISW 280	Kiswahili Drama	3
KISW 360	Kiswahili Novel	3

#### LANGUAGE COURSES

LANGUAGE COURSES				
	KISW III		Historical and Modern	
			Development of Kiswahili	3
	KISW 210		Theory and Practice of	
			Translation and Interpretation I	3
	KISW 240		Theory and Practice of	
			Translation and Interpretation II	3
	KISW 260		Communication Skills in Kiswahili	3
	KISW 290		Textual and discourse	
			Analysis in Kiswahili	3
	KISW 300		Advanced Syntax in Kiswahili	3
	KISW 310		Stylistics in Kiswahili	3
	KISW 400		Kiswahili Research Methods	3
	KISW 410		Senior Seminar in Kiswahili	3
	KISW 415		Editing Skills in Kiswahili	3
	KISW 420		Semantics and Pragmatics	
			in Kiswahili	3

#### **ELECTIVE COURSES**

#### **6 Credits**

Students will select any two courses from either A or B in line with their area of specialization:

#### **LINGUISTICS COURSES**

KISW 440	Psycholinguistics in Kiswahili	3
KISW 455	Historical Comparative	
	Linguistics in Kiswahili	3

#### LITERATURE COURSES

KISW 270	Kiswahili Short Stories	3
KISW 330	Pre-20th Century Kiswahili Poetry	3
KISW 370	Comparative Literature	
	in Kiswahili	3
KISW 380	Theatre Arts in Kiswahili	3
KISW 430	Creative Writing in Kiswahili	3
KISW 350	Kiswahili Oral Literature	3

#### **MINOR IN KISWAHILI**

#### 35 Credits

### CORE COURSES 29 Credits

KISW 109	Introduction to Kiswahili Literature	3
KISW 110	Introduction to Linguistics	
	in Kiswahili	3
KISW III	Historical and Modern	
	Development of Kiswahili	3
KISW 210	Theory and Practice of	
	Translation and Interpretation I	3
KISW 215	Kiswahili Phonetics and Phonology	3
KISW 220	Kiswahili Morphology	3
KISW 230	Theory and Analysis	
	of Kiswahili Literature	3
KISW 250	Theories of Syntax in Kiswahili	3
KISW 260	Communication Skills in Kiswahili	3
KISW 270	Kiswahili Short Stories	3
KISW 280	Kiswahili Drama	3
KISW 415	Editing Skills in Kiswahili	3
KISW 430	Creative Writing in Kiswahili	3

ELECTIVE C	OU	IRSES 6 Cred	its
KISW III		Kiswahili Poetry	3
KISW 240		Theory and Practice of	
		Translation and Interpretation II	3
KISW 290		Textual and Discourse	
		Analysis of Kiswahili	3
KISW 350		Kiswahili Oral Literature	3
KISW 370		Comparative Literature in Kiswahili	3
KISW 380		Theatre Arts in Kiswahili	3
KISW 440		Psycholinguistics in Kiswahili	3
KISW 455		Historical Comparative	
		Linguistics in Kiswahili	3
KISW 420		Semantics and Pragmatics	
		in Kiswahili	3

## **BACHELOR OF ARTS (BA) IN FRENCH**

#### **SUMMARY**

General Education Courses	47 - 49
Core Courses	59
Elective Courses	9
Minor	25
Total	150 - 152 Credits

**GENERAL EDUCATION COURSES** 47-49 Credits

(See Gen. Education section for details).

#### **CORE COURSES 59 Credits**

JOILE GOO	 	4165
FREN 104	Introduction to French Language	3
FREN III	The French Language	
	and Grammar	3
FREN 114	French grammar and usage	3
FREN 130	Oral Expression and	
	Aural Comprehension	3
FREN 140	History and Modern Trends	
	of the French Language	3
FREN 210	Introduction to General	
	Linguistics in French	3
FREN 220	French Phonetics and Phonology	3
FREN 225	Introduction to French Literature	
	and Literary Analysis	3
FREN 230	Panorama of Francophone	
	Literature	3
FREN 310	French Oral Literature	3

FREN 315	French For General, Academic	3
	and Professional Purposes	
FREN 320	French Semantics and Lexicology	3
FREN 324	French Morphology and Syntax	3
FREN 415	Socio-Linguistics in French	3
FREN 420	Introduction to Translation and	
	Interpretation	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	5

ELECTIVE C	OL	JRSES 9 Cred	lits
FREN 240		The French African Novel and	
		Short Stories	3
FREN 330		Culture and Civilization of the	
		French-speaking Community	3
FREN 335		CarribeanLiterature	3
FREN 340		Textual Analysis 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 450		French Poetry	3

MINOR IN FRENCH 42 Cred			
CORE COURSES 36 Cred			
FREN 104	Introduction To French Language	3	
FREN III	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 220	French phonetics and Phonology	3	
FREN 230	Panorama of Francophone		
	Literature	3	
FREN 310	French Oral Literature	3	
FREN 320	French Semantics and Lexicology	3	
FREN 324	French Morphology and Syntax	3	
FREN 420	Introduction to Translation and		
	Interpretation	3	
FREN 434	Academic Research: Basic		
	Principles and Methods	3	

<b>ELECTIVE C</b>	OURSES 6 Cre	dits
FREN 240	The French African Novel and	
	Short Stories	3
FREN 140	History and Modern Trends of	
	the French Language	3
FREN 330	Culture and Civilization of the	
	French-speaking Community	3
FREN 340	Textual Analysis in French	3
FREN 430	French for the Hotel, Tourism	
	and Travel Industries	3
FREN 440	French for Management and	
	Administration	3

#### **COURSE DESCRIPTIONS**

## ENGL 001 English as a Foreign Language (10 hours) 0 Credit

This is a basic English course designed to meet the needs of learners who come from an educational background where English is not the medium of instruction. The course is designed to give learners a solid foundation to enable them start their education in English. The course takes a practical approach to provide basic skills in listening and speaking, pronounciation, reading and vocabulary buliding, writing, and grammar and usage. The course will run for one trimester and there will be five lectures weekly consisting of two contact hours a day. Student will also spend time in the language laboratory to practice skills acquired in class. A certificate for English as a foreign language will be issued to successful candidates at the end of the course.

## ENGL 109 Basic Writing Skills I (2 hours) 0 Credits

This course is designed for students who lack an adequate English background to enable them to derive maximum benefit from attending regular lectures. It provides opportunities for such students to exercise their abilities in listening, reading, writing, and promoting vocabulary growth in English. There are two lectures each week. **Prerequisite: English Placement Test.** 

## ENGL 110 Basic Writing Skills II (2) 0 Credits

This course is designed to meet the needs of students who, according to their English Placement Test score, need supplementary help with composition, grammar, usage, and spelling before taking ENGL III, Introduction to Writing Skills I. There are two lectures each week. *Prerequisite: English placement Test or ENGL 109.* 

## ENGL I I I Introduction to Writing Skills I 2 Credits

This course continues the development of writing skills as they pertain to use of current Standard English. This is the first part of a two-quarter sequence in writing. The course provides students with practice in language use through class discussions and essay-writing tasks. A considerable amount of time will also be devoted to grammar, vocabulary growth, spelling, and mechanics. *Prerequisite: English placement Test or Certificate of Completion of Pre-University.* 

## ENGL 112 Introduction to Writing Skills II 2 Credits

This course continues the development of writing skills. It focuses on academic and functional writing. Academic writing will focus on writing a research paper while the functional writing will focus on the writing of detailed curriculum vitae or résumé and an application letter. Some of the topics to be covered include introduction to CV writing, electronic and online CV, Writing an application letter, steps involved in writing a research paper, library skills, formulating a thesis statement, writing bibliography cards, taking notes, drafting a research paper, systems of documentation such as MLA, APA, CMS; editing and proofreading. *Prerequisites: ENGL 111 and OFTE 120 or INSY 106 or INSY 118*.

## ENGL 113 Speech Communication 2 Credits

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 140** The Art of writing 3 Credits

This course deals with the essentials of continuous prose writing. Special attention is given to functional and situational varieties of discourse e.g. writing different types of essays, summaries, book reviews, articles for mass media, memos etc. Skills such as paragraph development, punctuation, drafting and proofreading will be examined.

# ENGL 141 Introduction to the Study of Language 3 Credits

Learners are introduced to concepts such as theories of origin of language, language families and classification of languages, design features of language as a communication system, spoken VS written language, language and ethnicity, language and thought, phonology, morphology, syntax, semantics etc., communicative competence, differences between speech and animal communication, and the relation of linguistics/language and other disciplines.

## ENGL 142 Phonetics and Phonology 3 Credits

The course focuses on articulatory phonetics and the technical terminology required for the description and classification of speech sound symbols; manner and point of articulation, and parameters used in sound description are covered. The International Phonetic Alphabet (IPA) and sound transcription are emphasized. Sound systems of language, phonological rules and processes are examined. **Prerequisite: ENGL 141.** 

## ENGL 144 Introduction to English Grammar 3 Credits

This course takes a semantic approach to the study of grammar. It deals with semantic types associated with grammatical classes such as the noun, adjective and the verb. Vocabulary under each semantic type is explored, and common meaning components in each class are studied. Various verb categories such as primary A, B, C etc and their semantic roles and complements are covered. **Prerequisite: ENGL 141** 

## ENGL 145 English Grammar

and Usage 3 Credits

This course handles selected topics in grammar such as tense, aspect and modality; adverb and adverbial phrases; coordination and apposition, mood, emotion and attitude; direct and indirect speech, conditionals and concord. **Prerequisite: ENGL 144.** 

## LITE 151 Introduction to Literary Appreciation 2 Credits

This course provides practice in reading, analyzing, and interpreting different genres of literature. Learners are exposed to different works by renowned authors. The works include plays, novels, and poetry. The course includes an introduction to some of the specialized vocabulary in literary studies.

## LITE 152 Literary Language and Scholarly Presentation 3 Credits

The course is designed to develop skills in reading and writing literary research papers, documented articles, and critical essays. It involves an analysis and interpretation of prose, poetry, and drama by addressing specific elements such as setting, plot, characterization, theme, style, etc.

#### LITE 267 Introduction to Film Studies 2 Credits

Students will investigate how and what ideas, values and concepts are connected through film. In analyzing film, students will examine elements of plot, setting, style and point of view. Class activities include viewing, listening, researching and analyzing film. **Prerequisite LITE 151.** 

## LITE 156 East African Prose Fiction 3 Credits

The course looks at the literary output of the East African region. The novels and the short stories from this region will be examined with the view to explicate the dominant and recurring trends in terms of thematic concerns and literary technique. Students are expected to identify the influence of the East African colonial, political and socio-economic experience on literary creativity. **Prerequisite: LITE 151** 

## LITE 157 East African Drama

and Poetry 3 Credits

The course examines poetic and dramatic works from East Africa. Selected poems are examined for their thematic concerns and literary technique. Published plays by dramatists such as John Ruganda, NgugiwaThiong'o, Hussein, Imbugaetc are studied alongside those of nascent playwrights. The works of poets such as P'Bitek, Rubadiri, Micere Mugo, Barlow, Ntiru, Angira among others are studied. **Prerequisite: LITE 151.** 

#### LITE 220 Oral Literature 3 Credits

The course concentrates on unwritten literature that is realized through performance. The similarities and differences between oral and written literature are highlighted alongside the genres of oral literature. Emerging forms and the effect of modern technology on this form of literature also form part of this course. The influence of oral literature on written literature is also examined. **Prerequisite: LITE 151.** 

#### ENGL 241 Morphology 3 Credits

Learners are introduced to the following topics: word and its functions, definitions of word, and word formation processes. The notions of morph, morpheme free and bound morphemes, allomorphs, inflectional and derivational morphology, word classes, classification of languages according to their morphological types are also covered. **Prerequisite: ENGL 142.** 

## **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. **Prerequisite: ENGL 141.** 

## LITE 252 English Literature I 3 Credits

This course is a survey of English literature from Beowulf through the renaissance, the restoration and the romantic periods. It employs a variety of critical perspectives to explore the poetry, prose and drama of such influential figures as Chaucer, Shakespeare, Donne, Milton, Dryden, Pope, Swift, Blake, Wordsworth, Coleridge, Shelley, and Keats. **Prerequisite: LITE 151.** 

#### LITE 253 English Literature II 2 Credits

This course gives prominence to the poetry and fiction of the Victorian Period plus the Modern period. Some of the principal poets treated are Tennyson, Browning and Hopkins. **Prerequisite: LITE 252.** 

#### LITE 257 European Literature 3 Credits

This course examines main trends in the writing of European prose fiction, drama, and poetry. Students analyse philosophical, historical, and cultural forces that influence the writing. Selected works by various poets, novelists and playwrights are studied. **Prerequisite: LITE 151.** 

#### LITE 260 Children's Literature 3 Credit

The course covers literature that is basically meant for children. A broad range of genres and examples of children literature in different media are taken up. Different theories on children literature are looked at in an effort to understand the needs of the child in relation to literature. **Prerequisite: LITE 151.** 

#### LITE 264 Theatre Arts 3 Credits

Students in this course are exposed to theatre as a performing art. Concepts such as Theatre for Development and Theatre in Education are covered. 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. **Prerequisite: LITE 151.** 

# ENGL 341 Trends in the Development of English Language 3 Credits

This course is an enquiry into the origins, development, and spread of the English language. It looks at the major periods of English development namely Old English, Middle English and Modern English. Major topics to be examined will include source and nature of English vocabulary, discrepancy between spelling and pronunciation, the spread of English to the world, varieties of English such as British, American, Canadian, West African, Australian and New Zealand. Other topics will include English as an international language, English as a global language, the future of English and Standard English.

#### **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. **Prerequisite: ENGL 244** 

### **ENGL 344** Psycholinguistics 3 Credits

The course focuses on biological foundations of language and the brain mechanisms underlying its acquisition and use. The scope of the subject includes the emergence of psycholinguistics as a distinct discipline, the brain and cognition, the relationship between language, the brain and conceptualization, the processing of linguistic data in the brain, factors affecting language development and some aspects of language malfunction e.g. aphasia, memory lapses, lisping, stuttering, dyslexia etc. **Prerequisite: ENGL141.** 

## LITE 345 Linguistics and the Study of Literature 3 Credits

The course focuses on how literary artists exploit the various aspects of linguistics: phonology, morphology, syntax, semantics, and pragmatics to create works of literature. This is in cognizance of the fact that literature is actually language in use, and that language itself is enriched through the study of literature. The relationship between linguistics and the literary experience is examined. The course prepares students for the study of stylistics. **Prerequisites: ENGL 141 and LITE 151.** 

# ENGL 346 English for Specific Purposes 3 Credits

This course examines language for special purposes. It is divided 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** Language Acquisition 3 Credits

Focus in this course is on: What factors affect acquisition of first and second language? What stages does one go through in acquisition of language? What are the theoretical approaches/explanations for the acquisition of both first and second languages. Is there biological support for some theories? Which disorders inhibit language acquisition in children e.g. autism, aphasia, congenital problems? There is a field trip to selected schools such as Jerusalem Primary school (Eldoret) or Rainbow School (Lower Kabete, Nairobi). Does the 1st language influence the acquisition of the second language? **Prerequisite: ENGL 344.** 

### ENGL 349 Syntax 3 Credits

This course covers constituency in grammar, Phrase structure, grammatical functions and processes. It also covers approaches to syntactic analysis: Immediate Constituent Analysis (ICA), Phrase Structure Grammar (PSG), and Transformational Generative (TGG) with emphasis on the Standard Theory. It examines transformational operations and rules. The course also introduces Government and Binding theory with its subsystems.

Prerequisite: ENGL 145.

# LITE 352 Theories of Literature and Stylistics 3 Credits

This course explores the nature and function of literature as a cultural institution through a study of various schools of literary theory and criticism: Classical, Romantic, Realist, Marxist, Freudian, Existentialist, Structuralist, Deconstructionist, etc. The practical application of theories and stylistics is done through textual analysis. **Prerequisite: LITE 345.** 

#### LITE 353 African Drama 3 Credits

This course explores the theory and practice of African Drama, tracing its origins and elements. There is a critical analysis of published texts by renowned African playwrights such as Ola Rotimi, Soyinka, Fugard, Imbuga, Ruganda, Sekyi, Rugyendo, Femi Osofisan, Ama Ata Aidoo alongside upcoming ones. The relationship between drama and oral traditions is also examined.

Prerequisite: LITE 157.

#### **LITE 354 Contemporary Poetry 3 Credits**

This course explores the use of the English language in poetry. It covers poetry that spans the twentieth century to the present and includes poetry as social comment, expression of emotion, personal experience, the relationship between poetry and nature, narrative verse, and concrete poetry. Specifically, the work of poets of repute from different regions will be sampled. Prerequisite: LITE 151.

#### **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 asthe 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, principles of writing effective messages. Prerequisites: ENGL III and ENGL 140.

#### **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. Prerequisites: LITE 156 and LITE 352.

#### **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.

#### **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.

## Prerequisites: ENGL 342 and ENGL 344.

#### **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.

## Prerequisites: ENGL 140 and ENGL 145.

#### **ENGL 441** Semantics and **Pragmatics** 3 Credits

This coursesurveys semantic topics like sense and reference; distinction between utterances and propositions, lexica semantics, sense relations, vagueness and ambiguity; semantics and grammar. It also covers the main areas of linguistic pragmatics such as the role of context in interaction and such phenomena as speech acts, presuppositions, conversational implicature. Deixis and different theories within semantics and pragmatics. Prerequisites: ENGL 241 and ENGL 349.

#### 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. **Prerequisite: ENGL 342.** 

## 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. 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 audiovisual 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 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 analyzing 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.

#### 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. **Prerequisite LITE 151.** 

## LITE 452 Major Literary Period 3 Credits

The course is a study of a major period of English or American literature. It is a survey of the spirit of the period, age, or movement. It is a perceptive and integrated analysis of the forces that shaped the creative expressions of the era such as: politics, social groupings, intellectual achievements, spiritual conditions, etc. The literary styles and accomplishments of the period will also be discussed. **Prerequisite: LITE 352.** 

## 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 454 African-American Literature 3 Credits

This course focuses on major essayists, biographers, poets, novelists, dramatists, and short story writers who have made significant contributions to African-American literature and are associated with major historical, ideological, cultural, and literary movements such as the Harlem Renaissance. **Prerequisite:**LITE 151.

# LITE 455 Theory, Fieldwork and Research Skills in Oral Literature 3 Credits

The course equips the learner with methodological skills for the study of oral literature by examining the existing theories in the discipline. 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. **Prerequisites: LITE 220 and LITE 352.** 

### LITE 456 Caribbean Literature 3 Credits

The course examines prose fiction, drama and poetry from the Caribbean. Fiction Writers, playwrights and poets will be examined in as far as they reflect the historical transformation and the development of cultures in this region from the days of slavery to the modern times in their works.

## LITE 462 Masters of American Literature 3 Credits

This course traces the development of American literature from the 19th century to the modern 20th century and its influence on the world's literature. The course is designed to study not all of America's writers, but primarily the major contributors including Thoreau, Emerson, Hawthorne, Whitman, Frost, Hemingway, and Richard Wright.

### LITE 465 Creative Writing 3 Credits

This course looks at theory and practice in writing stories, essays, poetry, or drama. While the course emphasis changes from trimester to trimester, students are guided in developing articlessuitable for publication. Emphasis will be given to accuracy, coherence, neatness, and literary style. Students will submit supervised creative work for examination. **Prerequisite: LITE 151.** 

#### **ENGL 470** Research Project I 3 Credits

The first part of this course will deal with general issues in linguistics, language and literature research. Students will be assisted to write a research proposal, which should be presented and orally defended by the end of the trimester. The course will focus on the essential components of a research proposal. The students will be exposed to the techniques of oral proposal defence. **Prerequisite: ENGL 112.** 

### **ENGL 471** Research Project II 2 Credits

This second part of the course will guide the student to write a research project. The focus of the course will be to guide the student on how to write the main sections of the research project namely the introduction, the review of literature, the research methodology, the results and discussion, the conclusion and recommendations. Other topics will include methods of data processing, interpretation and presentation of evidence, test of hypotheses, review and evaluation of the project. In addition, some topics dealing with the mechanics of writing a research report will be examined. These topics will mainly focus on standard presentation, guidelines for clear writing, grammar usage, document citations, proofreading, how to revise and edit the final draft, writing the report etc. By the end of the second quarter, the student, guided by a supervisor approved by the department, will write a major paper between 10,000 and 12,000 words. Prerequisite: ENGL 470.

#### COURSE DESCRIPTIONS FOR KISWAHILI

#### KISW 102 Beginning Kiswahili 0 Credit

This course provides basic foundations in Kiswahili training in vocabulary, grammar, spelling, speaking, reading, writing and understanding written as well as spoken text. There are two lectures each week. *Prerequisite: Kiswahili placement test results.* 

#### KISW 103 Introduction to Kiswahili 0 Credit

This course introduces students to Kiswahili language, vocabulary and grammar. Topics: composition writing, punctuation, and comprehension. There are 2 lectures each week. **Prerequisite: KISW 102 or direct placement as per the Kiswahili placement test results.** 

## KISW 104 Language Use 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 minutesof a meeting, book reviews and critiques, editing skills, composition, summary and essay. *Prerequisite: Kiswahili placement test results, or a passing grade in KISW 103.* 

## KISW 109 Introduction to Kiswahili Literature 3 Credits

This course introduces the learner to meaning, scope and genres of Kiswahili literature. Topics include genres, plot, conflict, narration, characterization, and stylisticdevices. 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 110 Introduction to Linguistics in Kiswahili 3 Credits

This course is designed for Kiswahili students; it examines theories of the origin of human language and typology. Studentsare introduced to linguistic concepts, both prescriptive and descriptive, as well as the different levels of language: phonology, morphology, syntaxand semantics, sociolinguistic, psycholinguistics, applied linguistics and stylistics. Other topics include: role of linguistics in neighboring disciplines, applications to practical fieldssuch as lexicography, orthography, translation, and language planning, etc.

# KISW III Historical and Modern Development of Kiswahili 3 credits

This course traces the History of Kiswahili Language from precolonial, colonial, present and future development of Kiswahili as a Bantu Language. Topic: Language standardization and policies in E. 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 115 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 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 215 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, articulatory, 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 220 Kiswahili Morphology 3 Credits

This course deals with Kiswahili morphemes, word structure, word forms as well as the processes involved in their realization. Topics: morphophonemic changes, concepts of morph, morpheme and allomorph, affixation and its role in Kiswahili, word formation techniques: clipping, compounding, borrowing and derivation etc. Various parts of speech and classification of nouns morphologically, syntactically and semantically will be analyzed. *Prerequisite: KISW 110*.

## KISW 230 Theory and Analysis of Kiswahili Literature 3 Credits

This course introduces the theory 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 and feminism; laws of plot, conflicts, setting, narration, theme, figurative language, prosody, symbolism, and movements and style in oral and written literature.

# 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 anart 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 250 Theories of Syntax in Kiswahili 3 Credits

This course is designed to provide students with the major linguistic theories of syntax. The following syntactic theories, among others, will be discussed: traditional grammar, structuralism, transformational generative grammar, phrase structure grammar, structural grammar, dependency grammar, government and binding, systemic as well as stratification grammar. **Prerequisite: KISW 220.** 

#### KISW 260 Communication Skills in Kiswahili 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, 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 109.** 

#### KISW 280 Kiswahili Drama 3 Credits

The course focuses on the analysis of written drama in Kiswahili as well as translated drama from foreign languagesinto Kiswahili. Topics: correlation between other genres as well as the history and development of Kiswahili drama, categories ofdrama, its characterization, language, plot and style. Works of various authors willalso be analyzed. **Prerequisite: KISW 109.** 

#### **KISW 290 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 inanalyzing texts; conversational exchanges, exchange structure as well as language use in social contexts. Prerequisite: All Courses below KISW 300.

#### **KISW 300 Advanced Syntax** in Kiswahili 3 Credits

This course intensively examines the syntactic structure of the Kiswahili sentence by exploring the following topics: words, groups, clauses, phrases, and word order. Also discussed are sentence types: simple, compound and complex. The following sub-topics will also be discussed: statement, interrogative, imperative and negation; rhyme and theme; markers of paratactic and hypotactic structures, embedment, concordance, representing the Kiswahili sentence by using tree diagrams. Prerequisite: KISW 250.

#### **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. Prerequisites: KISW 230, KISW 260 and KISW 300.

#### **KISW 320 Sociolinguistics** in Kiswahili

3 Credits

The course defines the concepts and scope of sociolinguistics, macro linguistics and micro linguistics. Topics: language variations, monolingualism, 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 impactof standardization, language and education, and current language planning policy in Kenya. Prerequisite: KISW 220.

#### **KISW 330 Pre- 20th Century Kiswahili Poetry** 3 Credits

This course traces the origin, development and the historical perspective of Kiswahili poetry. Topics: earlier writings of Kiswahili poetry; the Tenzi literature of renowned epics such as Fumo Liyongo, Rasil Ghul, Tambuka, Muyaka, and Nassir etc. are analyzed thematically and stylistically. Students taking this course may participate in an academic field trip to Mombasa.

#### **KISW 350** Kiswahili Oral Literature 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, ceremoniesand initiations. The theoretical and methodology problems of oral literature as well as the research methods employed in its study are emphasized. Prerequisite: KISW 230.

#### **KISW 360** Kiswahili Novel 3 Credits

The course is an in-depth study of the theory, origin and development of the Kiswahili novel as a literary genre. Topics: the transition from oral literature to prose; the influence of oral literature on written novels, and literary movements. Emphasis is placed onsuch authors as S. A. Mohamed, Mohamed S. Mohamed, Shafi Adam Shafi, Katama Mkangi, Rocha Chimerah, John Habwe, among others. Prerequisite: KISW 230.

## KISW 370 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, Chimerah, Kitsao, Kezilahabi, Mazrui, and S. A. Mohamed. *Prerequisites: KISW 230, KISW 310, KISW 350 and KISW 340.* 

## KISW 380 Theatre Arts in Kiswahili

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 280.** 

3 Credits

## KISW 400 Kiswahili Research Methods 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 400.** 

## 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. **Prerequisite: KISW 400.** 

#### 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 300.** 

## 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 300.** 

## 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 380.** 

## 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, neurolinguistics, the brain, the abstract language system-competence and performance, language production; context, variation functions, and errors e.g. slips of the tongue, ear, 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: historyand development of comparative historical linguistics, predecessors andearly discoveries, the comparative method (glottochronology), lexicostatistics, language classification, reconstruction and etymology, diachronic and synchrony, origin andspread of Kiswahili dialects.

### **COURSE DESCRIPTIONS FOR FRENCH**

#### FREN 102 Beginning French I 0 Credit

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. There are two lectures each week.

## FREN 103 Beginning French II 3 Credits

This course is designed for students who have successfully completed FREN 001 or did two years of French at High School. Emphasis is placed on basic grammar, vocabulary and continuation of the four basic language skills. *Prerequisite: FREN 102 or one year of French at High School.* 

## FREN 104 Introduction to French Language 3 Credits

This course is a continuation of FREN 100, with emphasis on conversation, listening, reading and writing. The course is for students who have successfully completed FREN 001 and FREN 100 with a grade of C+ or better or those who have done two or more years of High school French with a grade of C+ or better. **Prerequisite: FREN 103.** 

## FREN III The French Language and Grammar 3 Credits

This course is designed for students who have background knowledge in French. Emphasis is placed on the following: fundamentals of grammar with elements of conversation, comprehension and conversational skills.

## 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 'Françaisfondamental' 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 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 subdivisions, levels of linguistic analysis, the speech community, language and dialect, bilingualism and multilingualism, standard French language, Pidgins and Creoles.

## FREN 220 French Phonetics and Phonology 3Credits

In this course, the student learns about the production and classification of French sounds, phonetic transcriptions, suprasegmental 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 Carribeans, 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 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, polygymy, 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 324 French 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 clefting. 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 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 Carribean francophone world. This course gives insight into the societal structures and organizations, art forms, socoilinguistic setups, material culture, social administrative institutions, using written, audio and audio-visual materials.

#### 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, Cesaire, Damas and Niger.

## 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 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 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 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. Nineteeth 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.

#### 3 Credits **FREN 445** French Drama

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 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

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.

3 Credits

#### **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 guarter 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** 5 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, 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 trimester.

#### **DEPARTMENT OF MUSIC**

#### **FACULTY**

Yonathan, A. -(Chairperson) Nyaben, E. Oyiengo, J.

#### **PHILOSOPHY**

The music department views God as the creator and aspirator of music, thus all musical experience must be redemptive and conforming to Biblical principles. Music should expand the intellectual abilities, encourage the development of sound character, draw men closer to the image of their Creator and promotes wellness of physical and mental aspect of the whole being, making men to be a good citizen at present and the future. Therefore being equipped with excellent knowledge and skills, men will be of useful service to God and humanity.

#### **MISSION**

The music department endeavors to educate and nurture students through the providence of excellent and informed Christian music education experience, knowledge and skills for music educators, performers, and other related professional careers.

#### **VISION**

The department envisions being the center of learning, providing the best Christian education for music educators and performers, thus it becomes the center of influence in providing quality music to the community.

#### **EXPECTED LEARNING OUTCOMES**

By the end of the degree programme 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 programmes, 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.

## DEGREES AND DIPLOMAS OFFERED BY THE DEPARTMENT

- 1. Bachelor of Arts in Music Performance
- 2. Bachelor of Music in Music Education
- 3. Minor in Music

18 Credits

#### CAREER OPPORTUNITIES

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**

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

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.

## REQUIREMENTS FOR GRADUATION

- I. An overall cumulative GPA of 2.50.
- 2. 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.
- 3. A minimum of 150 credits for Bachelor of Arts in Music Performance, and a minimum of 154 credits for Bachelor of Music in Music Education.

# BACHELOR OF ARTS IN MUSIC PERFORMANCE CONCENTRATION IN PIANO/VOICE/TRUMPET/ FLUTE

This concentration will lead to a B.A. degree in music performance. It is recommended for students who are interested to specialize in a particular applied instrument. This degree also includes liberal arts and sciences.

#### **SUMMARY**

General Education Courses	48
Specialization Courses	18
Core Courses	66
Cognate Courses	12
Elective Courses	6
Total	150 Credit

**Note:** Music majors and minors are exempted from GCAS 207 Music Appreciation.

## GENERAL EDUCATION COURSES 48 Credits

SPECIALIZATION COURSES

Any of the following instruments

PIANO	18 Cr	edits
MUPF 070	Piano Beginner I (1 credit)	0
MUPF 071	Piano Beginner II (1 credit)	0
MUPF I I O	Piano Concentration I	2
MUPF III	Piano Concentration II	2
MUPF 210	Piano Concentration III	2
MUPF 211	Piano Concentration IV	2
MUPF 310	Piano Concentration V	2
MUPF 311	Piano Concentration VI	2
MUPF 319	Piano Recital I	- 1
MUPF 410	Piano Concentration VII	2
MUPF 411	Piano Concentration VIII	2
MUPF 419	Piano Recital II	1

VOICE	18 Cr	edits	CORE COURS	ES	66 Credits
MUPF 072	Voice Beginner I (Taredit)	0	APPLIED MUS	SIC PERFORMANCE	8 Credits
MUPF 073	Voice Beginner II (1 credit)	0		wing instruments 6 Credits	
MUPF 120	Voice Concentration I	2	Arry of the folio	wing instruments of Credits	
MUPF 121	Voice Concentration II	2	PIANO *		6 Credits
MUPF 220	Voice Concentration III	2	MUPF 070	Piano Beginner I (1 credit)	0
MUPF 221	Voice Concentration IV	2	MUPF 07 I	Piano Beginner II (1 credit)	0
MUPF 320	Voice Concentration V	2	MUPF 112	Piano Minor I	1
MUPF 321	Voice Concentration VI	2	MUPF 113	Piano Minor II	1
MUPF 329	Voice Recital I	1	MUPF 212	Piano Minor III	1
MUPF 420	Voice Concentration VI	2	MUPF 213	Piano Minor IV	1
MUPF 421	Voice Concentration VIII	2	MUPF 312	Piano Minor V	1
MUPF 429	Voice Recital II		MUPF 313	Piano Minor VI	
TRUMPET	18 Cr	edits	*Compulsory for	or students taking concentratio	n area other than
MUPF 074	Trumpet Beginner I (1 credit)	0	piano		
MUPF 075	Trumpet Beginner II (1 credit)	0	VOICE		6 Credits
MUPF 130	Trumpet Concentration I	2	MUPF 072	Voice Beginner I ( I credit)	0 Credits
MUPF 131	Trumpet Concentration II	2	MUPF 073	Voice Beginner II (1 credit)	0
MUPF 230	Trumpet Concentration III	2	MUPF 122	Voice Minor I	
MUPF 231	Trumpet Concentration IV	2	MUPF 123	Voice Minor II	
MUPF 330	Trumpet Concentration V	2	MUPF 222	Voice Minor III	
MUPF 331	Trumpet Concentration VI	2	MUPF 223	Voice Minor IV	
MUPF 339	Trumpet Recital I	1	MUPF 322	Voice Minor V	
MUPF 430	Trumpet Concentration VII	2	MUPF 323	Voice Minor VI	
MUPF 43 I	Trumpet Concentration VIII	2	11011 323	Voice I IIIIOI VI	
MUPF 439	Trumpet Recital II	1	TRUMPET		6 Credits
CLUTE	18 Cr	- 4:4-	MUPF 074	Trumpet Beginner I (1 credit	c) O
FLUTE MUPF 076			MUPF 075	Trumpet Beginner II (1 credi	t) 0
MUPF 076	Flute Beginner I (I credit)	0	MUPF 132	Trumpet Minor I	1
MUPF 140	Flute Beginner II (1 credit) Flute Concentration I	0 2	MUPF 133	Trumpet Minor II	1
MUPF 141		2	MUPF 232	Trumpet Minor III	1
MUPF 240	Flute Concentration II	2	MUPF 233	Trumpet Minor IV	1
MUPF 241	Flute Concentration III		MUPF 332	Trumpet Minor V	1
MUPF 340	Flute Concentration IV	2 2	MUPF 333	Trumpet Minor VI	1
	Flute Concentration V		CLUTE		6 Cuadita
MUPF 341 MUPF 349	Flute Concentration VI Flute Recital I	2	FLUTE MUPF 076		6 Credits
MUPF 440	Flute Recital I  Flute Concentration VII	1	MUPF 076	Flute Beginner I (1 credit)	0
MUPF 441		2 2	MUPF 142	Flute Beginner II ( I credit) Flute Minor I	0
	Flute Concentration VIII		MUPF 142	Flute Minor I	
MUPF 449	Flute Recital II		MUPF 242	Flute Minor II	
			MUPF 242		
			110PF 243	Flute Minor IV	

MUPF 342	Flute Minor V		AFRICAN MU	ISIC 8 Cro	edits
MUPF 343	Flute Minor VI	- 1	MUTH 206	African Music	
SAXOPHONE	6 Cre	dita		Theory and Practice I	2
MUPF 078	Saxophone Beginner I (1 credit)	0	MUTH 207	African Music	
MUPF 079	Saxophone Beginner II (1 credit)	0		Theory and Practice II	2
MUPF 152	Saxophone Minor I	ı	MUTH 306	African Music	
MUPF 153	Saxophone Minor II	i		Theory and Practice III	4
MUPF 252	Saxophone Minor III	i	CONDUCTIN	IG 4 Cro	edits
MUPF 253	Saxophone Minor IV	i	MUCO 217	Fundamentals of Conducting	2
MUPF 352	Saxophone Minor V		MUCO 218	Choral Conducting I	2
MUPF 353	Saxophone Minor VI	1			
	•		CHURCH MU	SIC 4 Cre Church Music I	
	THE FOLLOWING 2 Cre	dits	MUCH 124	Church Music I  Church Music II	2 2
MUPF 114	Applied Music - Brass	!	MUCH 224	Church Music II	2
MUPF 115	Applied Music – Woodwind		MUSIC EDUC	CATION 6 Cr	edits
MUPF 116	Applied Music – Guitar		MUED 103	Introduction to Music Education	2
MUPF 117	Applied Music – Strings	ı	<b>MUED 406</b>	Research Methods in Music	2
<b>MUSIC THEOF</b>	<b>RY</b> 25 Cr	edits	(Any of the following	owing)	
MUTH 100	Fundamentals of Music	3	MUED 316	Piano Pedagogy	2
MUTH 101	Music Theory I	2	<b>MUED 326</b>	Vocal Pedagogy	2
MUTH 102	Music Theory II	2	MUED 336	Trumpet Pedagogy	2
MUTH 200	Music Theory III	2	MUED 346	Flute Pedagogy	2
MUTH 201	Music Theory IV	2	MUSIC ENSE	MBLES 3 Cro	adite
MUTH 202	Music Theory V	2	MUPF 235	University Choral I	
MUTH 300	Music Theory VI	2	MUPF 236	University Choral II	l i
MUTH 301	Music Theory VII	2	MUPF 346	Instrumental Ensemble I	l i
MUTH 302	Music Theory VIII	2	MUPF 347	Instrumental Ensemble II	l i
MUTH 400	Forms and Analysis	2	11011 317	mod different Ensemble ii	
MUTH 401	Introductions to Counterpoint	2	COGNATE CO		redits
MUTH 402	Compositions and Arranging	2	EDPC 238	Psychology of Human	
<b>MUSIC HISTO</b>	RY 9 Cre	dits		Growth and Development	2
MUHL 270	Survey of Music History I	2	EDPC 302	Educational Psychology	3
MUHL 271	Survey of Music History II	2	EDTE 260	Curriculum Principles	
MUHL 370	Survey of Music History III	2	ENGL 453	Literary Studies of English Bible	3
MUHL 371	Survey of Music History IV	2	ENGL 465	Creative Writing	3
(Any of the follo	wing)		FREN 001	Beginning French I	0
MUHL 315	Piano Literature		ELECTIVE CO		edits
MUHL 325	Vocal Literature		MUCO 219	Choir Training for Young Singers	2
MUHL 335	Trumpet Literature		MUED 203	Music Education Methodology	2
MUHL 345	Flute Literature	1	MUED 316	Piano Pedagogy	2
			MUED 326	Vocal Pedagogy	2

MUED 336	Trumpet Pedagogy	2
<b>MUED 346</b>	Flute Pedagogy	2
MUED 407	Independent Study in Music	2
MUHL 272	Introduction to Ethnomusicology	2
MUHL 315	Piano Literature	-1
MUHL 325	Vocal Literature	-1
MUHL 335	Trumpet Literature	-1
MUHL 345	Flute Literature	-1
MUPF 114	Applied Music – Brass	-1
MUPF 115	Applied Music – Woodwind	-1
MUPF 116	Applied Music – Guitar	-1
MUPF 117	Applied Music – Strings	-1
MUPF 226	Singer's Diction	-1
MUPF 314	Art of Accompaniment	2
MUTH 401	Orchestration	2

#### **BACHELOR OF ARTS IN MUSIC PERFORMANCE**

### **CONCENTRATION IN CHORAL CONDUCTING**

This concentration will lead to a B.A. degree in music performance. It is recommended for students who are interested to being professional choral conductors. This degree also includes liberal arts and sciences.

#### **SUMMARY**

General Education Courses	48
Specialization Courses	18
Core Courses	67
Cognate Courses	12
Elective Courses	6
Total	151 Credits

**Note:** Music majors & minors are exempted from GCAS 207.

# GENERAL EDUCATION COURSES 48 Credits SPECIALIZATION COURSES 18 credits

of Ecialization Cookses To city				uits
	MUCO 217		Fundamentals of Conducting	2
	MUCO 218		Choral Conducting I	2
	MUCO 317		Choral Conducting II	2
	MUCO 318		Choral Conducting III	2
	MUCO 417		Choral Conducting IV	2
	MUCO 210		Choir Training for Young Singers	2
	<b>MUCO 327</b>		Aural Training for Choral	
			Conductors	2
	MUPF 226		Singer's Diction	- 1

MUPF 356	Choral Ensemble	
MUPF 357	Conducting Performance I	- 1
MUPF 457	Conducting Performance II	- 1

CORE COURSES	67 Credits
APPLIED MUSIC PERFORMANCE	12 Credits

PIANO	6 Cre	dits
MUPF 070	Piano Beginner I (1 credit)	0
MUPF 07 I	Piano Beginner II (1 credit)	0
MUPF 112	Piano Minor I	- 1
MUPF 113	Piano Minor II	- 1
MUPF 212	Piano Minor III	- 1
MUPF 213	Piano Minor IV	- 1
MUPF 312	Piano Minor V	- 1
MUPF 313	Piano Minor VI	- 1

١	VOICE	6 Cre	edits
	MUPF 072	Voice Beginner I ( I credit)	0
	MUPF 073	Voice Beginner II (1 credit)	0
	MUPF 122	Voice Minor I	1
	MUPF 123	Voice Minor II	1
	MUPF 222	Voice Minor III	1
	MUPF 223	Voice Minor IV	1
	MUPF 322	Voice Minor V	
	MUPF 323	Voice Minor VI	1

MUSIC THE	OF	RY 25 Cro	edits
MUTH 100		Fundamentals of Music	3
MUTH 101		Music Theory I	2
MUTH 102		Music Theory II	2
MUTH 200		Music Theory III	2
MUTH 201		Music Theory IV	2
MUTH 202		Music Theory V	2
MUTH 300		Music Theory VI	2
MUTH 301		Music Theory VII	2
MUTH 302		Music Theory VIII	2
MUTH 400		Forms and Analysis	2
MUTH 401		Introductions to Counterpoint	2
MUTH 402		Compositions and Arranging	2

MOSIC HIS	ı	KI	y Cred	IITS
MUHL 270		Survey of Music History I		2
MUHL 271		Survey of Music History II		2

MUHL 370 MUHL 371	Survey of Music History III Survey of Music History IV	2 2	MUPF 116 Applied Music – Guitar MUPF 117 Applied Music – Strings	
MUHL 355	Choral Literature	1	MUPF 314 Art of Accompaniment	2
AFRICAN MU	SIC 8 Cre	dits	MUTH 401 Orchestration	2
MUTH 206	African Music Theory		BACHELOR OF MUSIC IN MUSIC EDU	
	and Practice I	2	This degree is intended for those who	
MUTH 207	African Music		professionally in various music teaching settin	•
MUTH 306	Theory and Practice II  African Music	2	and studio. Applied performance skill is also hi	
11011 306	Theory and Practice III	4	the teacher in performing their selected instru	iment.
CHURCH MU			SUMMARY	
MUCH 124	SIC 4 Cred	dits 2	General Education Requirements 48	
MUCH 224	Church Music II	2	Core Courses 88	
		Z	Cognates 13 Electives Courses 6	
MUSIC EDUC			Total 155 Cre	dits
MUED 103	Introduction to Music Education	2	Note: Music majors and minors are exem	
MUED 326 MUED 406	Vocal Pedagogy Research Methods in Music	2 2	207 Music Appreciation.	pica irom de b
		Z	• •	
MUSIC ENSE		dits	GENERAL EDUCATION COURSES	48 Credits
MUPF 235	University Choral I		CORE COURSES	88 Credits
MUPF 236 MUPF 346	University Choral II Instrumental Ensemble I		APPLIED MUSIC PERFORMANCE	21 Credits
11011 370	Instrumental Ensemble I		Any of the following instruments 13 Cred	
COGNATE CO		edits	PIANO	13 Credits
EDPC 238	Psychology of Human Growth		MUPF 070 Piano Beginner I (1 credit)	0
EDPC 302	and Development Educational Psychology	2	MUPF 071 Piano Beginner II (1 credit)	0
EDTE 260	Curriculum Principles	ا	MUPF I 10 Piano Concentration I	2
ENGL 453	Literary Studies of English Bible	3	MUPF III Piano Concentration II	2
ENGL 465	Creative Writing	3	MUPF 210 Piano Concentration III	2
FREN 001	Beginning French I	0	MUPF 211 Piano Concentration IV	2
ELECTIVE CO	URSES 6 Cre	dite	MUPF 310 Piano Concentration V	2
MUED 203	Music Education Methodology	2	MUPF 311 Piano Concentration VI MUPF 319 Piano Recital I	2
MUED 407	Independent Study in Music	2	MUPF 319 Piano Recital I	1
MUHL 272	Introduction to Ethnomusicology	2	VOICE	13 Credits
MUHL 315	Piano Literature	1	MUPF 072 Voice Beginner I (I credit)	0
MUHL 325	Vocal Literature	1	MUPF 073 Voice Beginner II (I credit)	0
MUHL 335	Trumpet Literature		MUPF 120 Voice Concentration I  Voice Concentration II	2 2
MUHL 345	Flute Literature		MUPF 220 Voice Concentration III	2
MUPF 114 MUPF 115	Applied Music – Brass Applied Music – Woodwind		MUPF 221 Voice Concentration IV	2
11011-113	Applied Liusic - Moodwilla			_

MUPF 320 MUPF 321	Voice Concentration V Voice Concentration VI	2 2	. ,	for choral conducting major and stun area other than piano.	dents taking
MUPF 329	Voice Recital I		VOICE	4 Cro	edits
TRUMPET	13 Cr	edits	MUPF 072	Voice Beginner I (1 credit)	0
MUPF 074	Trumpet Beginner I ( I credit)	0	MUPF 073	Voice Beginner II (1 credit)	0
MUPF 075	Trumpet Beginner II (1 credit)	0	MUPF 122	Voice Minor I	1
MUPF 130	Trumpet Concentration I	2	MUPF 123	Voice Minor II	1
MUPF 131	Trumpet Concentration II	2	MUPF 222	Voice Minor III	1
MUPF 230	Trumpet Concentration III	2	MUPF 223	Voice Minor IV	1
MUPF 23 I	Trumpet Concentration IV	2	TRUMPET	4 Cr	odite
MUPF 330	Trumpet Concentration V	2	MUPF 074	Trumpet Beginner I (1 credit)	
MUPF 331	Trumpet Concentration VI	2	MUPF 075	Trumpet Beginner II (1 credit)	0
MUPF 339	Trumpet Recital I	1	MUPF 132	Trumpet Minor I	
CLUTE	12.6	124	MUPF 133	Trumpet Minor II	
FLUTE MUPF 076	Fluta Danimana I ( Laradia)		MUPF 232	Trumpet Minor III	
MUPF 076	Flute Beginner I (1 credit) Flute Beginner II (1 credit)	0	MUPF 233	Trumpet Minor IV	
MUPF 140	Flute Concentration I	2	11077 233	Trumpet Minor IV	
MUPF 141	Flute Concentration II	2	FLUTE	4 Cro	edits
MUPF 240	Flute Concentration III	2	MUPF 076	Flute Beginner I ( I credit)	0
MUPF 241	Flute Concentration IV	2	MUPF 077	Flute Beginner II ( I credit)	0
MUPF 340	Flute Concentration V	2	MUPF 142	Flute Minor I	1
MUPF 341	Flute Concentration VI	2	MUPF 143	Flute Minor II	1
MUPF 341	Flute Recital I		MUPF 242	Flute Minor III	1
11011 347	Flute Necital I		MUPF 243	Flute Minor IV	1
CHORAL CO		edits	SAXOPHONE	4 Cr	adite
MUCO 317	Choral Conducting II	2	MUPF 078	Saxophone Beginner I (1 credit)	0
MUCO 210	Choir Training for Young Singers	2	MUPF 079	Saxophone Beginner II (1 credit)	0
MUCO 327	Aural Training for		MUPF 152	Saxophone Minor I	Ĭ
	Choral Conductors	2	MUPF 153	Saxophone Minor II	
MUPF 226	Singer's Diction	I	MUPF 252	Saxophone Minor III	
MUHL 355	Choral Literature	I	MUPF 253	Saxophone Minor IV	
MUPF 356	Choral Ensemble		11011 233	•	
	nal 4 credits of Voice Minor (see belo	v∨).	ALL OF THE F	OLLOWING 4 Cr	edits
Any of the follo	owing instruments 4 Credits		MUPF 114	Applied Music – Brass	
PIANO *	4 Cre	dits	MUPF 115	Applied Music – Woodwind	T.
MUPF 070	Piano Beginner I (1 credit)	0	MUPF 116	Applied Music – Guitar	T.
MUPF 071	Piano Beginner II (1 credit)	0	MUPF 117	Applied Music – Strings	
MUPF 112	Piano Minor I		MUSIC THEO	RY 23 C	redits
MUPF I I 3	Piano Minor II		MUTH 100	Fundamentals of Music	3
N41 IDE 2 1 2	D: 14' III		113111100	Tarradi licitais of Flasic	

Piano Minor III

Piano Minor IV

MUPF 212

MUPF 213

MUTH 101

MUTH 102

Music Theory I

Music Theory II

2

2

MUTH 200	Music Theory III	2	MUPF 346	Instrumental Ensemble I	1
MUTH 201	Music Theory IV	2	MUPF 347	Instrumental Ensemble II	
MUTH 201	Music Theory V	2	11077 347	instrumental Ensemble II	ı
MUTH 300	Music Theory VI	2	COGNATE CO	OURSES 13 Cre	edits
MUTH 300	Music Theory VII	2	EDPC 302	Educational Psychology	3
MUTH 301	Music Theory VIII	2	EDTE 205	Introduction to the	
MUTH 400	Forms and Analysis	2		Teaching Profession	2
MUTH 401	Introductions to Counterpoint	2	EDTE 260	Curriculum Principles	- 1
	•		EDTE 310	Principles of Teaching	3
MUSIC HISTO		dits	EDTE 420	Classroom Testing	
MUHL 270	Survey of Music History I	2		and Evaluation	2
MUHL 27 I	Survey of Music History II	2	EDTE 425	Educational Research Methods	2
MUHL 370	Survey of Music History III	2	FREN 001	Beginning French I	0
MUHL 371	Survey of Music History IV	2	ELECTIVE CO	URSES 6 Cred	lite
AFRICAN MU	SIC 8 Cre	dits	MUCO 219	Choir Training for Young Singers	2
MUTH 206	African Music		MUED 316	Piano Pedagogy	2
	Theory and Practice I	2	MUED 326	Vocal Pedagogy	2
MUTH 207	African Music	_	MUED 336	Trumpet Pedagogy	2
	Theory and Practice II	2	MUED 346	Flute Pedagogy	2
MUTH 306	African Music	_	MUED 407	Independent Study in Music	2
	Theory and Practice III	4	MUHL 272	Introduction to Ethnomusicology	2
	,		MUHL 315	Piano Literature	1
CONDUCTING			MUHL 325	Vocal Literature	
MUCO 217	Fundamentals of Conducting	2	MUHL 335	Trumpet Literature	
MUCO 218	Choral Conducting I	2	MUHL 345	Flute Literature	- 1
CHURCH MUS	SIC 4 Cre	dits	MUPF 226	Singer's Diction	- 1
MUCH 124	Church Music I	2	MUPF 314	Art of Accompaniment	2
MUCH 224	Church Music II	2	MUTH 400	Composition and Arranging	2
			MUTH 401	Orchestration	2
MUSIC EDUCA					
MUED 103	Introduction to Music Education	2 2			
MUED 203	Music Education Methodology	2			
MUED 304	Music Education in the	2			
MUED 305	Elementary School  Music Education in the	2			
1410ED 303	Secondary School	2			
MUED 404	Elementary Teaching Practice	3			
MUED 405	Secondary Teaching Practice	3			
MUED 406	Research Methods in Music	2			
MUSIC ENSEN		dits			
MUPF 235	University Choral I				
MUPF 236	University Choral II				

MINOR IN M	USIC		Any of the follo	owing instruments 3 Credits	
SUMMARY			PIANO	3 Cre	dits
Core Courses	37		MUPF 070	Piano Beginner I (1 credit)	0
Elective Cours	ses 4		MUPF 07 I	Piano Beginner II (1 credit)	0
Total	41 Credits		MUPF 112	Piano Minor I	1
<b>Note:</b> Music r	majors and minors are exempted from (	GCAS 207	MUPF 113	Piano Minor II	1
Music Appreci	,		MUPF 212	Piano Minor III	-1
CORE COUR	SES		VOICE	3 Cre	dits
ADDITED MIT	ISIS DEDECORMANICE	124	MUPF 072	Voice Beginner I (I credit)	0
	SIC PERFORMANCE II Cre	edits	MUPF 073	Voice Beginner II (I credit)	0
Any of the follo	owing instruments 8 Credits		MUPF 122	Voice Minor I	1
PIANO	8 Cree	dits	MUPF 123	Voice Minor II	1
MUPF 070	Piano Beginner I ( I credit)	0	MUPF 222	Voice Minor III	
MUPF 071	Piano Beginner II (1 credit)	0	TRUMPET	3 Cre	dits
MUPF I I O	Piano Concentration I	2	MUPF 074	Trumpet Beginner I ( I credit)	0
MUPF III	Piano Concentration II	2	MUPF 075	Trumpet Beginner II (1 credit)	0
MUPF 210	Piano Concentration III	2	MUPF 132	Trumpet Minor I	1
MUPF 211	Piano Concentration IV	2	MUPF 133	Trumpet Minor II	1
VOICE	8 Cree	dits	MUPF 232	Trumpet Minor III	1
MUPF 072	Voice Beginner I ( I credit)	0	FLUTE	3 Cre	dits
MUPF 073	Voice Beginner II (1 credit)	0	MUPF 076	Flute Beginner I (I credit)	0
MUPF 120	Voice Concentration I	2	MUPF 077	Flute Beginner II (1 credit)	0
MUPF 121	Voice Concentration II	2	MUPF 142	Flute Minor I	i i
MUPF 220	Voice Concentration III	2	MUPF 143	Flute Minor II	i
MUPF 221	Voice Concentration IV	2	MUPF 242	Flute Minor III	İ
TRUMPET	8 Cree	dits	SAXOPHONI	E 3 Cre	dite
MUPF 074	Trumpet Beginner I ( I credit)	0	MUPF 078	Saxophone Beginner I (1 credit)	0
MUPF 075	Trumpet Beginner II ( I credit)	0	MUPF 079	Saxophone Beginner II (1 credit)	0
MUPF 130	Trumpet Concentration I	2	MUPF 152	Saxophone Minor I	I
MUPF 131	Trumpet Concentration II	2	MUPF 153	Saxophone Minor II	i
MUPF 230	Trumpet Concentration III	2	MUPF 252	Saxophone Minor III	i
MUPF 231	Trumpet Concentration IV	2			
FLUTE	8 Cree	lits	MUSIC THEO		
MUPF 076	Flute Beginner I (   credit)	0	MUTH 100	Fundamentals of Music	3
MUPF 077	Flute Beginner II (1 credit)	0	MUTH 101	Music Theory I	2 2
MUPF 140	Flute Concentration I	2	MUTH 102	Music Theory II	2
MUPF 141	Flute Concentration II	2	MUTH 200	Music Theory III	2
MUPF 240	Flute Concentration III	2	MUTH 201	Music Theory IV	2
MUPF 241	Flute Concentration IV	2			
	Tiule Concerniation IV				

<b>MUSIC HISTO</b>	DRY 5 Cre	dits
MUHL 170	Introduction to Music History	3
(Any of the follo	owing)	
MUHL 270	Survey of Music History I	2
MUHL 271	Survey of Music History II	2
MUHL 370	Survey of Music History III	2
MUHL 371	Survey of Music History IV	2
<b>AFRICAN MU</b>	SIC 2 Cre	dits
MUTH 206	SIC 2 Cre African Music	dits
		dits 2
	African Music Theory and Practice I	2
MUTH 206	African Music Theory and Practice I	2
MUTH 206  CONDUCTIN	African Music Theory and Practice I  G 2 Cree Fundamentals of Conducting	2 <b>dits</b> 2

MUSIC EDUCA	ATION 2 Cre	dits
MUED 103	Introduction to Music Education	2
MUSIC ENSEM	1BLES 3 Cre	dits
MUPF 235	University Choral I	
MUPF 236	University Choral II	-1
MUPF 346	Instrumental Ensemble I	- 1
<b>ELECTIVE CO</b>	JRSES 4 Cre	dits
MUCO 219	Choir Training for Young Singers	2
NALILIL 272	–	
MUHL 272	Introduction to Ethnomusicology	2
MUPF 114	Introduction to Ethnomusicology Applied Music – Brass	2 1
	Ξ,	2 
MUPF 114	Applied Music – Brass	2       
MUPF 114 MUPF 115	Applied Music – Brass Applied Music – Woodwind	2       
MUPF 114 MUPF 115 MUPF 116	Applied Music – Brass Applied Music – Woodwind Applied Music – Guitar	2

### **COURSE DESCRIPTIONS**

### GCAS 207 Music Appreciation | Credit

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 includes elements of music as well as an introduction to African Music.

**Note:** Students who register for a major or minor in music are exempted from taking GCAS 207 as this is covered in greater detail in their music courses.

#### **CHURCH MUSIC**

### MUCH 124 Church Music I 2 Credits

A study on principles of music for worship espoused in the Bible and Spirit of Prophecy, that includes survey of historical development of church music from the Bible times to the present by examining the theological concepts practiced during the musical periods. Introduction of Hymnology and critical contextualization methods will also be discussed in this course.

### MUCH 224 Church Music II 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. Collections of critical – contextualized materials are expected. In-reach and out-reach programs are required to give experience to the students through skill trainings, seminar and demonstrations in local churches. **Prerequisite: MUCH 124.** 

#### CONDUCTING

# MUCO 217 Fundamentals of Conducting 2 Credits

This course deals with the philosophy and basic principles of conducting technique. The awareness of the relationship between ear, gestures and sound will be established in this course. **Prerequisite: MUTH 101.** 

### MUCO 218 Choral Conducting I 2 Credits

Astudy of beating technique, rehearsal technique and procedures, choral warm-up methods and score preparation. Other area includes choral administration. **Prerequisite: MUCO 217.** 

### MUCO 219 Choir Training for Young Singers 2 Credits

A study of directing and organizing children's and teenagers' choir with special focus on children vocal techniques, voice change problem, teaching procedures, sight reading skill, and repertoire. **Prerequisite: MUCO 217 or MUPF 120 or MUPF 122.** 

### MUCO 317 Choral Conducting II 2 Credits

Continued development of conducting studies with emphasis on more complex beating techniques, vocal techniques, choral sound and communication. **Prerequisite: MUCO 218.** 

#### MUCO 318 Choral Conducting III 2 Credits

A study of conducting techniques, interpretation of choral/instrumental scores, rehearsal procedures and tonal concepts for Renaissance, Baroque and Classical choral compositions. **Prerequisite: MUCO 317.** 

### MUCO 417 Choral Conducting IV 2 Credits

A study of conducting techniques, interpretation of choral/instrumental scores, rehearsal procedures and tonal concepts for Romantic, Contemporary, Spirituals and Folkloric choral compositions. *Prerequisite: MUCO 318.* 

### MUCO 327 Aural Training for Choral Conductors 2 Credits

A study of aural perception skills for choral conductors, which includes musicianship skills and ear training to diagnose vocal problem. Ways to solve the problem will be discussed.

Prerequisite: MUCO 217 or MUPF 120 or MUPF 122.

#### **MUSIC EDUCATION**

### MUED 103 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 203 Music Education Methodology 2 Credits

A survey of various teaching philosophies, objectives, methodology and materials in classroom teaching. Collection of materials and practicum in the classroom is required. **Prerequisite: MUED 103.** 

### MUED 304 Music Education in the Elementary School 2 Credits

This course examines the principles, objectives, contents, methods and materials in elementary school music teaching. It includes a general survey of a variety of teaching models and their application in the teaching of music and the development of learning aids. A field trip to an elementary school with an established music program is compulsory. **Prerequisite: MUED 203.** 

### MUED 305 Music Education in the Secondary School 2 Credits

This course examines the principles, objectives, contents, methods and materials in secondary school music teaching. It includes a general survey of a variety of teaching models and their application in the teaching of music and the development of learning aids. A field trip to a secondary school with an established music program is compulsory. **Prerequisite: MUED 203.** 

### MUED 316 Piano Pedagogy 2 Credits

Discusses and evaluates various teaching philosophies, objectives, methodology and materials of piano teaching. Practical experience of teaching piano at the elementary and early intermediate levels is compulsory under faculty supervision. **Prerequisite: MUPF 311.** 

### MUED 326 Vocal Pedagogy 2 Credits

Discusses and evaluates various teaching philosophies, objectives, methodology and materials of voice teaching. Practical experience of teaching voice at the elementary and early intermediate levels is compulsory under faculty supervision. **Prerequisite: MUPF 321.** 

### MUED 336 Trumpet Pedagogy 2 Credits

Discusses and evaluates various teaching philosophies, objectives, methodology and materials of trumpet teaching. Practical experience of teaching trumpet at the elementary and early intermediate levels is compulsory under faculty supervision.

Prerequisite: MUPF 331.

### MUED 346 Flute Pedagogy 2 Credits

Discusses and evaluates various teaching philosophies, objectives, methodology and materials of flute teaching. Practical experience of teaching flute at the elementary and early intermediate levels is compulsory under faculty supervision. **Prerequisite: MUPF 341.** 

### MUED 404 Elementary Teaching Practice 3 Credits

Student is exposed to practical experience in teaching elementary 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 304.** 

### MUED 405 Secondary Teaching Practice 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 305.** 

### MUED 406 Research Methods in Music 2 Credit

This is a course that introduces a methodology for Research in Music Education. 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.

### MUED 407 Independent Study in Music 2 C

2 Credits

This is a research project planned with a sponsoring faculty member, with permission of the instructor. 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. Public presentation of the research project is the culmination of this course. **Prerequisite: MUED 406.** 

### **MUSIC HISTORY AND LITERATURE**

### MUHL 170 Introduction to Music History 3 Credits

The course is a general studies on historical development of Western music from Antiquity through Contemporary Period. Emphasis is on the trends, styles, social influences, and aesthetics of the period.

### MUHL 270 Survey of Music History 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. **Prerequisite: MUTH 101.** 

# MUHL 271 Survey of Music History 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 270.** 

### MUHL 272 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.

#### MUHL 315 Piano Literature I Credit

A general overview at selected composers and keyboard compositions of Baroque through Contemporary period. 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 211.** 

#### MUHL 325 Vocal Literature | | Credit

Ageneral overview at selected composers and vocal compositions of Baroque through Contemporary period. 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 221.** 

### MUHL 335 Trumpet Literature | | Credit

A general overview at selected composers and trumpet compositions of Baroque through Contemporary period. 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 231.** 

### MUHL 345 Flute Literature | | Credit

Ageneral overview at selected composers and flute compositions of Baroque through Contemporary period. 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 241.** 

### MUHL 355 Choral Literature | | Credit

A general overview at selected composers and choral compositions of the early music 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: MUCO 317.** 

### MUHL 370 Survey of Music History III 2 Credits

The course is a survey of the historical development of Western music from Romantic through Post Romantic Period with score and aural analysis of representative compositions. Emphasis is on the trends, styles, social influences, and aesthetics of the period. **Prerequisite: MUHL 271.** 

### MUHL 371 Survey of

Music History IV 2 Credits

The course is a survey of the historical development of Western music from 20<sup>th</sup> through 21<sup>th</sup> century with score and aural analysis of representative compositions. Emphasis is on the trends, styles, social influences, and aesthetics of the period. **Prerequisite: MUHL 370.** 

#### **MUSIC PERFOMANCE**

Below is the placement requirement for applied instruments:

#### **Assessment**

# Students with no background in music or instruments

Pass early elementary level test

### **Placement**

MUPF 070/MUPF 072/ MUPF 074/MUPF 076

MUPF 071/MUPF 073/ MUPF 075/MUPF 077

### MUPF 070 Piano Beginner I (1 hour/week)

(I hour/week) 0 Credit

An introduction to piano skills for students starting piano studies with no prior knowledge in music or piano. This course provides basic knowledge in piano playing which includes sight reading and repertoire building at early elementary level.

### MUPF 07 I Piano Beginner II (I hour/week) 0 Credit

A study in mastering piano skills which includes exercises of major – minor (harmonic) keys up to 2 sharps and flats in form of scales, triads, arpeggios and cadences. A minimum of 5 pieces at mid elementary level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 070 or pass an assessment exam of early elementary level test.* 

### MUPF 072 Voice Beginner I

(I hour/week) 0 Credit

0 Credit

0 Credit

An introduction to vocal skills for students starting vocal studies with no prior knowledge in music or voice. This course provides basic knowledge in singing which includes repertoire building at early elementary level.

# MUPF 073 Voice Beginner II (1 hour/week)

A study in mastering vocal skills which includes early to mid – elementary level of vocal technique, exercises and repertoire of songs from categories of sacred, English and Italian literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 072 or pass an assessment exam of early elementary level test.** 

### MUPF 074 Trumpet Beginner I (I hour/week)

An introduction to trumpet skills for students starting trumpet studies with no prior knowledge in music or trumpet. This course provides basic knowledge in trumpet playing which includes sight reading and repertoire building at early elementary level.

### MUPF 075 Trumpet Beginner II (I hour/week) 0 Credit

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from mid – elementary level from Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 074 or pass an assessment exam of early elementary level test.* 

### MUPF 076 Flute Beginner I (I hour/week) 0 Credit

An introduction to flute skills for students starting flute studies with no prior knowledge in music or flute. This course provides basic knowledge in flute playing which includes sight reading and repertoire building at early elementary level.

### MUPF 077 Flute Beginner II

(I hour/week) 0 Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs from mid – elementary level from Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 076 or pass an assessment exam of early elementary level test.* 

### MUPF 078 Saxophone Beginner I (I hour/week) 0 Credit

An introduction to saxophone skills for students starting saxophone studies with no prior knowledge in music or saxophone. This course provides basic knowledge in saxophone playing which includes sight reading and repertoire building at early elementary level.

### MUPF 079 Saxophone Beginner II (I hour/week) 0 Credit

A study in mastering saxophone skills which includes technique, exercises and repertoire of songs from mid – elementary level from Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 078 or pass an assessment exam of early elementary level test.* 

#### PRIMARY CONCENTRATION - PIANO

### MUPF 110 Piano

Concentration I 2 Credits

A study in mastering piano skills which includes exercises of major – minor (harmonic) keys up to 4 sharps and flats in form of scales, triads, arpeggios and cadences. A minimum of 5 pieces at late elementary level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 011** or **pass** an **assessment exam** of **mid-elementary level test.** 

### MUPF III Piano Concentration II 2 Credits

A study in mastering piano skills which includes exercises of all major – minor (harmonic) keys in form of scales, triads, arpeggios and cadences. A minimum of 4 pieces at early intermediate level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 110*.

### MUPF 210 Piano

**Concentration III** 2 Credits

A study in mastering piano skills which includes exercises of all major – minor (harmonic) keys in form of scales, triads, arpeggios and cadences. A minimum of 4 pieces from the four periods at intermediate level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF** 

### MUPF 211 Piano Concentration IV 2 Credits

A study in mastering piano skills which includes exercises of all major — minor (harmonic & melodic) keys in form of scales, triads, arpeggios and cadences. A minimum of 4 pieces from the four periods at late intermediate level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination.

Prerequisite: MUPF 210.

### MUPF 310 Piano Concentration V 2 Credits

A study in mastering piano skills which includes exercises of all major – minor (harmonic & melodic) keys in form of scales, triad octave, arpeggios and cadences. A minimum of 4 pieces from the four periods at early advance level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of hymns and choruses. A public recital of one memorized song is required prior to final examination.

Prerequisite: MUPF 211.

#### MUPF 311 Piano

#### Concentration VI 2 Credits

A study in mastering piano skills which includes exercises of all major – minor (harmonic & melodic) keys in form of scales, triads octave, dominant 7<sup>th</sup>, arpeggios and cadences. A minimum of 4 pieces from the four periods at advanced level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of hymns and choruses. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 310.* 

### MUPF 319 Recital I Credit

This course serves as a junior recital of B.A Music Performance concentration in Piano and a final recital of B.M Music Education concentration in Piano. A minimum of 45 minutes performance is required. **Prerequisite: MUPF 311.** 

### MUPF 410 Piano Concentration VII 2 Credits

A study in mastering piano skills which includes exercises of all major – minor (harmonic & melodic) keys in form of scales, triads octave, dominant 7th, dominant 7th arpeggios and cadences. A minimum of 4 pieces from the four periods at advanced level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of hymns and choruses. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 311*.

### MUPF 411 Piano Concentration VIII 2 Credits

A study in mastering piano skills at advance level and a preparation of final recital with a set of repertoire from Baroque to Contemporary period. An ensemble work may be part of the program, preferably a concerto. An audition for final recital will serve as the final exam. **Prerequisite: MUPF 410.** 

### MUPF 419 Recital II I Credit

This course serves as a senior recital of B.A Music Performance concentration in Piano. Students that will take this course must be in an advance level. A minimum of 60 minutes performance is required. **Prerequisite: MUPF 411.** 

#### **PRIMARY CONCENTRATION – VOICE**

### MUPF 120 Voice

#### Concentration I 2 Credits

A study in mastering vocal skills which includes late elementary level of vocal technique, exercises and repertoire of songs from categories of sacred, English and Italian literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination.

### MUPF 121 Voice

### **Concentration II** 2 Credits

A study in mastering vocal skills which includes early intermediate level of vocal technique, exercises and repertoire of songs from categories of sacred, English and Italian literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 120.* 

### MUPF 220 Voice Concentration III 2 Credits

A study in mastering vocal skills which includes intermediate level of vocal technique, exercises and repertoire of songs repertoire of songs from categories of sacred, English, Italian and Spanish literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF** 121.

### MUPF 221 Voice

#### Concentration IV 2 Credits

A study in mastering vocal skills which includes late intermediate level of vocal technique, exercises and repertoire of songs repertoire of songs from categories of sacred, English, Italian, Spanish, and German literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination.

Prerequisite: MUPF 220.

### MUPF 320 Voice

### **Concentration V** 2 Credits

A study in mastering vocal skills at early advance level, which includes exercises from instructor, and repertoire of songs from categories of sacred/oratorios, English, Italian, Spanish, German and French literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 221.** 

### MUPF 321 Voice

#### Concentration VI 2 Credits

A study in mastering vocal skills at advance level, which includes exercises from instructor, and repertoire of songs from categories of oratorios, English, Italian, Spanish, German and French literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 320.** 

### MUPF 329 Voice Recital I | I Credit

This course serves as a junior recital of B.A Music Performance concentration in Voice and a final recital of B.M Music Education concentration in Voice. A minimum of 45 minutes performance is required. *Prerequisite: MUPF 329.* 

### MUPF 420 Voice

#### Concentration VII 2 Credits

A study in mastering vocal skills at advance level, which includes exercises from instructor, and repertoire of songs from categories of oratorios, operatic arias, English, Spanish, German and French literature as well as African art songs. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 329.** 

### MUPF 421 Voice

### **Concentration VIII** 2 Credits

A study in mastering vocal skills at advance level and a preparation of final recital with a set of repertoire consisting variety of different periods and categories from oratorios, operatic arias, English, Spanish, German, French and African literature as well as song – cycle. An ensemble work may be part of the program. An audition for final recital will serve as the final exam.

### Prerequisite: MUPF 420.

### MUPF 429 Voice Recital II I Credit

This course serves as a final recital of B.A Music Performance concentration in Voice. Students that will take this course must be in advance level. A minimum of 60 minutes performance is required. **Prerequisite: MUPF 420.** 

### **PRIMARY CONCENTRATION – TRUMPET**

### MUPF 130 Trumpet

### **Concentration I** 2 Credits

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from late elementary level from Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination.

### MUPF 131 Trumpet

#### **Concentration II** 2 Credits

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from early intermediate level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 130.** 

### MUPF 230 Trumpet Concentration III 2 Credits

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from intermediate level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF** 131.

### MUPF 231 Trumpet Concentration IV 2 Credits

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from late intermediate level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 230.** 

### MUPF 330 Trumpet Concentration V 2 Credits

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from early advance level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF** 231.

### MUPF 33 I Trumpet Concentration VI 2 Credits

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs from advanced level repertoire of songs from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 330.** 

### MUPF 339 Trumpet Recital I | I Credit

This course serves as a junior recital of B.A Music Performance concentration in Trumpet and a final recital for B.M Music Education concentration in Trumpet. A minimum of 45 minutes performance is required. **Prerequisite: MUPF 331.** 

### MUPF 430 Trumpet Concentration VII 2 Credits

A study in mastering trumpet skills which includes exercises from advanced level repertoire of songs from the the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 331.** 

### MUPF 431 Trumpet Concentration VIII 2 Credits

A study in mastering trumpet skills at advance level and a preparation of final recital with a set of repertoire from the Baroque to Contemporary period. An ensemble work may be part of the program, preferably a concerto. An audition for final recital will serve as the final exam. **Prerequisite: MUPF 430.** 

### MUPF 439 Trumpet Recital II I Credit

This course serves as a final recital of B.A Music Performance concentration in Trumpet. Students that will take this course must be in advance level. A minimum of 60 minutes performance is required. **Prerequisite: MUPF 431.** 

#### **PRIMARY CONCENTRATION – FLUTE**

### MUPF 140 Flute

#### Concentration I 2 Credits

A study in mastering flute skills which includes technique, exercises and repertoire of songs from late elementary level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination.

### MUPF 141 Flute

#### **Concentration II** 2 Credits

A study in mastering flute skills which includes technique, exercises and repertoire of songs from early intermediate level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 140.** 

### MUPF 240 Flute Concentration III 2 Credits

A study in mastering flute skills which includes technique, exercises and repertoire of songs from intermediate level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 141.** 

### MUPF 241 Flute Concentration IV 2 Credits

A study in mastering flute skills which includes technique, exercises and repertoire of songs from late intermediate level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 240**.

### MUPF 340 Flute Concentration V 2 Credits

A study in mastering flute skills which includes technique, exercises and repertoire of songs from early advance level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 241*.

### MUPF 341 Flute Concentration VI 2 Credits

A study in mastering flute skills which includes technique, exercises and repertoire of songs from advanced level from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 340.** 

#### MUPF 349 Flute Recital I Credit

This course serves as a Junior Recital of B.A Music Performance concentration in Flute and a final recital for B.M Music Education concentration in Flute. A minimum of 45 minutes performance is required. **Prerequisite: MUPF 341.** 

### MUPF 440 Flute Concentration VII 2 Credits

A study in mastering flute skills which includes exercises from advanced level repertoire of songs from the Baroque to Contemporary periods. A minimum of 3 public performances are required, one of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 341.** 

### MUPF 441 Flute Concentration VIII 2 Credits

A study in mastering flute skills which includes exercises from advanced level repertoire of songs from the Baroque to Contemporary periods. An ensemble work may be part of the program, preferably a concerto. An audition for final recital will serve as the final exam. **Prerequisite: MUPF 440.** 

### MUPF 449 Flute Recital II I Credit

This course serves as a final recital of B.A Music Performance concentration in Flute. Students that will take this course must be in advance level. A minimum of 60 minutes performance is required. **Prerequisite: MUPF 441.** 

#### **SECONDARY CONCENTRATION – PIANO**

#### MUPF 112 Piano Minor I I Credit

A study in mastering piano skills which includes exercises of major – minor (harmonic) keys up to 4 sharps and flats in form of scales, triads, arpeggios and cadences. A minimum of 3 pieces at late elementary level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination.

#### MUPF 113 Piano Minor II I Credit

A study in mastering piano skills which includes exercises of all major – minor (harmonic) keys in form of scales, triads, arpeggios and cadences. A minimum of 3 pieces at early intermediate level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 112*.

### MUPF 212 Piano Minor III I Credit

A study in mastering piano skills which includes exercises of all major – minor (harmonic) keys in form of scales, triads, arpeggios and cadences. A minimum of 3 pieces from the four periods at intermediate level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 113.** 

### MUPF 213 Piano Minor IV I Credit

A study in mastering piano skills which includes exercises of all major — minor (harmonic & melodic) keys in form of scales, triads, arpeggios and cadences. A minimum of 3 pieces from the four periods at late intermediate level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of simple hymns and choruses. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 212.** 

#### MUPF 312 Piano Minor V I Credit

A study in mastering piano skills which includes exercises of all major — minor (harmonic & melodic) keys in form of scales, triads octave, arpeggios and cadences. A minimum of 3 pieces from the four periods at late intermediate/ early advance level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of hymns and choruses. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 213.** 

#### MUPF 313 Piano Minor VI I Credit

A study in mastering piano skills which includes exercises of all major – minor (harmonic) keys in form of scales, triads octave, dominant 7<sup>th</sup>, arpeggios and cadences. A minimum of 3 pieces from the four periods at early advanced level is compulsory. This course also emphasizes on sight reading skill, harmonization and transposition of hymns and choruses. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 312.** 

#### SECONDARY CONCENTRATION - VOICE

#### MUPF 122 Voice Minor I I Credit

A study in mastering vocal skills which includes early to mid – elementary level of vocal technique, exercises and repertoire of songs from categories of sacred, English and Italian literature as well as African art songs. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination.

### MUPF 123 Voice Minor II I Credit

A study in mastering vocal skills which includes late elementary level of vocal technique, exercises and repertoire of songs from categories of sacred, English and Italian literature as well as African art songs. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 122.** 

#### **MUPF 222 Voice Minor III** I Credit

A study in mastering vocal skills which includes early intermediate level of vocal technique, exercises and repertoire of songs repertoire of songs from categories of sacred, English, Italian and Spanish literature as well as African art songs. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: MUPF 123.

#### **MUPF 223 Voice Minor IV** I Credit

A study in mastering vocal skills which includes intermediate level of vocal technique, exercises and repertoire of songs from categories of sacred, English, Italian, Spanish, and German literature as well as African art songs. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: MUPF 222.

#### **MUPF 322** Voice Minor V I Credit

A study in mastering vocal skills at late intermediate level, which includes exercises from instructor, and repertoire of songs from categories of sacred/oratorios, English, Italian, Spanish, German and French literature as well as African art songs. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: **MUPF 223.** 

#### **MUPF 323 Voice Minor VI** I Credit

A study in mastering vocal skills at early advance level, which includes exercises from instructor, and repertoire of songs from categories of oratorios, English, Italian, Spanish, German and French literature as well as African art songs. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: MUPF 322.

### SECONDARY CONCENTRATION – TRUMPET

#### **MUPF 132 Trumpet Minor I** I Credit

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs at late elementary level from Baroque to Contemporary periods. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination.

#### **MUPF 133 Trumpet Minor II**

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs at early intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: MUPF 132.

#### **MUPF 232** Trumpet Minor III I Credit

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs at intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: MUPF 133.

#### **MUPF 233 Trumpet Minor IV** I Credit

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs at late intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. Prerequisite: MUPF 232.

#### **MUPF 332 Trumpet Minor V** I Credit

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs at late intermediate/ early advance level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination.

Prerequisite: MUPF 233.

#### MUPF 333 Trumpet Minor VI I Credit

A study in mastering trumpet skills which includes technique, exercises and repertoire of songs at early advanced level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, one of them is a musical offering in the church service. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 332.** 

#### **SECONDARY CONCENTRATION - FLUTE**

### MUPF 142 Flute Minor I I Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs at late elementary level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination.

### MUPF 143 Flute Minor II I Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs at early intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 142.** 

### MUPF 242 Flute Minor III I Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs at intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 143.** 

#### MUPF 243 Flute Minor IV I Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs at late intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 242*.

#### MUPF 342 Flute Minor V I Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs at late intermediate/early advance level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 243.** 

#### MUPF 343 Flute Minor VI I Credit

A study in mastering flute skills which includes technique, exercises and repertoire of songs at early advanced level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 342.** 

### **SECONDARY CONCENTRATION - SAXOPHONE**

### MUPF 152 Saxophone Minor I | Credit

A study in mastering saxophone skills which includes technique, exercises and repertoire of songs late elementary level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination.

### MUPF 153 Saxophone Minor II | I Credit

A study in mastering saxophone skills which includes technique, exercises and repertoire of songs at early intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 152.** 

### MUPF 252 Saxophone Minor III I Credit

A study in mastering saxophone skills which includes technique, exercises and repertoire of songs at intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 153.** 

### MUPF 253 Saxophone Minor IV | I Credit

A study in mastering saxophone skills which includes technique, exercises and repertoire of songs at late intermediate level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 252.** 

### MUPF 352 Saxophone Minor V | Credit

A study in mastering flute saxophone which includes technique, exercises and repertoire of songs at late intermediate/ early advance level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. **Prerequisite: MUPF 253.** 

### MUPF 353 Saxophone Minor VI | I Credit

A study in mastering saxophone skills which includes technique, exercises and repertoire of songs at early advanced level from the Baroque to Contemporary periods. A minimum of 2 public performances are required, on of them a musical offering in the Church. A public recital of one memorized song is required prior to final examination. *Prerequisite: MUPF 352*.

#### **APPLIED MUSIC PERFORMANCE**

### MUPF 114 Applied Music

- Brass I Credit

A study and learning of the basic skills of brass instruments. One is required to play from different periods of music.

### MUPF 115 Applied Music

- Woodwind I Credit

A study and learning of the basic skills of woodwind instruments. One is required to play from different periods of music.

### MUPF 116 Applied Music

- Guitar I Credit

A study and learning of the basic skills of guitar. One is required to play from different periods of music.

### MUPF 117 Applied Music

- Strings I Credit

A study and learning of the basic skills of string instruments. One is required to play from different periods of music.

### MUPF 216 Singer's Diction I 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 210 or MUPF 222.** 

#### **MUSIC ENSEMBLES**

#### MUPF 235 University Chorale I | | Credit

The course includes regular membership in the University Chorale. Participation in public performances is required. The student is involved in leadership roles such as keeping the attendance records, planning for concerts and being a role model in both general conduct and expressive musicianship. Registration is after the first year of study in music. Also open for non-music majors by audition.

### MUPF 236 University Chorale II | Credit

The course includes regular membership in the University Chorale. Participation in public performances is required. The student is involved in leadership roles such as keeping the attendance records, planning for concerts and being a role model in both general conduct and expressive musicianship. Also open for non-music majors by audition. **Prerequisite: MUPF 235.** 

### MUPF 314 Art of Accompaniment 2 Credits

A practical study to accompany various genres of vocal and instrumental pieces from Baroque to Contemporary period. Improvisation is an integral aspect of this course. Students are required to accompany choirs and services in church. **Prerequisite:** MUPF 211.

### MUPF 346 Instrumental Ensemble I

The study offers opportunity for students to perform ensemble works from Baroque to Contemporary periods. Students learn how to coordinate with each other as they perform together. Prerequisite: MUPF 211 or MUPF 221 or MUPF 231 or MUPF 241 or MUPF 213 or MUPF 223 or MUPF 243.

I Credit

### MUPF 347 Instrumental Ensemble II

I Credit

Expansion of repertoire from Instrumental Ensemble I ranging from Baroque to Contemporary period. Students learn how to coordinate with each other as they perform together. Enrollment of this course must be under recommendation of the instructor.

#### MUPF 356 Choral Ensemble | | Credit

Student will participate and organized a program for 3 different kinds of choirs from different levels. Options includes children's choir, teenagers' choir, local church choir, vocal ensemble (with maximum 8 - 16 members), male chorus, ladies chorus, chamber choir, and mixed choir. There should be at least one newly formed unschooled amateur choir participating. **Prerequisite: MUCO 317.** 

### MUPF 456 Conducting Performance I I Credit

This course serves as a junior recital of B.A Music Performance concentration in choral conducting. A balance programming from different musical periods and stylistic performance practice is expected. One third of the program must include acapella compositions. *Prerequisite: MUCO 318.* 

### MUPF 457 Conducting Performance II I Credit

This course serves as a final recital of B.A Music Performance concentration in choral conducting. A balance program from different musical periods and stylistic performance practice is expected. The repertoire may include ensemble work and song-cycle. This course should be taken together with MUCO 417. **Prerequisite: MUCO 357.** 

#### **MUSIC THEORY**

### MUTH 100 Fundamentals of Music

3 Credits

This course introduces the students to elements of music, scales and tonality, rhythm, intervals and introduction to triads and seventh chords and diatonic chords in major and minor keys. Ear training and sight reading/singing are integral parts of this course.

### MUTH 101 Music Theory I 2 Credits

This course entails the study of the principles of voice leading, part writing in root position and its inversions, harmonic progression, cadences, phrases, periods and non-chord tones in diatonic triads. Ear training and sight reading/singing are integral parts of this course. *Prerequisite: MUTH 100 or pass a challenge exam of MUTH 100.* 

### MUTH 102 Music Theory II 2 Credits

This course is the continuation of MUTH 101which entails the study of the principles of voice leading, part writing in root position and its inversions, harmonic progression, cadences, phrases, periods and non-chord tones in diatonic triads. Ear training and sight reading/singing are integral parts of this course. **Prerequisite: MUTH 101.** 

### MUTH 200 Music Theory III 2 Credits

This course entails the review and mastery of material covered in MUTH 102 and the study of the principles of voice leading, part writing in root position and its inversions, harmonic progression in diatonic seventh triads. Ear training and sight reading/singing are integral parts of this course. *Prerequisite: MUTh 102.* 

### MUTH 201 Music Theory IV 2 Credits

This course continuation MUTH 200 which entails the study of the principles of voice leading, part writing in root position and its inversions, harmonic progression in diatonic seventh triads. Ear training and sight reading/singing are integral parts of this course. **Prerequisite: MUTH 200.** 

### MUTH 202 Music Theory V 2 Credits

This course entails the review and mastery of material covered in MUTH 201 and the study of secondary functions and modulation techniques. Ear training and sight reading/singing are integral parts of this course. **Prerequisite: MUTH 201.** 

### MUTH 206 African Music Theory and Practice I 2 Credits

This course is an introduction to African music theory and practice. It includes melodic and rhythmic characteristics of indigenous African melodies, harmonic devices, and the influence of speech tones on melodies, harmonic scale patterns, music and related arts, the influence of Western Music in African Music practice. The course includes also melody and polyphony in instrumental music, rhythmic basis of instrumental music and conventions of music practice.

### MUTH 207 African Music Theory and Practice II 2 Credits

This is a continuation of African Music Theory and Practice I with a detailed study of the theories and structures. The course includes the study of the polyphony aspects in the instrumental music, rhythmic basis of instrumental music and conventions of music practice at an advance level.

### MUTH 300 Music Theory VI 2 Credits

This course continuation MUTH 202 which entails the study of secondary functions and modulation techniques. Ear training and sight reading/singing are integral parts of this course. **Prerequisite: MUTH 202.** 

### MUTH 301 Music Theory VII 2 Credits

This course entails the review and mastery of material covered in Theory III and the study of borrowed chords, Neapolitan chord, augmented sixth chords and further elements of the harmonic vocabulary. Ear training and sight reading/singing are integral parts of this course. **Prerequisite: MUTH 300.** 

### MUTH 302 Music Theory VIII 2 Credits

This course continuation MUTH 301 which entails the study of borrowed chords, Neapolitan chord, augmented sixth chords and further elements of the harmonic vocabulary. Ear training and sight reading/singing are integral parts of this course. **Prerequisite: MUTH 301.** 

### MUTH 306 African Music Theory and Practice III 4 Credits

This is a continuation of African Music Theory and Practice II. It involves the students going for a field study accompanied by their instructor to at least two communities where the students carry a research on the music cultural performance displayed in those communities. This can be recorded using a recording device which the student will later use in analysing the music. The period for this field study should 2 to 4 weeks. The rest of the trimester is for the analysis of the music recorded and captured. **Prerequisite: MUTH 207.** 

### MUTH 400 Forms 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 302.** 

### MUTH 401 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 302.** 

### MUTH 402 Compositions and Vocal Arranging 2 Credits

A study of the fundamentals of music composition and vocal arranging in various forms and structures. **Prerequisite: MUTH 400.** 

### MUTH 403 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 texture. It also includes the scoring of family groups of instruments (strings, woodwinds, brass, percussion, etc.) leading to the scoring of full orchestra. **Prerequisite: MUTH 400.** 

### **DEPARTMENT OF THEOLOGY AND RELIGIOUS STUDIES**

#### **FACULTY**

Odek, R. -(Ag. Chairperson)

Idowu, B. -(Part time) Kesis, R. -(Part time)

Miyayo, L. Nyarangi, J. Nyaundi, N.

Ouma, J. -(Part time) Wahonya, P. -(Part time)

Wamalika, C.

**Email:** hod theology@ueab.ac.ke

#### **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 Christian education, an education that is committed to the development of the individual spiritually, mentally, physically and socially.

#### **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 the Creator God, the family, community and church through application of the principles of sound Bible-based Christian education.

### **OBJECTIVES**

The department strives to achieve the following:

- I. To provide theological knowledge that is both culturally and contextually grounded in the Christian African reality and the world at large.
- 2. To equip students with practical skills through practicum, evangelistic and outreach activities.
- 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.

#### **EXPECTED LEARNING OUTCOMES**

By the end of the programme in Theology and Religious Studies, the student should be able to:

- 1. Define such terms as religion, theology and religious studies;
- 2. Describe how God is the ultimate reality as evidenced in the Bible, nature, and human experience;
- 3. Discuss religious and theological beliefs and practices in the context of African cultural background;
- 4. Explain the Christian doctrines of Scriptures, God, trinity, angels, creation, sin, Satan, death, salvation, judgement, salvation, Grace, conversation, baptism, eschatology, second coming of Jesus Christ, resurrection, new heaven and new earth:
- 5. Discuss the virgin birth of Jesus Christ, temptations, teaching, death and resurrection;
- 6. Narrate a historical background of the raise and development of the Christian Church;
- 7. Explain events that lead to the raise of protestant reformation in the Christian church;
- 8. Explain the protestant interpretation of the Bible;
- 9. Recall the historical and Biblical backgrounds of the raise of the Seventh-day Adventist Church;

- 10. Compare Christian Religious beliefs and practices with those of other world religions including Judaism, Islam, Hinduism, Buddhism, Confucianism, Jainism, Taoism, Sikhism, and African traditional religion;
- II. Explain Christian ethical issues and alternatives in decision making;
- 12. Parse and interpret Biblical words and texts based on Greek and Hebrew languages;
- 13. Translate Greek and Hebrew texts in English language;
- 14.Interpret Bible texts based on protestant exegetical methods within the context of history, archaeology and Biblical languages;
- 15. Prepare and deliver different types of sermon;
- 16. Conduct guidance and counselling seminars to members of the church who need them;
- 17. Participate in outreach and evangelistic campaigns;
- 18. Proceed for further studies.

#### **DEGREES OFFERED BY THE DEPARTMENT**

- I. Bachelor of Arts in Theology
- 2. Bachelor of Arts in Religion
- 3. Minor in Religion

#### **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 and 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.

### **REQUIREMENTS FOR GRADUATION**

- 1. For Bachelor of Arts in Theology
  - Non Academic Requirements;
     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 Christian ministry and in particular the Seventh-day Adventist ministry.
    - ii) 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.
    - iii) Students will be advanced to candidacy for graduation at the end of their junior standing.
  - b) Academic Requirements
    - i) A minimum of I44 credits with a cumulative GPA of 2.00.
    - ii) A minimum cumulative GPA of 2.25 in the core courses.
- 2. For Bachelor of Arts in Religion
- 3. The BA in Religion is a program designed for those interested mainly in an academic pursuit of Religion.
  - a) A minimum of 144 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 144 credits. Under such circumstances, the substitute courses will need to be approved by the department before the student can enroll for them.
  - b) A minimum cumulative GPA of 2.25 in the Religion core courses.
  - c) An overall cumulative GPA of 2.00

### FOUNDATION COURSE FOR THE MASTERS STUDENTS FROM ALL AREAS.

RELT 705

Christian Ethics

2 Credits

### **BACHELOR OF ARTS IN THEOLOGY**

### **SUMMARY**

General Education Courses	43
Core Courses	93
Cognate Courses	11
Elective Courses	4
Total	141 Credits

### **GENERAL EDUCATION COURSES** 43 Credits

**Note:** Theology students take RELB 320 in place of RELB 220, and RELT 423 and 424 in place of RELT 207, and RELH 227 in place of RELH 155.

<b>CORE COU</b>	RSES 93 Cre	dits
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 I I O	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 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	3
RELH 280	History of the Christian	
	Church in Africa	2
RELH 314	History of the Christian Church I	2
RELH 315	History of the Christian Church II	2
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	Foundations of Youth Ministry	2

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 385	Pastoral Counseling	
	and Psychology	2
RELP 402	Introduction to Chaplaincy	2
RELP 440	Introduction to Pastoral Ministry	3
RELP 450	Strategic Planning	2
RELP 461	Ministerial Practicum I	- 1
RELP 462	Ministerial Practicum II	- 1
RELP 463	Ministerial Practicum III	- 1
RELT 130	African Traditional Religions	2
RELT 215	Research Methods	
	in Religious Studies I	-1
RELT 218	Comparative Religions	2
RELT 329	Islamic Studies	2
RELT 389	Issues in Religion and Science	2
RELT 415	Research Methods	
	in Religious Studies II	-1
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2
RELT 426	Writings and Philosophy	
	of Ellen G. White	2

COGNATE COURSES 11 Credit					
ACCT IIO	Bookkeeping and Accounting	2			
ENGL 453	Literary Studies of the English Bible	3			
HIST 130	History of Africa Up to 1885	3			
HIST 131	History of Africa from 1885-1945	3			

ı	<b>ELECTIVE COURSES</b> 4 Credi				
	RELB 311		Introduction to		
			Biblical Archaeology	2	
	RELT 318		New Religious		
			Movements 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
TCED 102	Technology for Ministry	1

# BACHELOR OF ARTS IN RELIGION SUMMARY

General Education Courses	43
Core Courses	53
Cognates	9
Electives	8
Minor	32-36

Total 145-149 Credits

### **GENERAL EDUCATION COURSES** 43 Credits

**Note:** Religion majors take RELB 320 in place of RELB 220, and RELT 423 and RELT 424 in place of RELT 207, and RELH 180 in place of RELH 155.

CORE COU	RSES	53 Credit	S
RELB 110	Biblical Backgrounds	2	

RELB I I O	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 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	3
RELT 130	African Traditional Religions	2
RELT 215	Research Methods	
	in Religious Studies I	1
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 415	Research Methods	
	in Religious Studies	1
RELT 423	Christian Doctrines I	2
RELT 424	Christian Doctrines II	2
RELT 426	Writings and Philosophy	
	of Ellen G. White	2

•	COGNATE	CO	URSES 9 Cred	lits
	LITE 453		Literary Studies of the English Bible	3
	RELH 314		History of the Christian Church I	2
	RELH 315		History of the Christian Church II	2
	RELH 280		History of the Christian	
			Church in Africa	2

Ì	ELECTIVE COURSES 8 Credit				
	ACCT 110		Bookkeeping and Accounting	2	
	HIST 203		History of Africa up to 1885	3	
	HIST 204		History of Africa from 1885-1945	3	
	RELB 311		Introduction to		
			Biblical Archaeology	2	
	RELT 33 I		Phenomenology of Religion	2	
	RELT 338		Religion and the State in Africa	2	

# MINOR IN RELIGION Note: Religion minors take RELB 320 in place of RELB 220, and RELT 423 and RELT 424 in place of RELT 207, and RELH

180 in place of RELH 155.

CORE COURSES 24 Cre				
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	3	
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	

<b>ELECTIVE COURSES</b> 6 Cred				
RELB 202	Law and Writings of			
	the Old Testament	3		
RELB 311	Introduction to			
	Biblical Archaeology	2		
RELB 350	Biblical Hermeneutics	2		
RELB 374	Prophets of Israel I	2		
RELB 375	Prophets of Israel II	2		
RELB 434	Acts and Epistles I	2		
RELB 435	Acts and Epistles II	2		

### **COURSE DESCRIPTIONS**

#### **BIBLICAL LANGUAGES**

### BIBL 201 Elementary Greek I 3 Credits

This course, which is the first of a two trimester 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 trimester 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 trimester 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 New Testament exegesis. **Prerequisite: BIBL 202.** 

### BIBL 302 Intermediate Greek II 2 Credits

This course, the second of a two trimester 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.** 

#### **BIBLICAL STUDIES**

#### 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 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 - General 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 2 Credits

The course introduces the student to the phenomena of biblical prophets and includes the history of prophecy, the pre-writing prophetic figures, and the books of the writing prophets of the 8th and early 7<sup>th</sup> century B.C. Research paper may be required.

### RELB 275 Prophets of Israel II 2 Credits

The course is a second module on the study of the prophets and includes the books of the writing prophets of the late 7<sup>th</sup> century B.C. to the end of the prophetic canon. Research paper may be required. **Prerequisite: RELB 274.** 

#### RELB 304 Studies in Daniel 2 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.

### **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.

# 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.

#### **RELB 350** Biblical Hermeneutics 2 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 an introduction to the principles of New Testament interpretation followed by a study of Acts and the early Pauline Epistles, thus exposing 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 Romans to the Pastoral Epistles, followed by an introduction to Hebrews and the General Epistles. Research paper may be required. **Prerequisite: RELB 434.** 

#### **CHURCH HISTORY**

### **RELH 155** Adventist Heritage 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 is a general requirement course designed for all students except for the Theology and Religion majors who take RELH 227 History of the Adventist Church instead.

### RELH 180 History of the Adventist Church 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 course is for Theology and Religion majors in place of RELH 155.

### RELH 280 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-19<sup>th</sup> century to the present.

### 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. I. 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.** 

### STUDIES IN RELIGION, THEOLOGY AND PHILOSOPHY

### RELT 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.

### **RELT 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.

# RELT 215 Research Methods in Religious Studies I I Credit

The course is an introduction to the study of theories and methods of doing research in religion and covers such topics as definition of research, the research process, kinds of research, the value of research, library and online resources, etc.

### 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 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 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 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 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 fides quaerens intellectum (Faith seeking understanding) (Anselm) and Credo ut intelligam (I believe so that I may understand) (Augustine).

### 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 415 Research Methods in Religious Studies II | 1 Credit

The course prepares the religion students to embark on the study of theories and methods of doing research in religion. This course is aimed at introducing the student into possible continued examination and critical analysis of religion as a neverending phenomenon in society.

#### 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.

#### 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 & 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.

#### **RELT 705** Christian Ethics 2 Credits

This course focuses on the study of the characteristics of an ethic derived from the knowledge of God as the King of the Universe. It includes how the Christian perspective influences one's view of personal and socio-political responsibility to individuals, communities and society.

#### **APPLIED THEOLOGY**

### RELP 116 Church Music and Worship 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.

### RELP 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.

### RELP 215 Literature Evangelism | | 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).

### RELP 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.

### **RELP 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: RELP 221.** 

### RELP 235 Foundations of Youth Ministry

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.

I Credit

### RELP 275 Marriage and the Family 2 Credits

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.

### RELP 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.

### RELP 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.** 

### RELP 310 Field School of Evangelism I 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).

### RELP 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.

### RELP 385 Pastoral Counseling 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.

## RELP 402 Introduction to Chaplaincy 2 Credits

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.

### RELP 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.** 

### RELP 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.

### RELP 461 Ministerial Practicum I

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, RELP 222 or permission of the instructor.* 

I Credit

I Credit

### RELP 462 Ministerial Practicum II

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

### RELP 463 Ministerial Practicum III I Credit

subsidiary entities. Prerequisite: RELP 461.

This course is a continuation of Ministerial Practicum II. The student is expected to work in a practical pastoral setting, analyzing and synthesizing the various challenges and opportunities of ministry. **Prerequisite: RELP 462.** 

### TCED 102 Technology for Ministry 1 Credit

The course is an introduction to a practical application of various technological devices and software related to the work of a local pastor. Topics include: sound systems, lighting systems, multimedia systems, software for word processing, powerpoint presentations, spreadsheet, and data base, theological software tools, etc.





















# SCHOOL OF SCIENCE & TECHNOLOGY



### SCHOOL OF SCIENCE AND TECHNOLOGY

### **DEAN - Z. Ngalo Otieno-Ayayo**

#### **PHILOSOPHY**

Recognizing that God is the Creator and Sustainer of all nature, we believe that He has endowed us with the ability to understand nature and nature's laws and that it is our duty to use this knowledge in the stewardship of the Earth's resources and in service to God and humankind.

#### **MISSION**

To train our students in the basic sciences and in their technological applications so that, they can better serve God and humanity through the conservation of Earth's resources and through the alleviation of ignorance, poverty, hunger, and disease in East/ Central Africa, and beyond.

#### **VISION**

Through excellence in teaching and research, the School of Science and Technology will produce high-quality graduates, with the requisite technical skills and moral values to provide strong academic, professional and moral leadership within their respective disciplines.

### **OBJECTIVES**

In harmony with the Philosophy, Mission and Vision of the School of Science and Technology our objectives are to:

- Emphasize God as our Creator Sustainer, Source of all knowledge and Restorer of our relation to Himself, and, in turn, our responsibility to worship Him and to be worthy stewards of His beneficence in our service to humankind.
- Recruit and maintain an academically and technically competent and morally sound international faculty who can witness to the Christian principles for which the University stands.
- Admit students from diverse religious and ethnic communities and national backgrounds to provide for that cultural diversity needed for a challenging and stimulating academic environment.
- 4. Provide a service-oriented academic community within which the student can gain knowledge and develop skills, attitudes and values that promote respect for others and encourage a service-oriented philosophy.
- 5. Respond to the needs of the constituent communities by producing highly-qualified graduates, with strong moral

- values, and equipped with current knowledge and skills to make them competitive in the job market.
- 6. Promote those applications and that research, within the various disciplines represented in the School, needed for improving the quality of human life through sustainable development.
- 7. Provide an academic environment that emphasizes current trends and advocates critical-thinking and research.
- 8. Promote freedom of inquiry and expression within the framework Seventh-day Adventist philosophy.
- 9. Provide technical knowledge and transfer technologies to the constituent communities and industry.

### DEGREES AND DIPLOMAS OFFERED BY THE SCHOOL

- 1. Bachelor of Science (BSc) in Agriculture
- 2. Bachelor of Science (BSc) in Agri-Business
- 3. Bachelor of Science in Biology
  - a. Biomedical Option
  - b. Biotechnology Option
  - c. Conservation Biology
  - d. General Biology Option
- 4. Bachelor of Science (BSc) in Chemistry
  - a. Analytical Chemistry
  - b. Biochemistry Option
  - c. General Chemistry
  - d. Industrial Chemistry with Management
- 5. Bachelor of Science (BSc) in Child and Family
- 6. Bachelor of Science (BSc) in Clothing and Textiles
- 7. Bachelor of Science (BSc) in Foods and Nutrition
- 8. Bachelor of Science (BSc) in Nutrition and Dietetics
- 9. Bachelor of Science (BSc) in Mathematics
- 10. Bachelor of Science (BST) in Automotive
- 11. Bachelor of Science (BST) in Electronics
  - a. Communication Option
  - b. Industrial Option

#### **MINORS**

- 1. Minor in Agriculture
- Minor in Biology
- 3. Minor in Chemistry
- 4. Minor in Family and Consumer Science Courses
- 5. Minor in Mathematics
- 6. Minor in Physics

### **DEPARTMENT OF AGRICULTURE**

#### **FACULTY**

Ogutu, P. L. -(Chairperson)

Angwenyi, G. N.

Mairura, C.

Mkandawire, F. L.

Ngalo, S

**Email:** hod agriculture@ueab.ac.ke

#### **PHILOSOPHY**

The Department of Agriculture is structured and operated on the belief that human beings are the custodians of the earth and its environment. Humans, therefore, have the primary responsibility to make a positive contribution to the development of Agriculture, particularly in the areas of resource conservation, food production, poverty alleviation, and environmentally sustainable development. It is our belief that Agriculture is a God instituted activity. Agriculture majors are trained to appreciate the value of the call to till the land, tend livestock, promote sustainable agricultural resource management, promote equity in access to food, alleviate poverty, accelerate economic development and be successful stewards.

#### **MISSION**

The mission of the Department is to promote sustainable Agriculture to prepare students for service to God and mankind.

#### **VISION**

The vision of the Department is to provide the best program in Agriculture in the region.

### **OBJECTIVES**

The Agriculture Department strives to implement the following objectives:

### A. General Objectives

- 1. To inculcate in the students sound knowledge of Agricultural Sciences and natural resource management.
- 2. To prepare students to become competent skilled agricultural managers or entrepreneurs in private and public service.
- 3. To equip students with moral aptitudes for environmental

- conservation, natural resource utilization, and poverty alleviation.
- 4. To prepare students for advanced studies, research and career development.

### **B. Specific Objectives**

- 1. To equip students with agricultural research skills and its practice in society.
- 2. To prepare students for advanced studies, research and career development.
- 3. To prepare students for careers in food production, plantation management, floriculture industry and Agricultural development programmes with Non-Governmental Organisations (NGOs), international organizations and other agri-business sectors.

#### **EXPECTED LEARNING OUTCOME**

A graduate of the Department of Agriculture should be to:

- I. 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 products;
- 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;

- 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.

#### **DEGREES OFFERED BY THE DEPARTMENT**

The following courses are offered in the Department of Agriculture:

- 1. Bachelor of Science in Agriculture (BSc Agriculture)
- 2. Bachelor of Science in Agriculture (Specialization in Animal Science)
- 3. Bachelor of Science in Agriculture (Specialization in Crop and Soil Science)
- 4. Bachelor of Science in Agriculture (Specialization in Horticultural Science)
- 5. Bachelor of Science in Agri-Business (Specialization in Agri-Business)
- 6. Bachelor of Technology in Agriculture (BT Agriculture)
- 7. Minor in Agriculture.
- 8. Specially Designed Programme for BEd Students Qualifying them to Teach Agriculture in Secondary Schools.

#### CAREER OPTION FOR DEGREES IN AGRICULTURE

- I. Public Service:
  - Research Officers KARI (Kenya Agricultural Research Institute)
- Officers in various extension agencies
   Agronomist, Livestock Production, Soil Conservation,
   Agroforestry, Farm Management
- 3. Private Sector;
  - Sectoral Commodity Companies/Agro-Industry, Tea Industry: Agronomy and Factory Management, Coffee Industry, Horticulture, Floriculture, Sugar Factory
- 4. Non-Governmental Organizations (NGO's)
  Project Management Experts
- 5. Academic:
  - Graduate Studies: Soil Science, Animal Science, Agronomy, Agroforestry, Agricultural Extension, Plant Breeding, Animal Breeding, Environmental Science, Developmental Studies, Rural Development.
- 6. Self Employment; Small Business Entrepreneurs

#### **ENTRANCE REQUIREMENTS**

In addition to meeting the minimum University entry requirements, applicants desiring to pursue a Degree Programme in Agriculture must meet the following:

### **Direct Entry**

- Bachelor of Science in Agriculture, Animal, Crop and Soil, and Horticultural Science Options.
   Must pass K.C.S.E. or its equivalent with a minimum grade of C+ in Biology and a C+ in Mathematics, Chemistry, or Physics or C+ in Physical Sciences. UEAB diploma in Agriculture graduates with a C+.
- 2. Bachelor of Science in Agribusiness:

  Must have a C+ average in K.C.S.E. or its equivalent in

  Mathematics or Commerce and any three of the following:

  Biological Science, Chemistry, Physical Science and

  Agriculture.
- 3. Bachelor of Technology in Agriculture
  Must have a C+ average at K.C.S.E. or its equivalent in any
  two of the following: Biological Science, Physical Science,
  Agriculture, Mathematics, Chemistry, and Physics.

#### **INTER-DEPARTMENTAL TRANSFER**

Inter-departmental transfer students should have a minimum of a C+ in either MATH101 and 102 or MATH111 and 112 and a C+ in either BIOL 155 and 156 or CHEM121 and 122.

#### **COURSE DURATION**

The duration of the degree course is four years with a course load of about 18 credits per trimester for those without any transfer credits and attending three regular trimesters per year.

### **GRADUATION REQUIREMENTS**

The minimum number of hours required for graduation is 148 to 150 credits. All other University requirements for graduation apply as well.

#### **BACHELOR OF SCIENCE IN AGRICULTURE**

#### **SUMMARY**

General Education Courses					
Core Courses	76				
Cognates	33				
Electives	4				

Total 152 Credits

# GENERAL EDUCATION COURSE EXEMPTIONS FOR ALL MAJORS PURSUING DEGREES IN AGRICULTURE

Agriculture students are exempted from the following three general education requirement courses:

ECON 201		Introduction to Principles		
		of Economics	2	
SOCI 119		Principles of Sociology	2	
AGRI 105		Principles of		
		Agriculture Technology	2	
AGRI 285		Biostatistics (taken as a core)	3	
	SOCI 119 AGRI 105	SOCI 119 AGRI 105	of Economics SOCI 119 Principles of Sociology AGRI 105 Principles of Agriculture Technology	of Economics 2 SOCI 119 Principles of Sociology 2 AGRI 105 Principles of Agriculture Technology 2

### CORE COURSES FOR BACHELLOR OF SCIENCE IN AGRICULTURE 76 Credits

IN AGRICULTURE 76 Cred			dits
AGEC 345		Agriculture Economics	3
AGEC 413		Management of	
		Agriculture Enterprises	3
AGEN 115		Introduction to Farm	
		Machinery and Mechanization	3
AGRI 101		Crop Production Skills	-
AGRI 102		Animal Production Skills	-
AGRI 108		Introduction to Agriculture	-
AGRI I 16A		Agricultural Ecology	2
AGRI I 16B		Agricultural Ecology (Field Trip)	-
AGRI 23 I		Food Processing Technology	2
AGRI 285		Biostatistics	3
AGRI 325		Proposal Writing Laboratory	1
AGRI 398		Research Project	1
AGRI 433		Agriculture Extension	
		and Rural Sociology	3
AGRI 446		Professional Internship	3
AGRI 499		Agriculture Seminar	1
ANSC 211		Introduction to Animal Science	3
ANSC 323		Animal Breeding	3
Or			

CPSC 324	Plant Breeding	3
ANSC 411	Poultry Science	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 Fertilizers	3
CPSC 314	Crop Production I	3
CPSC 321	Weed Science	3
CPSC 325	Crop Production II	3
CPSC 373	Soil and Water Conservation	2
CPSC 412	Crop Protection	3
HORT 223	Ornamental and	
	Landscape Horticulture	3
HORT 312	Olericulture	3

COGNATE COURSES 33 Cred				
CHEM 121		General Chemistry I	4	
CHEM 122		General Chemistry II	4	
BIOL 155		Foundations of Biology I	4	
BIOL 156		Foundations of Biology II	4	
MATH 101		Precalculus	4	
MATH 102		Basic Calculus	4	
ECON 210		Principles of Micro-Economics	3	
INSY 236		Microcomputer Applications	3	
BIOL 449		Genetics	3	
	CHEM 121 CHEM 122 BIOL 155 BIOL 156 MATH 101 MATH 102 ECON 210 INSY 236	CHEM 121 CHEM 122 BIOL 155 BIOL 156 MATH 101 MATH 102 ECON 210 INSY 236	CHEM 121 General Chemistry I CHEM 122 General Chemistry II BIOL 155 Foundations of Biology I BIOL 156 Foundations of Biology II MATH 101 Precalculus MATH 102 Basic Calculus ECON 210 Principles of Micro-Economics INSY 236 Microcomputer Applications	

ELECTIVE COURSES 4 Credits				
	AGEN 332		Irrigation and Drainage	3
	AGRI 220		Agroforestry	2
	AGRI 295		Resource Survey Methods	3
	AGRI 300		Projects in Agriculture	1
	AGRI 335		Mushroom Production	2
	AGRI 399		Special Topics in ()	1
	AGRI 457		Special Problems in Agriculture	1
	ANSC 227		Artificial Insemination	2
	CPSC 313		Agriculture Chemistry	3
	CPSC 326		Seed Production Technology	3
	CPSC 378		Sustainable and	
			Conservation Agriculture	2
	AGEN 235		Tractor Operations	
			and Maintenance	2

### **BACHELOR OF TECHNOLOGY IN AGRICULTURE**

### **SUMMARY**

General Education Courses	39
Core Courses	72
Cognate Courses	34
Elective Courses	4
Total	149 Credits

#### **GENERAL EDUCATION COURSES 39 Credits**

(Refer to information under Bachelor of Science in Agriculture)

•	CORE COURSES 72 Cred				
	AGEC 413		Management of		
			Agricultural Enterprises	3	
	AGEN 115		Introduction to Farm		
			Machinery and Mechanization	3	
	AGEN 235		Tractor Operations		
			and Maintenance	2	
	AGRI 101		Crop Production Skills	1	
	AGRI 102		Animal Production Skills	1	
	AGRI 108		Introduction to Agriculture	1	
	AGRI I 16A		Agricultural Ecology	2	
	AGRI I 16B		Agricultural Ecology (Field Trip)	1	
	AGRI 23 I		Food Processing Technology	2	
	AGRI 285		Biostatistics	3	

	Agricultural Enterprises	3
AGEN 115	Introduction to Farm	
	Machinery and Mechanization	3
AGEN 235	Tractor Operations	
	and Maintenance	2
AGRI 101	Crop Production Skills	I
AGRI 102	Animal Production Skills	I
AGRI 108	Introduction to Agriculture	I
AGRI I 16A	Agricultural Ecology	2
AGRI I 16B	Agricultural Ecology (Field Trip)	1
AGRI 23 I	Food Processing Technology	2
AGRI 285	Biostatistics	3 2
AGRI 300	Project in Agriculture	
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 499	Agriculture Seminar	-1
ANSC 211	Introduction to Animal Science	3
ANSC 227	Artificial Insemination	2
ANSC 245	Livestock Practicum	1
ANSC 411	Poultry Science	3
ANSC 432	Animal Nutrition and Feeding	4
ANSC 442	Dairy Production	3
CPSC 311	Soil Fertility and Fertilizers	3 3 3 3
CPSC 213	Introduction to oils	3
CPSC 279	Crop Physiology	3
CPSC 314	Crop Production I	3

CPSC 321	Weed Science	3
CPSC 325	Crop Production II	3
CPSC 373	Soil and Water Conservation	2
CPSC 412	Crop Protection	3
HORT 223	Ornamental and	
	Landscape Horticulture	3
HORT 235	Horticulture Practicum	-1
HORT 312	Olericulture	3

COGNATES	CC	DURSES 34 Cre	dits
AUTO 211		Automotive Engines I	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 Microeconomics	3
MATH 101		Precalculus	4
MATH 102		Basic Calculus	4
TCED 141		Engineering Materials	2
MTLS 242		Welding Technology	2

ELECTIVE COURSES 4 Credit					
AGEN 315		Animal Traction Practicum	1		
AUTO 212		Automotive Engines I	3		
AUTO 311		Automotive Diesel	3		
CPSC 326		Seed Production Technology	3		
CPSC 345		Crops Practicum	1		

# BACHELOR OF SCIENCE IN AGRICULTURE (SPECIALIZATION IN ANIMAL SCIENCE)

### **SUMMARY**

General Education Courses	39
Core Courses	32
Specialization in Animal Science	43
Cognates	33
Electives	2

Total 149 Credits

### **CORE COURSES**

3	2	Cı	re	d	its
					_

43 Credits

AGEC 345	Agriculture Economics	3
AGEC 413	Management of	
	Agriculture Enterprises	3
AGEN 115	Introduction to Farm	
	Machinery and Mechanization	3
AGRI 101	Crop Production Skills	1
AGRI108	Introduction to Agriculture	1
AGRI I 16A	Agricultural Ecology	2
AGRI I 16B	Agricultural Ecology (Field Trip)	-1
AGRI 285	Biostatistics	3
AGRI 325	Proposal Writing Laboratory	-1
AGRI 398	Research Project	-1
AGRI 433	Agriculture Extension	
	and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 499	Agriculture Seminar	-1
CPSC 213	Introduction to Soils	3
CPSC 279	Crop Physiology	3

### SPECIALIZATION IN ANIMAL SCIENCE

AGEN 311	Construction of	
	Farm Structures	3
AGRI 102	Animal Production Skills	-1
ANSC 211	Introduction to Animal Science	3
ANSC 222	Ruminant Husbandry	3
ANSC 232	Apiculture	3
ANSC 245	Livestock Practicum	-1
ANSC 300	Processing and Marketing	
	of Animal Products	3
ANSC 310	Aquaculture	3

ANSC 315	Dairy Practicum	1
ANSC 323	Animal Breeding	3
CPSC 333	Pasture and Forage Production	3
ANSC 411	Poultry Science	3
ANSC 421	Reproductive Physiology	
	and Artificial Insemination	3
ANSC 432	Animal Nutrition and Feeding	4
ANSC 442	Dairy Production	3
ANSC 453	Animal Parasitology	
	and Diseases	3

COGNATE COURSES 33 Credi					
	CHEM 121		General Chemistry I	4	
	CHEM 122		General Chemistry II	4	
	BIOL 155		Foundations of Biology I	4	
	BIOL 156		Foundations of Biology II	4	
	MATH 101		Precalculus	4	
	MATH 102		Basic Calculus	4	
	ECON 210		Principles of Micro-Economics	3	
	INSY 236		Microcomputer Applications	3	
	BIOL 449		Genetics	3	

ELECTIVE COURSES 2 Credi				
AGEN 315		Animal Traction Practicum	1	
AGRI 300		Projects in Agriculture	1	
AGRI 399		Special Topics in ()	1	
AGRI 457		Special Problems in Agriculture	1	
CPSC 311		Soil Fertility and Fertilizers	3	
CPSC 314		Crop Production I	3	
CPSC 321		Weed Science	3	
CPSC 373		Soil and Water Conservation	2	
CPSC 412		Crop Protection	3	
HORT 223		Ornamental and		
		Landscape Horticulture	3	
HORT 312		Olericulture	3	

#### BACHELOR OF SCIENCE IN AGRICULTURE (SPECIALIZATION IN CROP AND SOIL SCIENCE)

### **SUMMARY**

General Education Courses	39
Core Courses	30
Specialsation in Crop and Soil Science	44
Cognates	33
Electives	3
Total	149 Credits

CORE COURSES		30 Credits
AGEN 115	Introduction to Farm	
	Machinery and Mechan	ization 3
AGEN 235	Tractor Operations	
	and Maintenance	2
AGEC 345	Agriculture Economics	3
AGEC 413	Management of	
	Agriculture Enterprises	3
AGRI 108	Introduction to Agricult	ure I
AGRI I 16A	Agricultural Ecology	2
AGRI I 16B	Agricultural Ecology (Fie	eld Trip)
AGRI 325	Proposal Writing Labora	atory I
AGRI 285	Biostatistics	3
AGRI 398	Research Project	1
AGRI 433	Agriculture Extension	
	and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 499	Agriculture Seminar	1
HORT 312	Olericulture	3

#### **SPECIALIZATION IN CROP** AND COLL SCIENCE

AND SOIL	AND SOIL SCIENCE 45 Cred				
AGRI 101	Crop Production Skills				
CPSC 213	Introduction to Soil Science	3			
AGRI 23 I	Food Processing Technologies	2			
CPSC 226	Seed Production Technology	3			
CPSC 279	Crop Physiology	3			
CPSC 314	Crop Production I	3			
CPSC 321	Weed Science	3			
CPSC 325	Crop Production II	3			
CPSC 333	Pasture and Forage Production	3			
CPSC 345	Crops Practicum	1			

CPSC 324	Plant Breeding	3
CPSC 311	Soil Fertility and Fertilizers	3
CPSC 373	Soil and Water Conservation	2
CPSC 378	Sustainable and	
	Conservation Agriculture	2
CPSC 411	Soil Management	3
CPSC 412	Crop Protection	3
CPSC 422	Crop Harvesting, Processing,	
	Storage and Marketing	3

### COGNATE COURSES

BIOL 449

COGNATE COURSES 33 Cred				
CHEM 121	General Chemistry I	4		
CHEM 122	General Chemistry II	4		
BIOL 155	Foundations of Biology I	4		
BIOL 156	Foundations of Biology II	4		
MATH 101	Precalculus	4		
MATH 102	Basic Calculus	4		
ECON 210	Principles of Micro-Econom	nics 3		
INSY 236	Microcomputer Application	ns 3		

Genetics

<b>ELECTIVE COURSES</b> 3 Cred		
AGEN 332	Irrigation and Drainage	3
AGRI 220	Agroforestry	2
AGRI 300	Projects in Agriculture	1
AGRI 335	Mushroom Production	2
AGRI 399	Special Topics in ()	1
AGRI 457	Special Problems in Agriculture	1
CPSC 333	Pastures and Forage Crops	3
HORT 223	Ornamental and	
	Landscape Horticulture	3

# BACHELOR OF SCIENCE IN AGRICULTURE (SPECIALIZATION IN HORTICULTURAL SCIENCE)

### **SUMMARY**

General Education Courses	39
Core Courses	37
Specialization in Horticultural Science	43
Cognates	33
Total	151 Credits

<b>CORE COURSE</b>	S	37 Credits

			uits
AGEN 345		Agriculture Economics	3
AGEC 413		Management of	
		Agriculture Enterprises	3
AGEN 115		Introduction to Farm	
		Machinery and Mechanization	3
AGRI 108		Introduction to Agriculture	-1
AGRI I 16A		Agricultural Ecology	2
AGRI I 16B		Agricultural Ecology (Field Trip)	-1
AGRI 285		Biostatistics	3
AGRI 325		Proposal Writing Laboratory	-1
AGRI 398		Research Project	1
AGRI 433		Agriculture Extension	
		and Rural Sociology	3
AGRI 446		Professional Internship	3
AGRI 499		Agriculture Semina	1
CPSC 279		Crop Physiology	3
CPSC 324		Plant Breeding	3
CPSC 314		Crop Production I	3
CPSC 321		Weed Science	3

### **SPECIALIZATION IN HORTICULTURAL**

SCIENCE	43 Cre	dits
AGEN 332	Irrigation and Drainage	3
AGRI 101	Crop Production Skills	1
HORT 113	Fundamentals of Horticulture	3
HORT 210	Greenhouse Crop Management	3
HORT 212	Propagation of	
	Horticulture Plants	3
HORT 235	Horticulture Practicum	1
HORT 245	Vegetable production Practicum	1
HORT 323	Fruits, Nuts and Spices	3
HORT 223	Ornamental and	

Landscape Horticulture	3
Olericulture	3
Floriculture	3
Field Trips	-1
Handling, Processing, Storage	
and Marketing of	
Horticultural Crops	3
Principles of Geographic	
Information Systems	3
Introduction to Soil Science	3
Soil Fertility and Fertilizers	3
Crop Protection	3
	Olericulture Floriculture Field Trips Handling, Processing, Storage and Marketing of Horticultural Crops Principles of Geographic Information Systems Introduction to Soil Science Soil Fertility and Fertilizers

(	COGNATE COURSES 33 Cred			
	CHEM 121		General Chemistry I	4
	CHEM 122		General Chemistry II	4
	BIOL 155		Foundations of Biology I	4
	BIOL 156		Foundations of Biology II	4
	MATH 101		Precalculus	4
	MATH 102		Basic Calculus	4
	ECON 210		Principles of Micro-Economics	3
	INSY 236		Microcomputer Applications	3
	BIOL 449		Genetics	3

### **BACHELOR OF SCIENCE IN AGRI-BUSINESS**

### **SUMMARY**

General Education Courses	39
Core Agriculture Courses	30
Specialization in Agri-Business	55
Cognate courses	30
<del>-</del>	1546

Total 154 Credits

Refer to information under Bachelor of Science in Agriculture for General requirements exemption.

CONE ACINICOLI CINE COORDES 30 Credits	CORE AGRICU	ILTURE COURSES	30 Credits
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AGRI 101	Crop Production Skills	-
AGRI 102	Animal Production Skills	-
AGRI 108	Introduction to Agriculture	-
AGRI I 16A	Agricultural Ecology	2
AGRI I 16B	Agricultural Ecology (Field Trip)	-
AGRI 285	Biostatistics	3
AGRI 325	Proposal Writing Lab	-
AGRI 398	Research Project	-
AGRI 433	Agricultural Extension	
	and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 499	Agriculture Seminar	-
ANSC 211	Introduction to Animal Science	3
CPSC 213	Introduction to Soils	3
CPSC 314	Crop Production I	3
HORT 223	Ornamental	
	and Landscape Horticulture	3

### **SPECIALIZATION IN AGRI-BUSINESS 55 Credits**

AGEC 215	Introduction to Agri-Business	3
AGEC 227	Co-operative Management	3
AGEC 261	Intermediate	
	Microeconomic Theory	3
AGEC 262	Production Economics	
	and Operational Research	3
AGEC 286	Introduction to Econometrics	3
AGEC 290	Mathematical Methods	
	for Agricultural Economists I	3
AGEC 295	Mathematical Methods	
	for Agricultural Economists II	3
AGEC 315	Agricultural Marketing	
	and Price Analysis	3

AGEC 327	International Economics	3
		5
AGEC 330	Personnel Management	
	in Agriculture	3
AGEC 345	Agricultural Economics	3
AGEC 356	Agricultural Policy and Law	3
AGEC 360	Agri-Business Finance	3
AGEC 413	Management	
	of Agricultural Enterprises	3
AGEC 420	Analysis of Agricultural Projects	3
AGEC 445	Farm Management Practicum	1
AGEC 451	Agricultural	
	Entrepreneurship Skills	3
AGEC 455	Agri-Business Management	3
AGEC 470	Economic Development	3

(	COGNATE COURSES 30 Cred				
	ACCT III		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 Microeconomics	3	
	ECON 211		Principles of Macroeconomics	3	
	MATH III		Business Mathematics I	4	
	MATH 112		Business Mathematics II	4	

# UPGRADING COURSE INTO BACHELOR OF SCIENCE IN AGRICULTURE FOR HOLDERS OF DIPLOMA IN AGRICULTURE

#### INTRODUCTION

This programme 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 programme is designed to take two and half to three years at most.

#### **ADMISSION REQUIREMENTS**

Holders of a diploma in agriculture, agri-business or related field must meet the following criteria:

- 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 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.

# GENERAL REQUIREMENTS FOR HOLDERS OF DIPLOMA IN AGRICULTURE 25 Credits

on Loria in Addicoli one 25 credits				
ENGL III		Introduction to Writing Skills I	2	
ENGL 112		Introduction to Writing Skills II	2	
ENGL 113		Speech Communication	2	
FREN 100		Beginning French II	2	
Or				
KISW 108		Introduction to Kiswahili	2	
MGMT 103		Basic Management		
		and Entrepreneurial Skills	2	
OFTE 120		Keyboarding (By placement)0		
EDUC 215		Introduction to Philosophy		
		of Christian Education	2	
INSY 107		Information Technology Today	2	
ENVI 227		Environment and Society	2	
RELB 220		Life and Teachings		
		of Jesus - General	2	
RELH 155		Adventist Heritage	2	
		The state of the s		

RELT 207	Christian Beliefs	3
RELT 255	Introduction to Christian Ethics	2

#### CREDIT TRANSFER

A student who wants to be exempted from some courses offered by the University or receive 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 (plain) in the equivalent course he/she is seeking exemption/credit transfer.

#### **COGNATE COURSES**

Holders of diploma in agriculture will be required to do all cognate courses as outlined under each major.

CORE COURSES EXEMPTIONS 6 Credits				lits
	AGRI 101		Crop production Skills	- [
	AGRI 102		Animal Production Skills	- 1
	AGRI 108		Introduction to Agriculture	- 1
	AGRI I 16A		Agricultural Ecology	2
	AGRI I 16B		Agricultural Ecology (Field Trip)	-1

COURSES FOR CHALLENGE 7 Credits				
	AGEN 115		Introduction to Farm	
			Machinery and Mechanization	3
	AGRI 220		Agroforestry	2
	AGEN 235		Tractor Operations	
			and Maintenance	2

#### **BACHELOR OF SCIENCE IN AGRICULTURE**

#### **SUMMARY**

General Education Courses	25
Core Courses	67
Cognate Courses	33
Elective Courses	6
<del>-</del> .	

Total 131 Credits

CORE COURSES	67 Credits
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CORE COU	RSES 67 Cre	dits
AGEC 345	Agriculture Economics	3
AGEC 413	Management	
	of Agriculture Enterprises	3
AGEN 115	Introduction to Farm	
	Machinery and Mechanization	3
AGRI 23 I	Food Processing Technology	2
AGRI 285	Biostatistics	3
AGRI 325	Proposal Writing Laboratory	1
AGRI 398	Research Project	-1
AGRI 433	Agriculture Extension	
	and Rural Sociology	3
AGRI 446	Professional Internship	3
AGRI 499	Agriculture Seminar	-1
ANSC 211	Introduction to Animal Science	3
ANSC 323	Animal Breeding	3
Or		
ANSC 324	Plant Breeding	3
ANSC 411	Poultry Science	3
ANSC 432	Animal Nutrition and Feeding	3 3 3 3 3
ANSC 442	Dairy Production	3
CPSC 213	Introduction to Soils	3
CPSC 279	Crop Physiology	3
CPSC 311	Soil Fertility and Fertilizers	3
CPSC 314	Crop Production I	3 3 3
CPSC 321	Weed Science	3
CPSC 325	Crop Production II	
CPSC 373	Soil and Water Conservation	2
CPSC 412	Crop Protection	3
HORT 223	Ornamental	2
LIODT 212	and Landscape Horticulture	3
HORT 312	Olericulture	3

COGNATE COURSES 33 Credi					
	CHEM 121		General Chemistry I	4	
	CHEM 122		General Chemistry II	4	
	BIOL 155		Foundations of Biology I	4	
	BIOL 156		Foundations of Biology II	4	
	MATH 101		Precalculus	4	
	MATH 102		Basic Calculus	4	
	ECON 210		Principles of Micro-Economics	3	
	INSY 236		Microcomputer Applications	3	
	BIOL 449		Genetics	3	

ELECTIVE COURSES 8 Credi			lits
AGEN 235		Tractor Operations	
		and Maintenance	2
AGEN 332		Irrigation and Drainage	2
AGRI 220		Agroforestry	2
AGRI 295		Resource Survey Methods	3
AGRI 300		Projects in Agriculture	- 1
AGRI 335		Mushroom Production	2
AGRI 399		Special Topics in ()	- 1
AGRI 457		Special Problems in Agriculture	- 1
ANSC 227		Artificial Insemination	2
CPSC 313		Agriculture Chemistry	3
CPSC 326		Seed Production Technology	3
CPSC 378		Sustainable	
		and Conservation Agriculture	2

# UPGRADING COURSE INTO BACHELOR OF SCIENCE IN AGRI-BUSINESS FOR HOLDERS OF DIPLOMA IN AGRI-BUSINESS

#### **SUMMARY**

General Education Courses	25
Specialization in Agri-Business	55
Core Courses	24
Cognates	30

Total 134 Credits

(	CORE AGRICULTURE COURSES 24 Credits				
	AGRI 285		Biostatistics	3	
	AGRI 325		Proposal Writing Laboratory	1	
	AGRI 398		Research Project	1	
	AGRI 433		Agricultural Extension		
			and Rural Sociology	3	
	AGRI 499		Agriculture Seminar	1	
	ANSC 211		Introduction to Animal Science	3	
	CPSC 213		Introduction to Soils	3	
	CPSC 314		Crop Production I	3	
	HORT 223		Ornamental		
			and Landscape Horticulture	3	
	AGRI 446		Professional Internship	3	

#### **SPECIALIZATION IN AGRI-BUSINESS 55 Credits**

AGEC 215	Introduction to Agri-Business	3
AGEC 227	Co-operative Management	3
AGEC 261	Intermediate	
	Microeconomic Theory	3
AGEC 262	Production Economics	
	and Operational Research	3
AGEC 286	Introduction to Econometrics	3
AGEC 290	Mathematical Methods	
	for Agricultural Economists I	3
AGEC 295	Mathematical Methods	
	for Agricultural Economists II	3
AGEC 315	Agricultural Marketing	3
AGEC 327	International Economics	3
AGEC 330	Personnel Management	
	in Agriculture	3
AGEC 345	Agricultural Economics	3
AGEC 356	Agricultural Policy	3

AGEC 360	Agri-Business Finance	3
AGEC 413	Management	
	of Agricultural Enterprises	3
AGEC 420	Analysis of	
	Agricultural Projects	3
AGEC 445	Farm Management Practicum	-1
AGEC 451	Agricultural	
	Entrepreneurship Skills	3
AGEC 455	Agri-Business Management	3
AGEC 470	Economics Development	3

COGNATE COURSES 30 Credit			dits	
	ACCT III		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 Microeconomics	3
	ECON 211		Principles of Macroeconomics	3
	MATH III		Business Mathematics I	4
	MATH 112		Business Mathematics II	4

# MINOR IN AGRICULTURE CORE COURSES AGEN 115 Introduction to Farm Machinery and Machanization 2

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	3
AGRI 23 I	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	2

<b>ELECTIVE COURSES</b> 6 Cred			
AGEN 235		Tractor Operations	
		and Maintenance	2
AGRI 300		Projects in Agriculture	1
ANSC 227		Artificial Insemination	2
ANSC 411		Poultry Science	3
ANSC442		Dairy Production	3
CPSC 314		Crop Production I	3
CPSC 321		Weed Science	3
CPSC 378		Sustainable	
		and Conservation Agriculture	2
HORT 312		Olericulture	3

# COURSES FOR EDUCATION MAJORS TAKING AGRICULTURE AS A TEACHING SUBJECT

Bachelor of Education students who plan to take agriculture as a teaching subject will be required to do 40 credit hours in agricultural courses for them to qualify.

TOTAL NUI	<b>MB</b> I	ER OF CREDITS 41 Cre	dits
AGRI 101		Crop Production Skills	1
AGRI 102		Animal Production Skills	1
AGRI 108		Introduction to Agriculture	1
AGRI I 16A		Agricultural Ecology	2
AGRI I 16B		Agricultural Ecology (Field Trip)	1
AGEN 115		Introduction to Farm	
		Machinery and Mechanization	3
AGEN 332		Irrigation and Drainage	3
AGEC 345		Agricultural Economics	3
ANSC 211		Introduction to Animal Science	3
ANSC 411		Poultry Science	3
ANSC 442		Dairy Production	3
ANSC 323		Animal Breeding	3
OR			
CPSC 325		Plant Breeding	3
CPSC 213		Introduction to Soils	3
CPSC 314		Crop Production I	3
CPSC 325		Crop Production II	3
CPSC 373		Soil and Water Conservation	2
HORT 312		Olericulture	3

# VOCATIONAL COURSES DESIGNED FOR NON MAJORS

, •		
HORT 104	Ornamental Gardening	2
AGEN 235	Tractor Operations	
	and Maintenance	2
HORT 255	Basic Landscape Design	2

221

#### **COURSE DESCRIPTIONS**

#### **AGRICULTURAL ENGINEERING (AGEN)**

# AGEN 115 Introduction to Farm Machinery and Mechanization 3 Credits

This course covers a wide spectrum of equipment used in the various branches of agriculture such as crops, horticulture, livestock, food or feed handling, storage and processing. Theoretical aspects will include an introduction to the principle of force, work, simple machines, mechanics, power transmission and sources of farm power. Tillage equipment and essential components of the internal combustion engine will also be covered. In addition farm machinery depreciation, cost determinants, machine life, calibration and maintenance will be considered. Two lectures and one two- hour laboratory per week.

# AGEN 235 Tractor Operations and Maintenance 2 Credits

A practicum course designed to teach students the essentials of tractor operations and maintenance. A total of 6 theory and field laboratories are required for this course. Both theory and practical skills will be examined.

# 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, rabbit houses, fishpond, beehives). Factors in the site selection of the farmstead. Materials used in the construction of farm structures. Two lectures and one three-hour laboratory per week.

# AGEN 315 Animal Traction Practicum I 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 proper nutrition for animal draft animals. The acquired skills will be used in the department during the duration of the course. Requires three clock hours per week per credit.

#### **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 laboratory each week. Field trips to be arranged as necessary.

#### **GENERAL AGRICULTURAL COURSES (AGRI)**

# AGRI 105 Principles of Agricultural Technologies 2 Credits

The course is designed to create awareness in the importance, influence and contribution of agriculture to human development. The student will acquire both theoretical and practical skills essential for food production and food security. The course is open to all non agricultural majors.

# AGRI 108 Introduction to Agriculture I Credit

Introduction to modern agricultural systems, their evolution and history. Considers elements of agriculture, agricultural development and its contribution to national economic development and food security especially in tropical Africa.

#### AGRI 116A Agricultural Ecology 2 Credits

The study of primary ecological zones, their characteristics, identifying marks and common land use systems and human activities

# AGRI 116B Agricultural Ecology (Field Trip) I Credit

Field study of important ecological sites, Agricultural practices, Human settlement and identification of common Fauna and Flora and preparation of a herbarium. Students will pay a fee to meet the coat of a 2-3 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 crop land, range land, water ways, 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 227 Cooperative Management 3 Credits

This course covers topics dealing with the concept of cooperatives, history, principles and practices in cooperative management and how these relate to agribusiness especially for rural communities. Three lectures per week.

# AGRI 231 Food Processing Technology 2 Credits

This is a hand-on course to introduce students to the production of value-added products from raw Agricultural materials. This may include techniques in oil extraction, cheese making, 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. This is a practical course that is designed to be taught in one lecture hour per week. A one three hour laboratory per week will be arranged as necessary.

#### AGRI 285 Biostatistics 3 Credits

A basic course in biostatistics covering: Probability, probability distribution, descriptive and inferential statistics, normal distribution, sampling, t and f distributions, estimation and test of hypothesis and chi-square. The course will also cover: Experimental designs, data tabulation, analysis of variance, tests, mean separation, transformation, linear correlation and regression. Two lectures and one three-hour laboratory each week. **Prerequisite: MATH 101 or MATH 111.** 

## 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 programmes. 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.

#### AGRI 300 Project in Agriculture | | Credit

This is independent study or individual guided project/work in a chosen area or field of Agriculture under the direction of an instructor. A comprehensive study or project report which exhibits scholarship, skill and knowledge is required. It is expected that, during the semester, a student will spend at least 48 clock hours per credit working on his or her own project. Prerequisites: Senior standing in Agriculture and departmental approval

# AGRI 325 Proposal Writing Laboratory | I Credit

The focus of this course deals with exercises in writing, criticizing and developing proposals. 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. **Prerequisites: AGRI 285 and ENGL III.** 

#### AGRI 335 Mushroom Production 2 Credits

A practical skills oriented course on mushroom cultivation. Topics include: Mushroom culture, spawns and substrates, environmental factors for the crop cultivation problems and solutions, processing and marketing of mushrooms. Lectures and laboratories to be arranged by the instructor.

#### AGRI 398 Research Project I Credit

The course deals with the implementation through completion of the research project that was proposed while completing AGRI 325 Proposal Writing Laboratory. This course is designed and instructed so that the student shall demonstrate ability to carry out field research independently. This course must be repeated until the project is completed. The student shall be under guidance of an Instructor/advisor. One credit will be counted towards the degree requirements. A fee will be charged to cover cost of research materials. **Prerequisite: AGRI 325.** 

#### AGRI 399 Special Topics in (......) I Credit

A course on a topic that is of current interest, but is not covered by an established course. **Prerequisite: Department approval.** 

# AGRI 433 Agricultural Extension and Rural Sociology 3 Credits

The study of Agricultural extension as an educational process facilitated by fact finding, needs identification, conducting surveys and utilizing their results in developing extension programmes. The principles, impact and influence of sociology, social systems, cooperative management, food production and agricultural development will be covered. Three lectures each week. Field trips and labs are arranged as appropriate.

#### AGRI 446 Professional Internship 3 Credits

A carefully planned programme providing professional training and practice at a commercial farm or enterprise. A faculty member and the Farm Manager/Operator will supervise the work activities. A minimum of eight weeks of full time work is required. This is a laboratory course. The student will meet transport costs of supervision.

# AGRI 457 Special Problems in Agriculture I Credit

Individual research work in some field of Agriculture under the direction of members of staff.

#### AGRI 499 Agriculture Seminar | | 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: Completion of a research project and at least one credit of AGRI 398.** 

#### **ANIMAL SCIENCE COURSES (ANSC)**

### ANSC 211 Introduction to Animal Science

An introduction to livestock industries. origin, development characteristics and improvement of cattle, sheep, goats, horses, donkeys and camels as well as poultry. Two lectures and one three-hour laboratory each week. **Prerequisite: BIOL 155.** 

3 Credits

#### ANSC 222 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. Two lectures and one three-hour laboratory each week.

# ANSC 227 Artificial Insemination (A.I.) 2 Credits

This is a hands-on course covering general livestock improvement through increased use of outstanding sires to enhance production potential and to control diseases transmitted through natural service. Emphasis will be on developing skills in artificial insemination. One lecture and one three-hour lab section to arranged.

#### 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 245 Livestock Practicum | | Credit

In this course, the student will develop skills necessary to handle, care for and manage farm livestock. The student may also become involved in the processing of livestock products such as eggs or milk and be exposed to proper techniques for the storage and handling of manure. Training will be confined to one phase of livestock enterprise per quarter, although various phases of the same enterprise may be allowed in different quarters (i.e. poultry, dairy, sheep and goats). Requires three clock hours per week. **Prerequisite: Sophomore standing or Department approval.** 

# 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. Techniques of culture fisheries, their 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 one three-hour laboratory per week.

#### ANSC 315 Dairy Practicum I 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 proper 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 323 Animal Breeding 3 Credits

This course deals with qualitative and quantitative inheritance, quantitative variations in breeding, relationships, heritability, sire testing, genetic selection, cross breeding as basis for livestock improvement and biotechnology application to animal breeding. Two lectures and one three-hour laboratory each week. **Prerequisite: BIOL 449.** 

#### ANSC 411 Poultry Science 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 needed. **Prerequisite: ANSC 211.** 

# ANSC 421 Reproductive Physiology and Artificial Insemination (A.I.) 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. Two lectures and one three-hour lab each week.

# ANSC 432 Animal Nutrition and Feeding

3 Credits

This course covers: The nutritional requirements of different animal classes, evaluation of animal feeds and feeding methods, classification of feeds, feed intake, ration formulation and its relationship to efficient livestock production. Three lectures and one three-hour laboratory per week. **Prerequisite: ANSC 211.** 

#### ANSC 442 Dairy Production 3 Credits

This course covers: The basic principles of dairy production, including, feeding, breeding, milking, record keeping, disease control and other basic management tools. Demonstrations and hands-on activities in management aspects of efficient, clean milk production and processing are also covered in this course. Field visits to nearby dairies will be arranged. Two lectures and one three-hour laboratory per week. **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, helminthes and ecto-parasites. Life cycles 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. Two lectures and one three-hour laboratory per week.

#### **CROP AND SOIL SCIENCE COURSES (CPSC)**

#### CPSC 279 Crop Physiology 3 Credits

A study of metabolism, seeds and germination, transport and partitioning, energy and photosynthesis, basis of crop production efficiency, water relations, mineral nutrition, growth and development and hormonal control in plants. Also covers: competitive plant responses and use of plant growth regulators in agricultural crops, adaptations to the environment. Two lectures and one three-hour laboratory each week. **Prerequisite: BIOL 155.** 

#### **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, soil origins, formation, classification systems and reaction that influence nutrient availability. Two lectures and one three-hour laboratory each week. **Prerequisites: CHEM 122 and AGRI 101.** 

# CPSC 311 Soil Fertility and Fertilizers 3 Credits

This course covers soil factors which alter the supply and availability of micro and macro nutrients to plants are studied in relation to crop productivity. Soils and the habitat. Soil tests will be carried out. Two lectures and one three-hour laboratory each week. **Prerequisite: CPSC 213.** 

#### **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-catalyzed 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 colorimetry, atomic absorption procedures, as well as, analysis involving colorimetry, atomic absorption spectrophometry and flame photometry. Two lectures and one three-hour lab each week. **Prerequisite: CHEM 122.** 

#### CPSC 314 Crop Production I 3 Credits

The emphasis of this course will be given to: The role of biotechnology in crop production of selected cereals, grains and fibres of economic importance covered in the light of their ecology, origin, characteristics, distribution, economic importance and agronomy. Two lectures and one three-hour laboratory each week.

#### 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 evolution of new weeds, weed resistance, weed population shifts and hybridization. Consequences of the indiscriminate use of chemical herbicides, the use of bio- control agents, bio-herbicides and crop-weed interactions, shall be considered. Laboratories shall involve calculations on rates of herbicides, mechanisms of weed dispersal in space and time, calibration, maintenance and repair of sprayers and the collection of a herbarium of common weeds. Two lectures and one three-hour laboratory each week. **Prerequisite: CHEM 122.** 

#### CPSC 325 Crop Production II 3 Credits

This course is a continuation of CPSC 314, however emphasis is laid on: History, agronomy, distribution, economic importance and processing annual and perennial crops of industrial value selected from beverages, tubers, fibres, fruits, latex, nuts, tannin, pyrethroids and oil producers. Two lectures and one three-hour laboratory each week. *Prerequisite: CPSC 314*.

#### CPSC 324 Plant Breeding 3 Credits

A study of the Principles of Plant Genetics and their practical application to the improvement of crops. Two lectures each week. Laboratories to be arranged as necessary. **Prerequisite: BIOL 449.** 

# 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. Two lectures and one three-hour lab each week. **Prerequisite: CPSC 314.** 

#### CPSC 330 Plant Tissue Culture 2 Credits

The course deals with principles, techniques and applications of tissue culture. Lectures and hands-on laboratories including aseptic techniques, culture methodology, laboratory equipment, micropropagation, callus and embryogenesis. Two lectures each week. Laboratory to be arranged as necessary.

# 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 grasslegume mixtures are studied. Two lectures and one three-hour laboratory each week.

#### CPSC 345 Crops Practicum | I Credit

This course is designed to provide the student with an opportunity to gain crop production skills. The specific practical activities may be in such areas as, seed bed preparation, planting, disease control, fertilizer application, pest control, harvesting, storage and processing. The student must do these proactively. A plot of land will be designed to the student who will be responsible for all the operations therein. 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 and pasture grasses. Requires three clock hours per week.

# CPSC 373 Soil and Water Conservation 2 Credits

This course covers: Surveying and surveying equipment's, agents of soil erosion processes, problems and control strategies and the application of Universal Soil Loss Equation (USLE). Land capability classes, methods of soil and water conservation such as biological and the construction of physical structures will be considered. A student project will be required. Field work and visits as necessary. **Prerequisite: CPSC 311.** 

# CPSC 378 Sustainable and Conservation Agriculture 2 Credits

This course is designed to provide the student with theories, principles and techniques to sustainable agriculture in order to meet current needs in farming by producing high crop yields while reducing production costs, maintaining soil fertility and conserving water. Principles of conservation and sustainable agriculture such as no till, soil cover, mixing of crops and any method which is aimed at helping the world move towards the preservation of our natural resources and the maintenance of the delicate balance of our ecosystem will be considered. Two lectures and laboratory to be arranged.

#### CPSC 401 Cropping Systems 3 Credits

This course deals with the integration and synthesis of agronomic and related concepts in agricultural cropping systems. Problem solving and application of information.

#### 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. Two lectures and one three-hour laboratory each week. **Prerequisite: CPSC 311.** 

#### CPSC 412 Crop Protection 3 Credits

A course dealing with identification of various crop diseases and their control, The growth, reproduction, identification, isolation of plant pathogenic bacteria and fungi. Pest of major Agricultural importance and their control will also be covered. Two lectures and one three-hour laboratory each week.

#### CPSC 422 Crop Harvesting, Processing, Storage and Marketing 3 Credits

The course covers handling of crops harvesting to production of saleable products. Two lectures per week and one three-hour laboratory.

#### **HORTICULTURAL SCIENCE COURSES (HORT)**

#### HORT 102 Organic Farming 2 Credits

The course covers sustainable intensive organic farming methods such as compost making, use of organic manure in crop production, intensive farming techniques such as conventional, double digging, vertical or multi-storey garden, nine-plants per hole, mandala bed etc. One hour lecture and three-hour laboratory each week.

#### HORT 104 Ornamental Gardening 2 Credits

The course covers propagation, identification and production of ornamental plants, indoor and outdoor landscaping. One hour lecture and three-hour lab each week.

# HORT 113 Fundamentals of Horticulture

orticulture 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 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 212 Propagation of Horticulture Plants 3 Credits

The course deals with the principles of plant propagation by seed, cuttings, layering, grafting, scion, and stalk relationships; stalks for fruit and ornamental plants. Practices employed by greenhouses and nursery operations in propagation of plants.

# HORT 223 Ornamental and Landscape Horticulture 3 Credits

The study of plants that are prized for their beauty. The use of these plants along with other objects to produce pleasing landscapes and plantscapes. The propagation, culture, growth, judging and marketing of flowers and shrubs will also be covered. Laboratory exercises cover landscaping, indoor decorations, propagation of plant materials and plant terraniums. Two lectures and one two-hour laboratory each week. At least one field trip will be arranged.

#### **HORT 235** Horticulture Practicum | Credit

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 Vegetable Production Practicum I Credit

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 255** Basic Landscape Design 2 Credits

Lawn and vegetable garden care, elementary landscape design principles. Designed to be a practical course for non majors. One two-hour lecture and one two hour lab alternating weeks.

#### 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, Salanaceous, leaf, curcubit, 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. Three lectures and one three hour laboratory each week. **Prerequisite: Junior standing.** 

#### HORT 318 Floriculture 3 Credits

This course provide 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. Two lecture hours and one three hour lab.

# HORT 323 Fruits, Nuts and Spices (Pomology) 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 Field Trips I 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 and Storage of Horticulture 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

#### **AGRI-BUSINESS COURSES (AGEC)**

# AGEC 215 Introduction to Agri-business 3 Credits

This course covers the fundamentals of agribusiness including: Concepts and tools of agribusiness, the structure of agribusiness, goals, strategies, objectives, plans, targets 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. **Prerequisites: Sophomore standing in Agriculture and Departmental approval.** 

# AGEC 22 Cooperative Management 3 Credits

This course deals with the definition and philosophies of cooperation; cooperative principles, organization and structure, operations and management, contributions to the national economy, cooperative performance, management problems and the role of government in cooperative development. Three lecture hours per week.

# 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 Operations 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 product, average product, marginal product, 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 product, factor-factor, factor-product product technological change; correlation analysis techniques, simple linear programming solutions, simplex methods, econometrics and economic theory; maximizing versus minimizing techniques; dummy variable; forecasting models. Three lecture hours per week

# AGEC 286 Introduction to Econometrics

3 Credits

The topics to be covered in this course include: definition, scope and divisions of econometrics, 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, multicolinearity and errors in variable, introduction to simultaneous equations in econometrics, 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, multocollinearity, and errors in variables, the use of simultaneous equations, models in econometric analysis, the problem of identification in econometrics. Three lecture hours per week.

# AGEC 290 Mathematical 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 III and MATH 112.** 

# AGEC 295 Mathematical 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 softwares, linear programming using a graphic approach and the simplex algorithm. Three lecture hours per week. **Prerequisite: AGEC** 290.

# AGEC 315 Agricultural Marketing and Price Analysis 3 Credits

Topics covered under this course include: The marketing concept of marketing approaches, the marketing mix, future markets, product planning and role of marketing in the economy and in development, organization of agricultural marketing, advertising and public relations, sales promotion and physical distribution of agricultural products, commodity marketing, stock and commodity exchange, analysis of supply and demand and elasticities of some named agricultural commodities and, role of marketing in economic development. Price policy interventions, impact of price changes on markets and marketing. The course will also cover price analysis system in Kenya, the macroeconomic impact of agricultural price changes and the limits of price analysis. Three lectures per week. **Prerequisite: ECON 210.** 

# 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 polices, 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 the role of personnel/manpower management, the concept and evolution of personnel management, manpower requirement, selection and recruitment, employee training and managerial development, the human factor in employment and concepts of industrial relations and human relations, the remuneration and welfare aspects and labour relations. Three lecture hours per week.

#### AGEC 345 Agricultural Economics 3 Credits

The course covers the economics of agricultural production and trade, including population and food policies. Topics include; the role of Agriculture in economic development, theory of Agricultural production, farm planning control, Agricultural marketing and international trade in Agriculture, and Food policies and food security in less developed economies. Three lecture hours each week. **Prerequisites: ECON 210 and Junior standing in Agriculture Department.** 

# AGEC 356 Agricultural Policy and Business Law 3 Credits

The course covers basic elements of strategic planning, analytical sequence for problem solving, and sensitivity analysis. Other topics include: agricultural sector policies, production policy, marketing policy, agribusiness development planning, resource use and financing policies, multinationals and developing countries, agribusiness and economic development. Foundations of Agrarian law; the development of land use law; the development of property law; aspects of Land Control Act; Aspects of the Agricultural Act; aspects of the Agricultural Finance Act; a lot of emphasis will be on the Agricultural Act and some Basics of the Contract Act. Three-lectures per week. **Prerequisites: AGEC 215 and Junior standing in Agriculture Department.** 

#### AGEC 360 Agri-Business 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: AGEC 345.** 

# AGEC 413 Management of Agricultural Enterprises 3 Credits

The course deals with the organization and management of agricultural enterprises including production units, power and equipment, use of records, marketing and other factors affecting management and the attainment of maximum yields and profits. Two-lectures and one three-hour laboratory per week.

# AGEC 420 Analysis of Agricultural Projects 3 Credits

The course introduces the student to the concept of an Agricultural development project, preparation and financing of project costs and benefits and other measures of project worth. Using case studies, simple farm income analysis will also be covered. Three lectures per week. Lab to be arranged as necessary.

# AGEC 445 Farm Management Practicum I Credit

Areas of emphasis for this course include: Hands-on experience in the management of production units, power and equipment, records and marketing. At least two clock hours per week are required per credit. *Prerequisite: ECON 210 or Senior standing in Agriculture Department.* 

# AGEC 45 I Agricultural Entrepreneurship 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 Agri- Business 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 microbusiness; strategic development in Agribusiness. Three-lectures per week.

# AGEC 470 Economics 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, international economic issues, 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, technology and resource endowment, strategies for agricultural development, technology and innovation, the green revolution, the uni-model and bi-model approach, the institutional frame work and case studies. Three lecture hours per week.

#### **DEPARTMENT OF BIOLOGICAL SCIENCES**

#### **FACULTY**

Ramesh, F. -Chairperson

Amimo, F.

Gracelyn, A.

Munyikombo, W.

Ojunga, M.

Oteng'o, A.

Otieno-Ayayo, Z. N.

Poblete, G. Were, I.

Email: biology@ueab.ac.ke

#### **PHILOSOPHY**

God is the Creator and Sustainer of life and of the natural world. As intelligent stewards, humans need to understand life, its unity, diversity and its distribution in space and time, and act responsibly in its utilization and preservation.

#### **MISSION**

The mission of the Department of Biological Sciences is to train students in understanding life and its interactions at all levels-from biomolecules to the biosphere.

#### **VISION**

Our vision is that irrespective of whether students take only a single course or complete a degree in the department, they will become knowledgeable about, and feel a responsibility towards life.

#### PROGRAMMES OFFERED IN THE DEPARTMENT

- 1. Bachelor of Science in Biology (BSc. Biology) General Biology Option.
- 2. Bachelor of Science in Biology (BSc. Biology) Biomedical Option.
- 3. Bachelor of Science in Biology (BSc. Biology) Biotechnology Option.
- 4. Bachelor of Science in Biology (BSc. Biology) Conservation Biology Option.
- 5. Minor in Biology

#### **CAREER OPPORTUNITIES**

The various programmes in Biological Sciences provide students with a wide range of career opportunities as follows:

- 1. The 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 longterm goals.
- 2. The Biomedical Option is for students interested in pursuing careers in medical research, medicine and associated disciplines.
- 3. Biotechnology Option is for students interested in pursuing carriers in research institutions, health care, drug manufacturing, agricultural, food processing, bio informatics, pharma sectors and agencies involved in biotechnology. It also presents an opportunities for students to advance in studies in this area.
- Conservation Biology Option. This option is for those students interested in field biology and in working for the national parks system or other governmental or nongovernmental agencies involved in conservation and field research activities.

Any of the undergraduate options can be completed in four academic years. Although a minor is strongly recommended it is not required for any of the options. However, the student is required to take additional electives if necessary to make a total of 134 credits required for graduation.

#### **EXPECTED LEARNING OUTCOME**

The Biology programmes are designed to:

- Assist the students in developing a conceptual framework within which to deal with philosophical issues relating to the unity and diversity of life.
- b) Equip the students with positive attitudes towards an appreciation for the natural world including respect for its biotic and abiotic components.

- c) Provide students with adequate technical and practical skills through well-designed laboratory practicals, and field/industrial attachment programmes that will make them competent practitioners of Biology.
- d) Prepare students for careers in diverse fields such as teaching, research, bio-diversity conservation, biomedical science and environmental studies.
- e) Equip the students with the knowledge, skills and aptitude for postgraduate studies and professional development.
- f) Develop in students the ability to think objectively, and to collect, analyse and draw valid conclusions from scientific data.

#### **ENTRANCE REQUIREMENTS**

#### **Direct Entry**

A student wishing to be admitted into any of the Biology programme options 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	В
C.	Physics	C+
d.	Geography	C+

#### **Interdepartmental Transfer**

Students admitted into other degree programmes but wishing to enter one of the Biology programme options can do an interdepartmental transfer into Biology provided they have an average minimum grade of C+ in MATH 101 and MATH 102 with neither grade less than a C-. In addition an average grade of C+ is required in the Foundations of Biology series (BIOL155 and 156) with no grade less than a C-.

#### **REQUIREMENTS FOR GRADUATION**

- 1. A minimum of 134 credits with an overall GPA of at least 2.00.
- 2. A total of at least 58 credits in Biology with no grade less than a C- in all major courses and an overall major GPA of at least 2.25.
- 3. An overall cognate GPA of 2.00 with no grade less than C-.

#### **BACHELOR OF SCIENCE IN BIOLOGY**

#### **SUMMARY**

General Education Courses	40
Core Courses	38
Concentration	24
Cognates for all Options	41
Electives	6
Total	149 Credits

#### GENERAL EDUCATION COURSES 40 Credits

See the General Education section of this bulletin for details. Biology majors are not required to take PHYS 105 and BIOL 105.

#### CORE COURSES

#### 38 Credits

BIOL 151	Foundations of Biology I	3
BIOL 152	Foundations of Biology II	3
BIOL 153	Foundations of Biology III	3
BIOL 176	Introduction to Microbiology	3
BIOL 246	Introduction to Biotechnology	3
BIOL 286	General Ecology	3
BIOL 293	Cell Biology	3
BIOL 296	History and Philosophy of Biology	3
BIOL 447	Molecular Biology	3
BIOL 449	Genetics	3
BIOL 451	Biology Seminar I	2
BIOL 452	Biology Seminar II	2
BIOL 484	Biology Practicum	4

#### COGNATES FOR ALL OPTIONS 41 Credits

AGRI 285	Biostatistics	3
MATH 101	Precalculus	3
MATH 102	Basic Calculus	3
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 300	Introductory Biochemistry	3
CHEM 310	Biochemistry for Life Sciences	4
CHEM 326	Bioinformatics	3
PHYS 151	General Physics I	3
PHYS 152	General Physics II	3

#### I. GENERAL BIOLOGY OPTION 24 Credits

At least two upper-division courses must be selected from each of the following groups:

#### **GROUP A**

(ENVIRONMENTAL BIOLOGY) 6 Credits				
BIOL 200	Natural History of Kenya	3		
BIOL 315	Introduction to Marine Biology	3		
BIOL 344	Hydrobiology	3		
<b>BOTN 374</b>	Systematic Botany	3		
<b>ZOOL 322</b>	Invertebrate Zoology	3		
<b>ZOOL 333</b>	Ichthyology	3		
<b>ZOOL 334</b>	Herpetology	3		
<b>ZOOL 336</b>	Ornithology	3		
<b>ZOOL 338</b>	Mammalogy	3		
ZOOL 342	Entomology	3		

#### **GROUP B**

(MORPHOLOGICAL BIOLOGY) 6 Credit						
	<b>BOTN 320</b>		Plant Anatomy	3		
	ZOOL 310		Comparative Vertebrate Anatomy	3		
	ZOOL 365		Histology	3		
	ZOOL 396		Mammalian Anatomy	3		
	ZOOL 448		Developmental Biology	3		

# GROUP C (FUNCTIONAL BIOLOGY)

BIOL 460	Immunology	3
<b>BOTN 432</b>	Plant Physiology	3
ZOOL 384	Animal Behaviour	3
ZOOL 464	Systems Physiology	4

At least TWO of these courses must have a BOTN prefix and at least TWO must have a ZOOL prefix. Students to select at least 6 credit hours from any of the three groups to make up for the remaining credits.

**6 Credits** 

#### 2. BIOMEDICAL OPTION

24 Credits

Select at least six courses from the following list:

BIOL 396	Human Anat	omy	3
BIOL 397	Human Phys	siology	3
BIOL 460	Immunology		3
BIOL 476	General Micr	robiology	3
ZOOL 310	Comparative	e Vertebrate Anatomy	3
<b>ZOOL 325</b>	Parasitology		3
ZOOL 342	Entomology		3
ZOOL 365	Histology		3
ZOOL 396	Mammalian A	Anatomy	3
ZOOL 448	Developmen	ntal Biology	3
ZOOL 464	Systems Phys	siology	4

In addition, at least one ZOOL course from Group A (Environmental Biology) is required and at least one BOTN course (from any group) is required. Select additional upper division courses to make up 24 elective credits for this option. (See Course description for course).

BIOL 397 Human Anatomy and BIOL398 Human Physiology are recommended for those intending to pursue medicine.

#### 3. BIOTECHNOLOGY OPTION 24 Credits

All students in this option must take all courses from the following list:

BIOT 330	Environmental Biotechnology	3
BIOT 334	Plant Biotechnology	3
BIOT 335	Animal Biotechnology	3
BIOT 451	Microbial Biotechnology	3
BIOT 453	Recombinant DNA Technology	3
BIOT 455	Biotechnology in Agriculture	
	and Health	3

In addition, at least one ZOOL course from Group B (Morphological Biology) is required and at least one BOTN course (from Group A or C) is required. Select additional upper division courses to make up 24 elective credits for this option. (See Course description for course).

#### 4. CONSERVATION BIOLOGY OPTION 24 Credits

All students in this option must take BIOL 374 Conservation Biology. In addition they will select at least six other upper division courses from the following list:

BIOL 344	Hydrobiology	3
<b>BOTN 374</b>	Systematic Botany	3
ZOOL 333	Ichthyology	3
<b>ZOOL 336</b>	Ornithology	3
<b>ZOOL 338</b>	Mammalogy	3
ZOOL 342	Entomology	3
ZOOL 384	Animal Behavior	3
ZOOL 464	Systems Physiology	4

In addition select at least one course from Group B (Morphological Biology) and at least one course of all the courses taken must have a BOTN and BIOL prefix.

<b>ELECTIVE COURSES</b> 6 Cred				
BIOL 250		Introduction to Biosafety		3
BIOL 401		Topics in Biology		3
BIOL 476		General Microbiology		3
BIOL 484		Biology Practicum		4
BIOL 495		Independent Research		
ZOOL 325		Parasitology		3
CLSC 441		Hematology		3
CLSC 452		Clinical Virology		3
PHEP 100		Principles of Epidemiology		3
PHHC 290		Community Health		
		and Diagnosis		3

5. MINOR IN BIOLOGI 25 Credits					
BIOL 151		Foundations of Biology I	3		
BIOL 152		Foundations of Biology II	3		
BIOL 153		Foundations of Biology III	3		
BIOL 296		History and Philosophy			
		of Riology	3		

In addition, select a minimum of 12 credits from any option with at least one course with a BIOL prefix, one with a BOTN prefix and one with a ZOOL prefix to make up a total of 23 credits for the minor.

#### **COURSE DESCRIPTION**

#### 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. 2 lecture hours each week.

# BIOL III Human Anatomy and Physiology I 4 Credits

This is the first part of a course designed primarily for students majoring in Nursing and health-related professions. This course is a systematic approach to the integrated study of human anatomy and physiology with emphasis placed on physiology. The first term covers organization of the human body, cells and tissues, skeletal system, muscular system, nervous system and endocrine system. 3 lecture hours and 1 three-hour laboratory each week.

# BIOL 112 Human Anatomy and Physiology II 4 Credits

This is the second part of the introductory course in human anatomy and physiology designed for students majoring in nursing and health-related professions. Areas covered include the circulatory system, respiratory system, digestive system, urinary system, reproductive system and the immune system. 3 lecture hours and 1 three-hour laboratory each week. **Prerequisite: BIOL 111.** 

# BIOL 115 Basic Medical Microbiology 4 Credits

This course is designed primarily for students in nursing and healthrelated professions. Topics covered include history, morphology, classification, control, growth, transmission and pathogenicity of selected bacteria, viruses, rickettsias, fungi and parasites. 3 lecture hours and 2 two-hour laboratories each week. **Pre-requisites: BIOL 111 and BIOL 112.** 

#### BIOL 128 Bird Watching I Credit

A laboratory and field study of the local Kenyan birds. One three or four hour laboratory/field- trip per week. Open to all interested in birds except those who have completed a course in ornithology.

# BIOL 145 Natural History for Primary School School Teachers 3 Credits

A survey of the natural history of Kenya. The identification and naming of the common fauna and flora of Kenya will be emphasized. The habits, habitats and other aspects of the ecology of the fauna and flora will also be studied. One or more overnight field trips may be required. 3 lecture hours and I three-hour laboratory each week.

# BIOL 150 Introduction to the Natural History of Kenya 2 Credits

A study of the plants, animals, geology, topography and climate of Kenya. It includes a study of the distribution of and interrelations between these biotic and abiotic factors in various regions of the country. This is a field course that involves camping and extensive travel which includes visits to several Kenyan national parks and game reserves. A field course fee will be charged.

# 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 the biological sciences and agriculture. The course explores some major areas of Biology including the Chemistry of life, cell biology, genetics, protein synthesis. 2 lecture hours and 1 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. 2 lecture hours and I three-hour laboratory each week. **Pre-requisite: 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. 2 lecture hours and I three-hour laboratory each week. **Pre-requisite: BIOL 152.** 

# BIOL 176 Introduction to Microbiology 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 lab skills. 2 lecture hours and 1 three-hour laboratory each week.

# BIOL 200 Natural History of Kenya 3 Credits

A study of the plants, animals, geology, topography and climate of Kenya. It includes a study of the distribution of and interrelations between these biotic and abiotic factors in various regions of the country. An ecological paper including the taxonomy, life history, distribution and behaviour of select animal groups is mandatory. This is a field course that involves camping and extensive travel to several Kenyan national parks and game reserves. A field course fee will be charged. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

# BIOL 246 Introduction to Biotechnology 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. This course emphasizes basic laboratory skills essential for beginning level employment in clinical, pharmaceutical and biotechnology laboratories. This course is well suited to students in all majors programs. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

# BIOL 250 Introduction to Biosafety

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 biocontainment, personal protective equipment, safety equipment in the laboratory and management practices aimed at mitigating the risks associated with working with biohazardous agents. Special attention will be given to genetically engineered products. Three lecture hours every week.

3 Credits

#### 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. 2 lecture hours and 1 three-hour laboratory (including field projects) each week. **Prerequisites: BIOL 151, BIOL 152 and BIOL 153.** 

# BIOL 290 Fundamentals of Cell and Molecular Biology 4 Credits

This course is designed for non-biology students in the health sciences. Information from chemistry, biophysics, electron microscopy and molecular biology are integrated to present the cell as a functional unit. Topics covered include plasma membrane organization, membrane transport, nerve and muscle physiology, mechanisms of hormone action, bioenergetics, metabolism, cytoskeleton, nucleic acid structure and function, DNA replication, transcription, translation, mutations and DNA repair mechanisms, regulation of gene expression and recombinant DNA technology. Techniques used in cell biology include electrophoresis, chromatography, centrifugation, microscopy, western blot, PCR and ELISA. 3 one-hour lectures and I three-hour laboratory each week. **Pre-requisites: BIOL 152 and CHEM 113.** 

#### 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. Techniques used in cell biology include electrophoresis and chromatography. 2 lecture hours and I three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152, BIOL 153 and CHEM 122; CHEM 212 is recommended.** 

# 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. Two lecture hours each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

# BIOL 315 Introduction to Marine Biology 3 Credits

An introduction to the biology of the marine environment. This course includes a discussion of the physical and chemical aspects of the marine environment, a survey of marine plants and animals and an emphasis on the ecology of marine organisms. Various marine environments are considered. Physical and biological factors are studied in relation to the distribution of marine organisms. Laboratory and field work (in coastal areas) consists primarily of the study of the classification and ecology of marine organisms. A field course fee will be charged. 2 lecture hours and 1 three-hour laboratory each week. *Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.* 

#### BIOL 344 Hydrobiology 3 Credits

This course provides a study of fresh water ecosystems. Topics include the physical-chemical properties of water, the abundance, distribution and role of water in the biosphere, the classification and ecology of aquatic organisms, and plankton and productivity of fresh water ecosystems. 2 lecture hours and I three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### BIOL 374 Conservation Biology 3 Credits

This course provides a sound understanding of the principles and practices of conservation biology. Conservation strategies are discussed and explored at different levels: local, national, and international. Challenges to conservation of biological diversity are considered. Strategies of restoring degraded ecosystems (e.g., forests, grasslands and wetlands) are included. Intensive fieldwork is involved. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisite: BIOL 348.** 

#### BIOL 397 Human Anatomy 3 Credits

An advance 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. 2 lecture hours and I three-hour laboratory each week. *Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.* 

#### BIOL 398 Human Physiology 3 Credits

This course is designed to provide students with 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 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: BIOL 397.** 

#### BIOL 447 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 practicals will cover molecular biology techniques, such as, Southern blot, electrophoresis, and gene cloning. 2 hour lectures and 1 three-hour laboratory each week. **Pre-requisite: BIOL 343.** 

#### BIOL 449 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. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisite: BIOL 447.** 

#### BIOL 45 I Biology Seminar I I Credi

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. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153 and AGRI 258 or STAT 201.** 

#### BIOL 452 Biology Seminar II 2 Credits

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. **Pre-requisite: BIOL 451.** 

#### BIOL 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. 3 lecture hours each week. **Pre-requisites: BIOL 153 and BIOL 449 highly recommended.** 

# 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. 3 lecture-hours each week. The course includes a field excursion to areas relevant to the course. **Pre-requisite: BIOL 346.** 

#### 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. **Pre-requisite: BIOL 447.** 

#### 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 practicals provide skills in these areas. 2 lecture hours and 1 three hour laboratories every week. **Pre-requisite: BIOL 447.** 

# 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 emphasize on microbiological techniques and genetic manipulation of microorganisms. 2 lecture hours and 2 two hour laboratories each week. *Pre-requisite: BIOL 476.* 

# BIOT 453 Recombinant DNA Technology 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. 2 lecture hours and I three hour laboratory every week. *Pre-requisite: BIOL* 449.

# 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 provides skills in all the topics. **Pre-requisites: BIOT 334 and BIOT 453.** 

#### 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. 2 lecture hours and I three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **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. 2 lecture-hours and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152** and **BIOL 153.** 

#### **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. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

# 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. 2 lectures and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **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. 2 lecture hours and I three-hour laboratory each week. **Prerequisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **ZOOL** 333 Ichthyology 3 Credits

This course is a study of the biology of fish. Topics covered include the classification, anatomy, reproduction, feeding, growth, behavior and distribution of fish. Aquaculture methods and the Kenyan fishing industry will be discussed. Two lecture hours and one three-hour laboratory each week. *Pre-requisites: BIOL 315 and BIOL 344*.

#### **ZOOL** 334 Herpetology 3 Credits

This course deals with the study of the Biology of amphibians and reptiles. Topics include the morphology, taxonomy, life history, distribution, ecology and behaviour of the amphibians and reptiles. Field and laboratory work involve the collection, identification, and preservation of amphibian and reptile specimens. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **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, behaviour and economic importance of birds. Field and laboratory work include the observation and identification of birds. 2 lecture hours and 1 three-hour laboratory each week.

Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.

#### **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 behaviour of mammals. Field and laboratory work include the observation, collection and identification of mammals. 2 lecture hours and 1 three-hour laboratory each week. *Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.* 

#### **ZOOL** 342 Entomology 3 Credits

This course is an introductory study of the fundamental aspects of insect Biology including the morphology, anatomy, physiology, development, behaviour 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. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **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. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **ZOOL 384** Animal Behaviour 3 Credits

This course designed to introduce students to the mechanisms, development and survival value of behaviour in animals. The interaction between physiological and ecological factors in shaping behaviour are emphasized. Topics covered include the history of the study of animal behaviour, genetic analysis of behaviour, natural selection and ecological analysis of behaviour, learning, nerve cells and behaviour, neuroendocrine systems, development of behaviour, orientation in space, foraging behaviour, reproduction and sexual selection, parental care systems, communication in animals, sociality and dispersion. Each student is required to undertake an individual project. 2 lecture hours each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **ZOOL 396** Mammalian Anatomy 3 Credits

This course is an advanced anatomy course that deals with mammalian anatomy with emphasis on human anatomy. All organsystems will be covered. 2 lecture hours and 1 three-hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **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. 2 lecture hours and 1 three hour laboratory each week. **Pre-requisites: BIOL 447 and BIOL 449.** 

#### **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. 3 lecture hours and I three hour laboratory each week. **Prerequisites: BIOL 447 and PHYS 152 recommended.** 

#### **OTHER ELECTIVES**

#### BIOL 476 General Microbiology 3 Credits

A study of the basic biological properties of microorganisms with emphasis on bacterial biology. Topics include historical development of microbiology, and the structure, classification, nutrition, growth, physiology, immunology, genetics and pathogenicity of micro-organisms. Laboratories include basic microbiological techniques and identification of microorganisms. 2 lecture hours and 1 three-hour laboratory each week. **Prerequisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **ZOOL 325** 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. 2 lecture hours and 1 three hour laboratory each week. **Pre-requisites: BIOL 151, BIOL 152** and BIOL 153.

#### BIOL 401 Topics in Biology I Credit

Topics of current or special interest to faculty and students that are not covered adequately by regular courses are offered under this title. This course may be repeated for different topics. Consult your advisor for more information. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### BIOL 484 (B, C, D) Biology Practicum

2. 3. 4 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 programme 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. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153. and certain advanced courses depending on the nature of the attachment.** 

#### BIOL 495 Independent Research | Credit

A course that permits the student to do independent study in biology. The topic and method of study are selected by the student in consultation with their supervisor. The selected topic is investigated through library research and laboratory or field research. A report detailing the major findings and organized in standard journal format should be submitted to the supervisor at the end of the study. A minimum of 30 clock hours will be required for each unit of credit. **Pre-requisites: BIOL 151, BIOL 152 and BIOL 153.** 

#### **DEPARTMENT OF CHEMISTRY**

#### **FACULTY**

Akumu, E. -Chairperson

Abuto, E.

Adero, P. -Study leave

Anthoney, S. Magut, H. Maradufu, A.

Mutinda, S. -Study leave

Ngendahimanna, A. -Visiting lecturer, USA

Onkoba, E.

Email: hod chemistry@ueab.ac.ke

#### **PHILOSOPHY**

Chemistry is the study of the composition, structure and properties of matter and how it interacts with energy to bring about physical and chemical changes. Chemistry is both a pure and applied science and is central to life and in understanding of God's creation.

#### **MISSION**

The department mission is the provision and advancement of a quality chemical education to the youth for better service to God and mankind.

#### **VISION**

To offer quality education in Chemistry, that will prepare the youth to face the challenges in the chemical discipline of the  $21^{\rm st}$  century with confidence.

#### **EXPECTED OUTCOMES**

To bring to the attention of the students the role of chemistry in understanding current global problems such as food security, energy, natural resources, and management of the environment.

- To prepare students for careers in the chemical industry, in research institutions and in educational institutions at all levels.
- 2. To provide the necessary chemical background for students majoring in Agriculture, Biology, Health Sciences, Earth Sciences and Technology.
- 3. To lay the foundation for graduate studies in Chemistry.

- 4. To impart chemical laboratory skills on how chemical materials are synthesized purified, analysed, stored and how their chemical and physical properties are determined.
- 5. To give students the necessary chemical knowledge that can be used in decision making in managerial careers and in other disciplines hitherto unlearned.

# DEGREES AND DIPLOMAS OFFERED BY THE DEPARTMENT

The Department of Chemistry offers four major options and a minor in chemistry namely;

- I. Bachelor of Science in Chemistry
  - a) Analytical Chemistry Option
  - b) Biochemistry Option
  - c) Industrial Chemistry with Management Option
  - d) Industrial chemistry with Management Option-Upgrading
  - e) General Chemistry Option
- 2. Minor in Chemistry
- 3. Diploma in Analytical chemistry
- 4. Diploma in Industrial chemistry

#### **CAREER OPPORTUNITIES IN BSC CHEMISTRY**

The graduates in Chemistry will find job opportunities in both chemical and food manufacturing and processing industries, research institutions and in educational institutions.

#### **ENTRANCE REQUIREMENTS**

The general entrance requirements for the university must be satisfied. In addition, the student must have attained at least a C+ in Chemistry, C+ in Biology and at least a C+ in either Mathematics or Physics in the KCSE or its equivalent. Students entering with an A-level principal pass in Chemistry and a subsidiary pass in Mathematics, or Physics, or Biology, may be considered for the Chemistry program.

#### INTERDEPARTMENTAL TRANSFER

The general university requirements for interdepartmental transfer must be satisfied. In addition, students wishing to transfer to Chemistry must have at least a C+ grade in CHEM 121 and at least a C+ in MATH 101 or MATH 111. Those who may not have had an exposure to secondary school Chemistry must take CHEM 111 and CHEM 113 with a minimum grade of C+ grade in both courses. Those who took secondary school Chemistry and earned a C+ but lacked a C+ in either Mathematics or Physics can take MATH 101 to clear the deficiency. In that case, a grade of C+ or better will be required to qualify for transfer.

# UPGRADING IN INDUSTRIAL CHEMISTRY WITH MANAGEMENT OPTION

This programme is prepared to meet the needs of chemistry professionals who hold diploma qualifications in Chemical Engineering, Analytical or other related areas of chemistry who wish to upgrade to degree level. The upgrading program is expected to take between 2-3 years to complete. Graduates in this area will find job opportunities in manufacturing and processing industries, research institutions and educational institutions among others.

# ENTRANCE REQUREMENTS FOR UPGRADING STUDENTS

Applicants must meet the following requirements.

- A diploma in chemical engineering or analytical chemistry from a recognised institution with a minimum mean grade of either a C+ or its equivalent.
- A minimum of grade C(plain) or Division III at Kenya Certificate of Secondary Education (KCSE) or its equivalent and at least a C(plain) in Chemistry, Biology, mathematics or Physics.
- 3. Students entering with an A-level principal pass in Chemistry and a subsidiary pass in mathematics or physics or Biology may be considered for the program.

# EXEMPTIONS AND CREDIT TRANSFER FOR UPGRADING STUDENTS

A student wishing to transfer some first and second level (lower division) courses, may do so by following the University's credit transfer procedures. A student can be exempted a total of 17 credits from the General Education Requirements. In addition, 30 credits may be transferred.

The General Requirements courses for exemption to Industrial and Analytical Chemistry upgrading students include;

AGRI 105	Principles of	
	Agricultural technology	2
ECON 201	Introduction to principles	
	of economics	2
ENG 151	Introduction to	
	literary appreciation	2
ENV 227	Environment and Society	2
FCSC 207	Family issues	2
HIST III	Concepts of world civilization	2
MGMT 103	Basic management	
	and entrepreneurial skills	2
PEAC 107	Physical and	
	recreational activities	-1
SOCI 119	Principles of sociology	2
	Vocational Skills (any)	-1

Total 17 credits

# CHALLENGING OF AN EXAM FOR UPGRADING STUDENTS

A total of 12 credits can be challenged. University regulations apply. The following courses may be challenged by students who have a diploma in Chemical Engineering and are enrolled in the Industrial chemistry degree programme. The courses that may be challenged include; CHEM 122, CHEM 211 and CHEM 251.

#### **REQUIREMENTS FOR GRADUATION**

A student upgrading from a diploma, who successfully manages to transfer all the recommended number of credits, exemption and successfully challenges all the recommended examinations will be required to take 59 less credits to be able to graduate.

A minimum of 144 credit hours with an overall GPA of at least 2.00 is required for graduation. A minimum grade of C is required in all core, cognates and elective courses with a GPA of at least 2.25 in the respective option. A student taking minor in Chemistry must attain a minimum grade of C in core and cognate courses.

#### **BACHELOR OF SCIENCE IN CHEMISTRY**

#### **SUMMARY**

General Requirement Courses	41
Core Courses	39
Concentration	34 - 47
Cognates	21 - 29
Electives	9 – 12

Total 144 – 168 Credits

Chemistry majors are required to do CHEM 201 in place of CHEM 200 in the General Education Requirements.

**39 Credits** 

#### CORE COURSES

CHEM 121	General Chemistry I	4
CHEM 122	General Chemistry II	4
CHEM 141	Inorganic Chemistry I	3
CHEM 161	Physical Chemistry I	3
CHEM 211	Organic Chemistry I	4
CHEM 212	Organic Chemistry II	4
CHEM 221	Computer Applications	
	in Chemistry	3
CHEM 242	Inorganic Chemistry II	3
CHEM 254	Laboratory Practice and Safety	2
CHEM 262	Physical Chemistry II	3
CHEM 353	Laboratory Experience	2
CHEM 480	Research in Chemistry	4

#### **CONCENTRATION COURSES**

<b>ANALYTICAL CHEMISTRY OPTION</b> 35 Cred					
	CHEM 251		Analytical Chemistry I	3	
	CHEM 252		Analytical Chemistry II	3	
	CHEM 253		Analytical Food Chemistry	3	
	CHEM 335		Industrial Chemistry I	4	
	CHEM 336		Industrial Chemistry II	4	
	CHEM 357		Environmental		
			Analytical Chemistry	3	
	CHEM 451		Modern Methods of Chemical		
			Analysis and Synthesis	3	
	CHEM 452		Industrial Analytical Chemistry	3	
	CHEM 453		Forensic Analytical Chemistry	3	
	CHEM 471		Green Chemistry	3	
	CHEM 499		Industrial Experience	3	

BIOCHEMISTRY OPTION 39 Cred					
CHEM 300		Introductory Biochemistry	3		
CHEM 317		Protein Biochemistry	3		
CHEM 327		Metabolism I	3		
CHEM 324		Applied Biochemistry	3		
CHEM 326		Bioinformatics	3		
CHEM 328		Industrial Biochemistry	3		
CHEM 420		Immunochemistry	3		
CHEM 421		Biochemical Techniques	3		
CHEM 423		Nucleic Acids and Recombinant			
		DNA Technology	3		
CHEM 426		Microbial Biochemistry	3		
CHEM 429		Nutritional Biochemistry	3		
CHEM 443		Bioinorganic Chemistry	3		

GENERAL CHEMISTRY OPTION 35 Credits					
CHEM 251		Analytical Chemistry I	3		
CHEM 252		Analytical Chemistry II	3		
CHEM 300		Introductory Biochemistry	3		
CHEM 313		Intermediate Organic Chemistry	3		
CHEM 326		Bioinformatics	3		
CHEM 327		Metabolism I	3		
CHEM 343		Coordination Chemistry of			
		the Transition Elements	3		
CHEM 363		Electrochemistry	3		
CHEM 373		Colloidal and Surface Chemistry	3		
	CHEM 251 CHEM 252 CHEM 300 CHEM 313 CHEM 326 CHEM 343 CHEM 363	CHEM 251 CHEM 252 CHEM 300 CHEM 313 CHEM 326 CHEM 327 CHEM 343	CHEM 251 CHEM 252 CHEM 300 CHEM 313 CHEM 326 CHEM 327 CHEM 327 CHEM 343 CHEM 343 CHEM 343 CHEM 343 CHEM 343 CHEM 343 CHEM 343 CHEM 343 COordination Chemistry of the Transition Elements CHEM 363 CHEM 363		

Industrial Experience

CHEM 499

CHEM 415	Advanced Organic Chemistry	3
CHEM 464	Applied Chemical	
	Thermodynamics	3
CHEM 470	Chemistry Project	2

CHEM 470		Chemistry Project	2
<b>NDUSTRIA</b>	L C	CHEMISTRY WITH	
MANAGEME	N.	Γ OPTION 47 Cre	dits
CHEM 251		Analytical Chemistry I	3
CHEM 252		Analytical Chemistry II	3
CHEM 328		Industrial Biochemistry	3
CHEM 330		Introduction to	
		Industrial Chemistry	3
CHEM 334		Unit Operations and	
		Process Control	2
CHEM 335		Industrial Chemistry I	3
CHEM 336		Industrial Chemistry II	3
CHEM 337		Fluid Flow, Material and	
		Energy Transfer	3
CHEM 345		Macromolecular Chemistry	2
CHEM 363		Electrochemistry	3
CHEM 431		Polymer Technology in Chemistry	3
CHEM 434		Industrial Catalysis	3
CHEM 435		Industrial Waste Management	2
CHEM 452		Industrial Analytical Chemistry	2 3 3
CHEM 461		Metallurgy	
CHEM 470		Chemistry Project	2
CHEM 499		Industrial Experience	3

#### **COGNATE COURSES**

#### **ANALYTICAL CHEMISTRY OPTIONS** 24 Credits

CLCS 330	Introduction to Pharmacology	
	and Pharmacognosy	3
MATH 171	Calculus I	3
MATH 172	Calculus II	3
PHYS 151	General Physics I	3
PHYS 152	General Physics II	3
STAT 201	Statistics I	3
STAT 202	Statistics II	3
STAT 230	Statistical data management	
	and analysis	3

BIC	BIOCHEMISTRY OPTION 26 Cred				
ST	TAT 201		Statistics I		3
ST	TAT 202		Statistics II		3
ST	TAT 230		Statistical data management		
			and analysis		3
C	LSC 320		Fundamentals of		
			Clinical Chemistry		2
BI	OL 155		Foundations of Biology I		4
BI	OL 156		Foundations of Biology II		4
BI	OL 444		Cell and Molecular Biology		3
BI	OL 446		Genetics		4

GENERAL CHEMISTRY OPTION 18 Credit						
	STAT 201		Statistics I		3	
	STAT 202		Statistics II		3	
	MATH 171		Calculus I		3	
	MATH 172		Calculus II		3	
	PHYS 151		General Physics I		3	
	PHYS 152		General Physics II		3	

INDUSTRIAL CHEMISTRY WITH						
MANAGEMENT OPTION 23 Credits						
ACCT III		Fundamentals of Accounting I	4			
ACCT 112		Fundamentals of Accounting II	4			
STAT 201		Statistics I	3			
STAT 202		Statistics II	3			
MATH 171		Calculus I	3			
MATH 172		Calculus II	3			
MGMT 230		Fundamentals of Management	3			
MGMT 330		Human Resource				
		and Management	3			
MGMT 475		Production and				

#### **ELECTIVE COURSES**

ANALYTICAL CHEMISTRY OPTION 9 Credits						
	CHEM 373		Colloidal and Surface Chemistry	3		
	CHEM 431		Polymer Technology in Chemistry	3		
	CHEM 461		Metallurgy	3		
	CHEM 454		Aquatic chemistry	3		

Operational Management

GENERAL CHEMISTRY OPTION 9 Credits					
	CHEM 43 I		Polymer Technology in Chemistry	3	
	CHEM 437		Materials Chemistry	3	
	CHEM 443		Bioinorganic Chemistry	3	
	CHEM 471		Green Chemistry	3	

COGNATE COURSES 12 Cre				dits	
	MATH 171	Calculus I	3		
	MATH 172	Calculus II	3		
	STAT 201	Statistics I	3		
	STAT 202	Statistics II	3		

#### **MINOR IN CHEMISTRY**

CORE COURSES 35 Cree				
	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 251		Analytical Chemistry I	3
	CHEM 252		Analytical Chemistry II	3
	CHEM 254		Laboratory Practice and Safety	2
	CHEM 300		Introductory Biochemistry	3
	CHEM 326		Bioinformatics	3
	CHEM 353		Laboratory Experience	2
	CHEM 371		Computer Applications	
			in Chemistry	3

**5 Credits** 

#### **COURSE DESCRIPTIONS**

#### PUCH 102 Chemistry

#### 3 Credits

This course is a bridging course to pre-university students and is designed to provide a thorough introduction to chemistry. The topics covered include-definition of chemistry, branches of chemistry, matter and measurements, atoms, elements and symbols molecules, compounds and mixtures, basic atomic structures and periodic table, chemical families Group I-8, mole concept, introduction to organic chemistry and biochemistry. There will be 2 lecture hours and I three-hour laboratory each week.

# CHEM III 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 3 lecture hours and I three-hour laboratory each week.

#### Prerequisite: CHEM 100 or Chemistry Placement Test.

# CHEM 113 Principles of Organic and Biochemistry 4 Credits

This course is a continuation of CHEM III. The course covers topics in biochemistry, nomenclature, physical and chemical properties, preparation and reactions of organic functional groups. The structure, nomenclature and reactions of benzene and other aromatics. Other topics include; the chemistry of protein, carbohydrates, lipids, vitamins, nucleic acids, bionenergetics, glycolysis, citric acid cycle, oxidative phosphorylation, glycogen and lipid metabolism, body fluids, application of biochemistry to medical fields, and biotechnology. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM III.** 

#### 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. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 111.** 

# CHEM 119 Basic Medical Biochemistry

This course has been designed to fulfill curricula needs of prenurses. Topics to be covered include: atomic structure, acidbase chemistry, introduction to organic chemistry, introduction to biochemistry, discussion on the structure, properties and functions of biomolecules (carbohydrates, lipids proteins enzymes nucleic acids, vitamins and micronutrients), metabolism of biomolecules (carbohydrates, lipids, amino acids RNA, DNA); protein synthesis; lipid transport and storage; cholesterol synthesis transport and excretion; integration of metabolism; conversion of amino acid into specialized products - porphyrins, bile pigments; metabolism of purines and pyrimidines, inborn errors of metabolism. Biochemical procedures which includes common biochemical test; application, limitations biochemical reference values. Biochemistry of specialized tissues (brain, liver, erythrocyte, muscle, adipose). Functional tests of liver, kidney, thyroid, adrenal, pancreas, serum proteins, and enzymes. There will be 4 lecture-hours and 1 three-hour laboratory session per week.

#### 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, atomic theory, stoichiometry, acids and bases, reaction chemistry, gases, liquids, solids and solutions, and chemical bonding are topics to be covered. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisite: Chemistry placement test with at least a** 

Prerequisite: Chemistry placement test with at least a C+ grade.

#### CHEM 122 General Chemistry II 3 Credits

This course is a continuation to CHEM 121. The topics to be covered include qualitative analysis, chemical kinetics, thermodynamics, electrochemistry, and nuclear chemistry. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 121.** 

#### CHEM 141 Inorganic Chemistry I 3 Credits

This course offers introduction to inorganic chemistry. Topics to be covered include chemistry of S and P block elements, molecular structure, molecular shape and symmetry, structure of solids, d-metal complexes, oxidation and reduction, and acids and bases. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 122.** 

#### CHEM 161 Physical Chemistry I 3 Credits

This course is a first of a two-semester sequence covering principles and applications of physical chemistry, intended for chemistry majors and other students having primary interests in biochemical, biological or life-science areas. States and properties of matter. Thermodynamics and its application to chemical and biochemical systems. Chemical equilibrium. Electrochemistry. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisites: CHEM 122.** 

#### CHEM 200 Environmental Science 3 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 2 lecture hours and 1 three-hour laboratory each week.

# CHEM 201 Environmental Chemistry 3 Credits

This is a course which emphasize on the chemistry of the environment. Students in this course are expected to have some knowledge of Chemistry, with a desire of applying this knowledge to the environment. Topics of interest include the atmosphere, energy flow, resources and their use, atmospheric chemistry, geochemistry, environmental chemistry of water, pollution and its solutions. The course will be supplemented by educational field trips. There will be 3 lecture hours each week.

Prerequisite: Consent of the Department.

#### CHEM 211 Organic Chemistry I 4 Credits

This course provides a thorough introduction to the Chemistry of carbon containing compounds. In this course 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. Simple acyclic and cyclic alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, aldehydes, and ketones are dealt with. In all cases emphasis is placed on relationship between structure and reactivity. Stereochemistry and its importance in biology will also be covered. There will be 3 lecture hours and I 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 chemistry of benzene and its derivatives, aromatic compounds in general and aliphatic aromatic compounds. Electrophilic aromatic reactions are also emphasized. Carboxylic acids and their derivatives, amines and amine reactions are also dealt with. The application of ultraviolet, infrared and nuclear magnetic resource spectroscopies and mass spectrometry in the determination of structures of organic compounds is also covered. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 211.** 

#### CHEM 242 Inorganic Chemistry II 3 Credits

This course is a continuation of CHEM 241. Topics to be covered include chemistry of D and F block elements, electronic spectra of complexes, structures and properties of solids, organometallic compounds. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 141.** 

#### CHEM 25 I Analytical Chemistry I 3 Credits

This course will introduce the student to quantitative methods of analysis, particularly the classical methods, gravimetric, volumetric and colorimetric analyses. The topics covered include titrations: 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). Three lecture hours and a threehour laboratory session per week. There will be 2 lecture hours and I three-hour laboratory each week. **Prerequisite: CHEM** 122.

#### CHEM 252 Analytical Chemistry II 3 Credits

This course is a continuation of CHEM 251. 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. Introduction to Spectroscopy, optical spectroscopy, UV-Vis spectrometry, luminescence spectroscopy, Infrared spectrometry, Atomic Optical and Emission spectroscopy, Atomic absorption spectrometry. Mass spectrometry. FT-IR.NMR.X-Ray Diffraction. Electron spectroscopy and Flow injection Analysis. There will be 3 lecture hour per week. **Prerequisite: CHEM 251.** 

# CHEM 253 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 colors, flavors 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. There will be 2 lecture hours and 1 three-hour laboratory each

week. Prerequisite: CHEM 251.

# CHEM 254 Laboratory Practice and Safety 3 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. Demonstrations; essentials of microscopy. Use of laboratory equipment and apparatus. This course will be supplemented by field trips. There will be 2 lecture hours per week.

#### CHEM 262 Physical Chemistry II 3 Credits

This course is a continuation of CHEM 261. Topics to be covered include: Chemical kinetics and catalysis, introductory quantum chemistry and Statistical thermodynamics. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 161.** 

3 Credits

# CHEM 300 Introductory Biochemistry

This is a general introduction to the science of biochemistry. Form, function and brief classification of prokaryotes; cellular architecture and diversity of eukaryotes. Unique properties of carbon and water. Overview of biological molecules and their structure including proteins, carbohydrates, lipids, nucleic acids and DNA. Introduction to metabolic processes and energetics. Biochemical basis of structural and functional variations in living beings. 2 lecture hours and 1 three-hour laboratory each week.

Prerequisite: CHEM 212.

# CHEM 313 Intermediate 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 nucleophilic aromatic substitution, carbanions, carbocations, carbenes, nitrenes, eliminations reactions, rearrangement reactions, pericyclic reactions, orbital symmetry are covered. Reaction mechanisms associated with the above reactions are discussed. Heterocyclic compounds are also studied. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 212.** 

#### CHEM 317 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 2 lecture hours and I three-hour laboratory each week. **Prerequisite: CHEM 300.** 

# CHEM 324 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 2 lecture hours and I three-hour laboratory each week.

#### CHEM 326 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 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 300.** 

#### CHEM 327 Metabolism I 3 Credits

This course provides concepts of metabolism. Topics to be covered include; metabolic pathways of 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 212.** 

# CHEM 328 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 2 lecture hours and 1 three-hour laboratory each week.

# CHEM 330 Introduction to Industrial Chemistry 3 Credits

The course gives a survey on basic elements of industrial Chemistry. 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, reaction kinetics (homogeneous), mass and heat transfer, thermodynamics (chemical and phase equilibrium, material data), 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). Field trips will complement the work covered in this course. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 122.** 

#### CHEM 33 I Industrial Chemistry I 4 Credits

This course introduces students to basic inorganic based industries. Topics to be covered include: principles and methods of heterogeneous catalysis, organic based industries, soda, and sodium hydroxide carbonate, industrial carbon, coal and natural gas, manufacture of hydrogen gas from hydrocarbons, ammonia, nitric acid, sulphuric acid, hydrochloric acid, phosphoric acid, electrolytic industries, chlor-alkali industry, fuel gases, petroleum/ petrochemical industries and photographic products will be covered. This course will be complemented by educational trips to industries. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisites: CHEM 212.** 

#### CHEM 332 Industrial Chemistry II 4 Credits

This course is a continuation of CHEM 321. Topics to be covered include fertilizers and their application, agrichemicals, salt, sodium and its compounds, oils and fats, sugar, starch and fermentation industry, soaps, detergents and perfumes, dyes, pulp and paper, surface coatings and man-made fibres, ceramics and glass processing and Portland cement will also be covered. This course will be complemented by educational trips to industries. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 331.** 

## CHEM 334 Unit Operations and Process Control 2 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. Industrial visits to relevant industries. There will be 2 lecture hours each week. **Prerequisite: CHEM 331.** 

# 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 packedbed 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 2 lecture hours each week.

# Prerequisite: CHEM 262. CHEM 343 Coordination

Coordination
Chemistry of the
Transition Elements 3 Credits

This course will focus on a range of topics relating to the science of Co-ordination Chemistry. These will include: Definition of coordination compounds and relationship to other courses, types of ligand environment and steric effects, DN numbers, oxidation states and the electroneutrality principle, Isomerism, NMR and Symmetry in Inorganic Chemistry, vibrational spectroscopy, Crystal field treatment of coordination compounds and Metalmetal bonding. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 242.** 

# CHEM 350 Macromolecular Chemistry 3 Credits

This course is designed to offer students an introduction to macromolecules in nature. Definitions and classifications. Condensations polymers. Free radical polymerization. Ziegler-Natta polymerization. Molecular weight distribution. Fractionation by phase separation and by GPC (Gel Partition Chromatography). Molecular weight determination. Single chain: internal rotation and unperturbed average dimension. Networks: theory of rubber elasticity. Polymer in solution: interaction and thermodynamic properties. The solid state: chain and glass transition; crystalline polymers and melting temperature. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 212.** 

#### **CHEM 353** Laboratory Experience 2 Credits

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 I semester. **Prerequisite: Consent of the Department.** 

# CHEM 357 Environmental Analytical 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. Environmental Toxicology, Environmental Pollution: Its Causes and Effects, Atmospheric Chemistry, Chemical Solutions to Current Energy and Resources Environmental Problems, Green Chemistry, Wastes are among the topics to be covered. Rigorous quantitative methods of analysis and the general instrumental techniques will be covered. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 251.** 

#### CHEM 361 Basic Biochemistry 3 Credits

This course provides concepts of biochemistry. Topics to be covered include molecular structure, function and reactions of the major chemical constituents of living matter. Topics to be covered include carbohydrates, proteins, lipids, nucleic acids, hormones, vitamins, glycolysis, tricarboxylic acid cycle, oxidative phosphorylation, and enzymes. Other topics include: photosynthesis, metabolic pathways of carbohydrates, proteins, lipids and nucleic acids. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 212.** 

#### CHEM 363 Electrochemistry 3 Credits

This course has been designed to provide the student with a working knowledge of the subject area. The topics dealt with include, among others, the physical chemistry of electrolyte solutions, ion transport in solution, ionic conductivity, electrode equilibrium, reference electrodes, electrode kinetics, heat effects in cells, 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 2 lecture hours and 1 three-hour laboratory each week.

# CHEM 371 Computer Applications in Chemistry 3 Credits

This course is an introduction to computer applications and software's currently and commonly used for scientific study (and in upper-division courses). Students will become proficient in using the operating system, the local area network, and spreadsheets and graphing applications, and will be introduced to computer data acquisition and interfacing, internet information sources, and presentation software. There will be 3 lecture hours and 1 three-hour laboratory each week. **Prerequisites: CHEM 122 and INSY 107.** 

# CHEM 372 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 3 lecture hours each week.

Prerequisite: CHEM 122.

# CHEM 415 Advanced Organic Chemistry 3 Credits

This course is a further study on NMR and MS techniques are dealt with. An introduction to optical rotator dispersion and circular dicroism in relation to structure of organic compounds is given. Natural products chemistry covering terpenes, alkaloids and plant pigments is covered. Other topics include synthetic techniques in organic chemistry, reaction mechanisms in both organic and biological systems, organosulphur, organosilicon, and organometalic compounds. There will be 2 lecture hours and I three-hour laboratory each week. **Prerequisite: CHEM 313.** 

# CHEM 42 I Biochemical Techniques

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 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 300.** 

# CHEM 423 Nucleic Acids and Recombinant DNA Technology 3 Credits

The course is designed to offer concepts in nucleic acids and DNA technology. 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 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 300.** 

#### CHEM 420 Immunochemistry 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 3 lecture hours each week.

## CHEM 426 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 2 lecture hours and 1 three-hour laboratory each week.

3 Credits

# CHEM 427 Nutritional Biochemistry

3 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/water soluble vitamins. Macrominerals; Ca, P, Mg, Na, K. Microminerals; Fe, Zn, Cu, Se, Co, F, Si, Mn, Cr, and I. Food contaminants and their toxicity. Anaerobic/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 2 lecture hours and I three-hour laboratory each week. **Prerequisite: CHEM 300.** 

# CHEM 434 Polymer Technology in Chemistry 3 Credits

This course introduces students to polymer technology in chemistry. Topics to be covered include: polymers in solid and melt state. Glassy, semycrystalline, rubbery and molten states. Molecular origin of elastic behavior. Mechanical properties of polymers. The stress-strain curve at low deformations. Facture and fatigue. Viscoelasticity. Models of iscoelastic behavior. Molecular theories.Rheology.Molecular and technological aspects. Dependence of viscosity on external variables and material characteristics. Processing of polymeric materials. Description of most of the processing technologies of thermoplastic and thermosetting materials. Plastic wastes. Degradation and stabilization mechanisms of polymeric materials. Recycling, recovery of chemicals or energyfrom plastic wastes. Selection criteria of polymeric materials and processing technologies. Matrices and indices. Classroom and lab. exercises. Measurement of several mechanical properties of extruded polymeric materials. Problem solving. There will be 2 lecture hours and I three-hour laboratory each week. Prerequisite: CHEM 212.

## CHEM 435 Industrial Waste Management 2 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 2 lecture hours each week. **Prerequisite: CHEM 332.** 

#### CHEM 433 Materials Chemistry 3 Credits

The aim of the course is to give basic knowledge in solid state chemistry, synthesis methods and characterization of crystalline materials. Technically relevant properties and materials, including semiconductors, optoelectronic and piezoelectric materials and zeolites will be covered during the course. There will be 3 lecture hours each week.

#### 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, Clchemistry, catalysis in petroleum refining (cracking, reforming, alkylation, hydrorefining, etc.), and catalysis by transition metal complexes. There will be 3 lecture hours each week. **Prerequisite: CHEM 242.** 

# CHEM 443 Bioinorganic Chemistry 3 Credits

This course is a discussion of the involvement of inorganic chemistry in biological systems. Chemistry of cations, metalloenzymes, and simpler model systems. Reactions of coordinated ligands, Chemistry of sulphur and phosphorus. There will be 3 lecture hours each week. **Prerequisite: CHEM 242.** 

# CHEM 450 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. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisites: CHEM 212 and CHEM 252.** 

# CHEM 452 Industrial Analytical Chemistry 3 Credits

This course is an introduction to the application of the instrumental analytical techniques to the industry. Instrumental analytical techniques used in the industrial field. Spectroscopic, electrochemical, thermo analytical and chromatographic techniques. Instrumental methods in the control of raw materials, semi-manufactured and finished goods. Analytical control of effluents and of working places. There will be 3 lecture hours each week. **Prerequisite: CHEM 252.** 

# CHEM 453 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. There will be 3 lecture hours each week. **Prerequisite: CHEM 252.** 

#### CHEM 454 Aquatic Chemistry 3 Credits

This course is an introduction to the water cycle; general characteristics of water bodies, Chemistry of continental waters: chemical characteristics of water bodies; basic principles of aquatic chemistry, Monitoring aquatic systems: chemical and biological monitoring; analysis of aquatic samples. Chemistry of the oceans: estuarine processes; buffering and  $\rm CO_2/$  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. There will be 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 252.** 

#### CHEM 461 Metallurgy 3 Credits

This course is an introduction to metallurgy. Topics to be covered includes: General metallurgy. Sources; methods of extraction of metals: classification of mineral ores: - ore dressing, comminution, sorting and agglomeration; extraction processes: - calcination, roasting and smelting; refining processes; recovery of scrap metals; catalysis. Principles and applications of physical mineral processing, hydrometallurgy and electrometallurgy covering combinations, flotation, solid/liquid separation, dewatering, leaching, solvent extraction, purification and separation processes, electrowinning/refining and waste processing. Emphasis is placed on throughput and process calculations for the design of Mineral processing plants. There will be 3 lecture hours each week. **Prerequisite: Consent of the Department.** 

# CHEM 464 Applied Chemical Thermodynamics 3 Credits

This course has the objective of reviewing the basic concepts of thermodynamics with specific applications to processes involving phase equilibrium or equilibrium in chemical reactions, the laws of thermodynamics, and the thermodynamic properties and phase behavior of pure substances, the thermodynamic properties in mixtures and multiphase equilibria in non-reactive systems, the energy balance and equilibrium in chemical reactions. 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 2 lecture hours and 1 three-hour laboratory each week. **Prerequisite: CHEM 262.** 

#### CHEM 470 Chemistry Project 2 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. **Pre-requisite: Consent of the Department.** 

#### CHEM 471 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 3 lecture hours each week. **Prerequisites: CHEM 212 and CHEM 262.** 

#### CHEM 480 Research in Chemistry 4 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. Involves laboratory experimentation as well as a written report on a project from any area of chemistry. Oral presentation of research results will be done at the end of the research work. **Prerequisite: Consent of the Department.** 

#### CHEM 490 Independent reading 2 Credits

This course is devoted to independent investigation techniques. It includes; a paper on selected topics with both critical survey of the chemical literature and results from advanced lab experimentation. **Prerequisite: consent of the department.** 

#### 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 supervisor and course lecturer assessments and a written report submitted. **Prerequisite: Consent of the Department.** 

#### **DEPARTMENT OF FAMILY AND CONSUMER SCIENCES**,

#### **FACULTY**

Ndiku, M. -(Chairperson)
Bitok E. -(on study leave)

Butuk J. Kitur. P.

-(on study leave)

Mkandawire, P. Muchee, T. Onyango, D. Ondieki, E. Wakoli, A.

**Email:** hod\_fcsc@ueab.ac.ke

#### **PHILOSOPHY**

Our philosophy at the department of Family and Consumer Sciences is to educate students in a profession whose goal is to support families living in both rural and urban settings to maintain their human dignity. Living productive and worthwhile lives, the students will continue to effectively develop their skills in the Family and Consumer Sciences amid social, economic and technological changes. In addition to the general philosophy of Family and Consumer Sciences, the department purports to integrate faith and learning through teaching students Christian ways of eating, dressing and family living.

#### **MISSION**

The mission of the Family and Consumer Sciences Department is to provide competent personnel from diverse ethnic and cultural backgrounds in areas that pertain to healthful living. With increasing burden of lifestyle-related diseases, divergent fashions and designs, and broken families, there is a growing demand for nutritionists, dieticians, food specialists, social work experts, hotel and management specialists and fashion and design professionals who are well trained and competent enough to meet the rising demands in food industries and health institutions; fashion and textile designers; and family educators for the purpose of enhancing human dignity.

#### **VISION**

To prepare and graduate the most knowledgeable students in the country who will be the promoters of healthful lifestyle.

#### **OBJECTIVES**

The department of Family and Consumer Sciences aims to achieve the following:

- To prepare competent God fearing personnel in the following areas: Nutrition and Dietetics, Foods and Nutrition, Hotel and Hospitality Management, Fashion and Textile Design and Social Work.
- 2. To develop students who will become promoters of healthful lifestyle habit as well as living and dressing decently.
- 3. To prepare students with effective professional skills in Human Nutrition, Foods and Nutrition, Design, Hospitality and Social Work, and with the capacity of carrying out research in their areas of specialization.
- To develop the necessary entrepreneurial skills which will enable students contribute to eradication of poverty, be self reliant, and responsive to the dynamics of the changing world.
- 5. To strengthen professional skills which will enable students meet the needs of the community through field extension and rural development.
- 6. To prepare students for post-graduate studies in Nutrition and Dietetics, Foods and Nutrition, Hotel and hospitality Management, Fashion and Textile Design, and Social Work related areas.

#### **DEGREES OFFERED BY THE DEPARTMENT**

The department offers the following programs:

### BACHELOR OF SCIENCE IN NUTRITION AND DIETETICS

#### **OBJECTIVES**

The degree in nutrition and dietetics seeks to:

- I. Assist the students in the development of a philosophy of health that encompasses the whole person physical, mental and spiritual.
- Provide the students with the theoretical foundation and practical skills needed to make them competitive practitioners of nutrition and dietetics in the job market i.e. health institutions, community settings, education and research etc.

- 3. Produce graduates that are confident in their capabilities and thus can function as self- employed counselors and consultants in matters of nutrition and dietetics.
- 4. Develop in students the ability to think objectively, and to collect, analyze and draw valid conclusions from scientific data.
- 5. Provide knowledge on current issues pertaining to nutrition and dietetics.
- Develop in the students the vision and moral values necessary to improve the nutritional health of people in a compassionate and caring way and particularly to meet the needs of growing children and people affected by lifestyle diseases.
- 7. Help the students to interpret and communicate the science of nutrition so that people can make informed and practical choices about food and lifestyle, in both health and disease.
- 8. Enable students to develop appropriate research skill methods and aptitude for postgraduate studies.

# BACHELOR OF SCIENCE IN FOODS AND NUTRITION OBJECTIVES

The degree Foods and Nutrition seeks to:

- 1. Promote and serve the needs of the community through field extension and rural development.
- 2. To impart professional skills to students to enable them to be effective food service managers in hotels, hospitals, restaurants, learning institution's cafeterias and other health related institutions.
- 3. Prepare students to offer nutrition services to nongovernmental organization (NGOs) and research institutions.
- 4. Enable students to develop appropriate research skill methods and be prepared for postgraduate studies in Foods and Nutrition.

### BACHELOR OF SCIENCE IN HOTEL AND HOSPITALITY MANAGEMENT

#### **OBJECTIVES**

The degree in Hotel and Hospitality Management seeks to:

- I. Equip the students with the necessary skills for hotel management to be able to successfully manage hospitality facilities.
- 2. Develop the necessary entrepreneurial skills in the students so that they can be self employed upon graduation.
- 3. Provide students with adequate technical and practical skills through well-designed laboratory practical work that will make them competent enough to run reputable restaurants/hotels.
- 4. Enable students to develop appropriate research skill methods and aptitude for postgraduate studies and professional growth.

### BACHELOR OF SCIENCE IN FASHION AND TEXTILE DESIGN

#### **OBJECTIVES**

The degree Fashion and Design seeks to:

- 1. Provide students with necessary skills in Fashion and Textile Design that are applicable in our modern world of people who are striving to be fashionable.
- 2. Empower students to eradicate poverty by being self reliant in the world of economic crisis.
- 3. Enable students to be absorbed in job markets in textile industries, teaching jobs in related areas, designers etc.
- 4. Promote morals accompanied by appropriate dressing on various occasions.
- 5. Prepare students for post graduate studies in Fashion and Textile design.

#### **BACHELOR OF SCIENCE IN SOCIAL WORK**

#### **OBJECTIVES**

The degree in Social Work seeks to:

- 1. Prepare competent social workers.
- 2. Promote and serve the needs of the community through field extension and rural development.
- 3. Provide professional skills to students to enable them to be effective in educating the public, the client and community about social work issues.

- 4. Build the competency of the students in research in the field of social work.
- Prepare students for post graduate studies in social work related areas.

#### **ASSOCIATE DEGREE IN:**

- I. Nutrition and Dietetics
- 2. Foods and Nutrition
- 3. Hotel and Hosp Management
- 4. Fashion and Textile Design
- 5. Social Work

#### **MINORS IN:**

- I. Nutrition and Dietetics
- 2. Foods and Nutrition
- 3. Hotel and Hospitality Management
- 4. Fashion and Textile Design
- 5. Social Work

#### **UPGRADING PROGRAMS**

### BACHELOR OF SCIENCE IN NUTRITION AND DIETETICS

This program is tailored to meet the needs of health professionals who hold diploma qualifications in nutrition and dietetics related areas and who wish to upgrade to degree level while continuing in employment. The upgrading program is expected to take about 21/2-3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements.

- I. A minimum mean grade of C (plain) or Division III at the Kenya Certificate of Secondary Education (KSCE) or its equivalent.
- A diploma in Nutrition and Dietetics, Foods and Nutrition, Public Health Nutrition, Community Nutrition or any health related disciplines such as Nursing, Clinical Medicine, Pharmacy, and Medical Laboratory Sciences from a recognized institution approved by the relevant ministries of Education.
- 3. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma program in which the qualification was obtained to facilitate evaluation and credit transfer.

#### **CREDIT TRANSFER**

A student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer 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 the courses, grades from previous training, and course syllabi/outlines. A minimum of 17 and a maximum of 42 credits may be transferred and exempted. Additional credit based on additional training after the basic diploma may be applied on individual basis. The credit transfer/exemption will consider differential training like in Nutrition and Dietetics, Community Nutrition, Medical Laboratory Services, Clinical Medicine and Pharmacy, Nursing and Foods and Nutrition and public Health Nutrition. The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking exemption/credit transfer.

#### **BACHELOR OF SCIENCE IN FOODS AND NUTRITION**

This program aims to meet the needs of health professionals who hold diploma qualifications in Foods and Nutrition related areas and who wish to upgrade to degree level while continuing in employment. The upgrading program is expected to take about 21/2-3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements.

- 1. A form four certificate or its equivalent
- A diploma in Nutrition and Dietetics, Foods and Nutrition, Community Nutrition, Public Health Nutrition or any health related disciplines such as Nursing, Clinical Medicine, Pharmacy, and Medical Laboratory Sciences from a recognized institution approved by the relevant ministries of Education.
- 3. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma program in which the qualification was obtained to facilitate evaluation and credit transfer.

#### CREDIT TRANSFER

A student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer 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

the courses, grades from previous training, and course syllabi/outlines. A minimum of 17 and a maximum of 45 credits may be transferred and exempted. Additional credit based on additional training after the basic diploma may be applied on individual basis. The credit transfer/exemption will consider differential training like in Nutrition and Dietetics, Public Health Nutrition, Community Nutrition, Medical Laboratory Services, Clinical Medicine and Pharmacy, Nursing and Foods and Nutrition.

The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking exemption/credit transfer.

### BACHELOR OF SCIENCE IN HOTEL AND HOSPITALITY MANAGEMENT

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. The upgrading program is expected to take about 21/2-3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements.

- 1. A form four certificate or its equivalent
- Adiploma in Foods and Nutrition, Tourism and Management, Hotel and Tourism Management, Catering, Housekeeping, Food and Beverage Production and any other hospitality related diploma from a recognized institution approved by the relevant ministries of Education.
- 3. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma program in which the qualification was obtained to facilitate evaluation and credit transfer.

#### CREDIT TRANSFER

A student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer 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 the courses, grades from previous training, and course syllabi/outlines. A minimum of 17 and a maximum of 43 credits may be transferred and exempted. Additional credit based on additional

training after the basic diploma may be applied on individual basis. The credit transfer/exemption will consider differential training like in Foods and Nutrition, Tourism and Management, Hotel and Tourism Management, Catering, Housekeeping, Food and Beverage Production.

The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking exemption/credit transfer.

### BACHELOR OF SCIENCE IN FASHION AND TEXTILE DESIGN

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. The upgrading program is expected to take about 21/2-3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements.

- 1. A form four certificate or its equivalent
- 2. A diploma in Fashion, Design and Craft, Clothing and Textiles, Clothing and Technology, Fashion and Textiles, and Textiles from a recognized institution approved by the relevant ministries of Education.
- 3. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma program in which the qualification was obtained to facilitate evaluation and credit transfer.

#### CREDIT TRANSFER

A student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer 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 the courses, grades from previous training, and course syllabi/outlines. A minimum of 17 and a maximum of 45 credits may be transferred and exempted. Additional credit based on additional training after the basic diploma may be applied on individual basis. The credit transfer/exemption will consider differential training like inFashion, Design and Craft, Clothing and Textiles, Clothing and Technology, Fashion and Textiles, and Textiles.

The student must have a minimum grade of  $C+\ or\ its$  equivalent

in the course he/she is seeking exemption/credit transfer.

#### **BACHELOR OF SCIENCE IN SOCIAL WORK**

This program is tailored to meet the needs of community health professionals who hold diploma qualifications inSocial Work, Community Health, Community Development, Child and Family, Child Development, Counseling and Family issues and who wish to upgrade to degree level while continuing in employment. The upgrading program is expected to take about 21/2-3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements.

- I. A form four certificate or its equivalent
- 2. A diploma in Social Work, Community Health, Community Development, Child and Family, Child Development, Counseling and Family Issues from a recognized institution approved by the relevant ministries of education.
- 3. Provide academic transcript, updated curriculum vitae (CV) and course syllabus from the diploma program in which the qualification was obtained to facilitate evaluation and credit transfer.

#### CREDIT TRANSFER

A student hoping to be exempted from doing some courses offered at the University of Eastern Africa, Baraton or receive credit transfer 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 the courses, grades from previous training, and course syllabi/outlines. A minimum of 17 and a maximum of 44 credits may be transferred and exempted. Additional credit based on additional training after the basic diploma may be applied on individual basis. The credit transfer/exemption will consider differential training like in Social Work, Community Health, Community Development, Child and Family, Child Development, Counseling and Family Issues.

The student must have a minimum grade of C+ or its equivalent in the course he/she is seeking exemption/credit transfer.

#### RECOMMENDED GENERAL EDUCATION COURSES FOR EXEMPTION FOR ALL DIPLOMA HOLDERS

HIST III		Concepts of World Civilization	2		
		Vocational Skills	-		
PEAC 107		Physical and			
		Recreational Activities	1		
ECON 201		Introduction to			
		Principles of Economics	2		
OFTE 120		Introduction to Keyboarding	0		
ENGL 151		Introduction to			
		Literary Appreciation	2		
SWFI 207		Family Issues	2		
SOCI 119		Principles of Sociology	2		
PYSC 101		Introduction to Psychology	2		
AGRI 106		Principles of			
		Agricultural Technology	2		
ENV 227		Environment and society	2		
Total 17 Credits					

#### RECOMMENDED CORE COURSES FOR CREDIT TRANSFER FOR STUDENTS PURSUING NUTRITION AND DIETETICS DEGREE

ACCT 110	Bookkeeping and Accounting	2		
FDNT 126	Introductory Foods, Food			
	Hygiene and Safety	3		
FDNT 127	Introductory Foods			
	Preparation Lab	-		
NUTR 234	Human Nutrition	3		
NUTR 290	Nutrition in Emergency	3		
PHHC 290	Community health and Diagnosis	3		
Total 15 Credits				

15 Credits

#### RECOMMENDED **COURSES FOR CHALLENGE EXAMS FOR STUDENTS PURSUING NUTRITION** AND DIETETICS DEGREE

	DTCS 365		Nutrition Assessment	
			and surveillance	3
	FDNT 332		Meal Management	3
	FDNT 333		Meal Management Laboratory	- 1
	NUTR 310		Nutrition in Life Cycle	3
	NUTR 403		Macronutrients	3
Total 13 Credi				

# RECOMMENDED CORE COURSES FOR CREDIT TRANSFER FOR STUDENTS PURSUING FOODS AND NUTRITION DEGREE

ACCT 110	Bookkeeping and Accounting	2	
FCSC 209	Family resource management	3	
FDNT 126	Introductory Foods, Food		
	Hygiene and Safety	3	
FDNT 127	Introductory Foods		
	Preparation Lab	-1	
NUTR 234	Human Nutrition	3	
<b>NUTR 290</b>	Nutrition in Emergency	3	
PHHC 290	Community health and Diagnosis	3	

Total

18 Credits

# RECOMMENDED COURSES FOR CHALLENGE EXAMS FOR STUDENTS PURSUING FOODS AND NUTRITION DEGREE

DTCS 365	Nutrition Assessment			
	and surveillance	3		
FDNT 332	Meal Management	3		
FDNT 333	Meal Management Laboratory	1		
NUTR 310	Nutrition in Life Cycle	3		
NUTR 403	Macronutrients	3		
Total 13 Credits				

# RECOMMENDED CORE COURSES FOR CREDIT TRANSFER FOR STUDENTS PURSUING HOTEL MANAGEMENT DEGREE

b	MIMOLII		DEGILLE		
	FDNT 126		Introductory Foods, Food		
			Hygiene and Safety	3	
	FDNT 127		Introductory Foods		
			Preparation Lab	1	
	HTMG 200		Introduction to Hotel		
			and Hospitality Management	3	
	MGMT 230		Fundamentals of Management	3	
	MKTG 215		Principles of Marketing	3	
	NUTR 234		Human Nutrition	3	
	Total 16 Credits				

# RECOMMENDED COURSES FOR CHALLENGE EXAM FOR STUDENTS PURSUING HOTEL MANAGEMENT DEGREE

	HTMG 301		Hotel Management Operations	3
	HTMG 302		Food and Beverage Production	4
	HTMG 306		Front Office Management	3
	HMTG 308		House Keeping Operations	
			and Management	3
	FDNT 459		Food Service Management II	4
Total 17 Credits				

# RECOMMENDED CORE COURSES FOR CREDIT TRANSFER FOR STUDENTS PURSUING FASHION AND TEXTILE DESIGN DEGREE

FTXD 150	Fundamentals of	
	Apparel Construction	3
FTXD 160	Fashion Fundamentals	3
FTXD 216	Textile analysis	3
FTXD 260	Principles of Fashion Design	3
MGMT 230	Fundamentals of Management	3
MKTG 215	Principles of Marketing	3
Total	18 Crea	dits

# RECOMMENDED COURSES FOR CHALLENGE EXAM FOR STUDENTS FASHION AND TEXTILE DESIGN DEGREE

FTXD 200	History of Costume	3		
FTXD 217	Interior and Upholstery Design	3		
FTXD 218	Wardrobe Selection	3		
FTXD 330	Flat Pattern Design I	3		
Total 12 Credit				

# RECOMMENDED CORE COURSES FOR CREDIT TRANSFER FOR STUDENTS PURSUING SOCIAL WORK DEGREE

ACCT 110	Bookkeeping and Accounting	2
DEST 250	Gender issues in Development	2
SWFR 209	Family Resource Management	3
SWCD 254	Child Development	3
FDNT 126	Introductory Foods, Food	
	Hygiene and Safety	3
FDNT 127	Introductory Foods	
	Preparation Lab	

NUTR 234 Human Nutrition 3
Total 17 Credits

## RECOMMENDED COURSES FOR CHALLENGE EXAM FOR STUDENTS PURSUING SOCIAL WORK DEGREE

SWFC 250	Family Cultural Perspective	3	
SWMD 275	Marriage Dynamics and Growth	3	
SWCS 356	Child and Spouse Abuse	3	
SWHA 375	HIV/AIDS Prevention,		
	Counseling and Home Care	2	

Total

11 Credits

#### **ENTRANCE REQUIREMENTS**

#### **Direct entry into 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 Nutrition and Dietetics and Associate degree shall meet the following requirements:

- The candidate should also have a KCSE grade (or its equivalent) of C+ or better in any three of the following subjects: chemistry, biology, physics,home science, business, agriculture, mathematics, computer science and geography.
- 2. There will be no entrance into clinical experience if the overall GPA is below 2.33.
- Students from pre-university who may wish to join Bachelor
  of Science in nutrition and dietetics in addition to meeting
  the university entry requirements they must have a grade
  of C+ in any three of the following subjects offered by
  the university under the pre-university program: PUB 101
  Biology, PUCH 102 Chemistry, PUMT 101 Mathematics I,
  PUMT 102 Mathematics II, and PUPH 102 Physics.
- 4. Someone who has finished a diploma in nutrition and dietetics, foods and nutrition, public health nutrition, community nutrition or any health related disciplines such as nursing, clinical medicine, pharmacy, and medical laboratory sciences from a recognized institution approved by the relevant ministries of education may be admitted into the program.

#### Inter-Departmental Transfer

If a student wishes to transfer to the Family and Consumer Sciences Department, to do Nutrition and Dietetics he/she must pass MATH 101Precalculus, and PHYS 105 or 106 Concepts of Physical Science, with no less than a C+.

# Direct entry into Foods and Nutrition, Hotel and Hospitality Management, Fashion and Textile Design, and Social Work.

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 and Nutrition, Hotel and Hospitality Management, Fashion and Textile Design, Social Work and Associate degrees in these respective areas shall meet the following requirements:

- I. 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. Students from pre-university who may wish to join Bachelor of Science in Foods and Nutrition, Hotel and Hospitality Management, Fashion and Textiles Design, Social Work and Associate degrees in this respective areas in addition to meeting the university entry requirements they must have a grade of C+ in any two of the following subjects offered by the university under the pre-university program: PUB 101 Biology, PUCH 102 Chemistry, PUMT 101 Mathematics I, PUMT 102 Mathematics II, and PUPH 102 Physics.
- 3. Someone who has finished a diploma in related areas from a reputable institution can be admitted into the program.

#### **Inter-Departmental Transfer**

If a student wishes to transfer to the Family and Consumer Sciences Department, to do Foods and Nutrition, Hotel and Hospitality Management, Fashion and Textile Design and Social Work he/she must pass MATH 101 Precalculus, and PHYS 105 or 106, Concepts of Physical Science, with no less than a C.

#### REQUIREMENTS FOR GRADUATION

### I. For Bachelor of Science in Nutrition and Dietetics

- i) A student must complete a minimum of 145 credits with a GPA of 2.00 and above
- ii) A GPA of 2.33and above for the core requirements with no grade below C+.
- iii) A GPA of 2.33 and above for the cognates and no grade below C+.

#### For Bachelor of Science in Foods and Nutrition

- A student must complete a minimum of 144 credits with a GPA of 2.00 and above
- ii) A GPA of 2.33and above for the core requirements and with no grade below C+.
- iii) A GPA of 2.00 and above for the cognates and no grade below C.

# 2. For Bachelor of Science in Hotel and Hospitality Management

- i) A student must complete a minimum of 144credits with a GPA of 2.00 and above
- ii) A GPA of 2.25and above for the core requirements with no grade below C.
- iii) A GPA of 2.00 and above for the cognates and no grade below C-.

# 3. For Bachelor of Science in Fashion and Textile Design

- i) A student must complete a minimum of 144 credits with a GPA of 2.00 and above.
- ii) AGPA of 2.25and above for the core requirements and with no grade below C.
- iii) A GPA of 2.00 and above for the cognates and no grade below C-.

#### 4. For Bachelor of Science in Social Work

- i) A student must complete a minimum of 144credits with a GPA of 2.00 and above
- ii) A GPA of 2.25and above for the core requirements and with no grade below C.
- iii) A GPA of 2.00 and above for the cognates and no grade below C-.

#### 5. Associate Degrees.

- i) Nutrition and Dietetics: A student must complete a minimum of 103 credits with a GPA of 2.33 and above with no grade below C+ in core requirements and no grade below a C+ in cognates.
- ii) Foods and Nutrition: A student must complete 99 credits with a GPA of 2. 25 and above and with no grade below C+ in core requirements and no grade below C in cognates.
- iii) Hotel and Hospitality Management: A student must complete a minimum of 102 credits with a GPA of 2.25 and above with no grade below C in core requirements and no grade below C- in cognates.
- iv) Fashion and Textile Design: A student must complete a minimum of 105credits with a GPA of 2.25 and above with no grade below C in core requirements and no grade below C- in cognates.
- v) Social Work: A student must complete a minimum of 103 credits with a GPA of 2.25 and above and with no grade below C in core requirements and no grade below C- in cognates.

# 6. Minors in Family and Consumer Sciences Department

- Nutrition and Dietetics Minor: A student must complete 47credits with a GPA of 2.33 and above with no grade below C+
- ii) Foods and Nutrition: A student must complete 37 credits with a GPA of 2.33 and above and with no grade below C.
- iii) Hotel and Hospitality Management Minor: A student must complete 32 credits with a GPA of 2.25 and above and with no grade below C.
- iv) Fashion and Textile Minor: A student must complete 29 credits with a GPA of 2.25 and above with no grade below C.
- v) Social Work Minor: A student must complete 32 credits with a GPA of 2.25 and above and with no grade below C.

## BACHELOR OF SCIENCE IN NUTRITION AND DIETETICS

#### **SUMMARY**

General Education Courses					
Core Requirements	68				
Cognates	34				
Electives	6				

Total 145 Credits

#### **GENERAL EDUCATION COURSES** 37 Credits

Students will take general requirements as indicated in the University academic bulletin with exception of HELD 110, PHYS 105 or PHYC 106, AGRI 285, STAT 201, CHEM 200, BIOL 105.

**Note:** All 11 credits of arts and Humanities and all the 9 credits of religion must be done.

#### CORE COURSES 68 Credits

١	CORE COURSES 00 Cred			uits
	DTCS 105		Introduction to Nutrition	
			and Dietetics (Seminar)	-1
	DTCS 342		Medical Nutrition Therapy I	4
	DTCS 343		Medical Nutrition Therapy II	4
	DTCS 360		Nutrition Education	
			and Counseling	3
	DTCS 366		Exercise Physiology	
			and sports nutrition	3
	DTCS 445		Nutrition Care Management	3
	DTCS 473		Medical Nutrition	
			Therapy Affiliation	5
	DTCS 478		Community Nutrition Affiliation	5
	FCSC 403		Research Methods I	3
	FCSC 404		Research methods II	
			(Senior project)	2
	FDNT 126		Introductory Foods, Food	
			Hygiene and Safety	3
	FDNT 127		Introductory Foods	
			Preparation Lab	
	FDNT 332		Meal Management	3
	FDNT 333		Meal Management Lab	
	FDNT 459		Food Service Management II	4
	FDNT 369		International Foods Laboratory	2
	NUTR 234		Human Nutrition	3

NUTR 290	Nutrition in Emergency	3
NUTR 310	Nutrition in Life Cycle	3
NUTR 365	Nutrition Assessment	
	and surveillance	3
NUTR 403	Macronutrients	3
NUTR 404	Micronutrients	3
NUTR 461	Nutrition Epidemiology	3

COGNATE COURSES 34 Cred				
ACCT 110		Bookkeeping and Accounting	2	
BIOLIII		Human Anatomy		
		and Physiology I	4	
BIOL 112		Human Anatomy		
		and Physiology II	4	
BIOL 245		Basic Medical Microbiology	4	
CHEM III		Introductory General Chemistry	4	
CHEM 113		Principles of Organic and		
		Biochemistry	4	
CLSC 105		Medical Terminology	-1	
CLSC 252		Principles of Food		
		and Water Microbiology	2	
NRSG 213		Pharmacology in Nursing	3	
PHDT 202		Biostatistics in Public Health	3	
PHHC 290		Community Health		
		and Diagnosis	3	

ELECTIVE C	OL	JRSES 6 Cred	its
SWMD 275		Marriage Dynamics and Growth	3
SWPC 410		Parent Child Relationship	3
SWHS 473		Human Sexuality	3
FTXD 218		Wardrobe Selection/Management	3
NUTR 330		Public Health Nutrition	3

#### **BACHELOR OF SCIENCE IN FOODS AND NUTRITION**

#### **SUMMARY**

General Education Courses	37
Core requirements	66
Cognates	33
Electives	8-9
Total	144 Credits

#### **GENERAL EDUCATION COURSES** 37 Credits

Students will take general requirements as indicated in the University academic Bulletin with exception of HELD 110, PHYS 105 or PHYC 106, AGRI 285, STAT 201, CHEM 200, BIOL 105.

**Note:** All 11 credits of arts and Humanities and all the 9 credits of religion must be done.

CORE COURSES 66 Cred				
	DTCS 342		Medical Nutrition Therapy I	4
	DTCS 343		Medical Nutrition Therapy II	4
	DTSC 360		Nutrition Education and counseling	3
	FDNT 400		Foods and Nutrition Seminar	1
	FCSC 403		Research methods I	3
	FCSC 404		Research methods II	
			(Senior project)	2
	FDNT 126		Introductory Foods, Food	
			Hygiene and Safety	3
	FDNT 127		Introductory Foods	
			Preparation Lab	1
	FDNT 332		Meal Management	3
	FDNT 333		Meal Management Lab	1
	FDNT 452		Food Science	3
	FDNT 453		Food Science Laboratory	1
	FDNT 458		Food Service Management I	4
	FDNT 459		Food Service Management II	4
	FDNT 369		International Foods Laboratory	2
	FDNT 475		Food Demonstration Technique	2
	FDNT 489		Professional Experience	4
	NUTR 234		Human Nutrition	3
	NUTR 290		Nutrition in Emergency	3
	NUTR 310		Nutrition in life cycle	3

NUTR 365	Nutrition Assessment	
	and surveillance	3
NUTR 403	Macronutrients	3
NUTR 404	Micronutrients	3
NUTR 461	Nutrition Epidemiology	3

COGNATE COURSES 33 credits				
	ACCT 110		Bookkeeping and Accounting	2
	BIOLIII		Human Anatomy	
			and Physiology I	4
	BIOL 112		Human Anatomy	
			and Physiology II	4
	BIOL 245		Basic Medical Microbiology	4
	CHEM III		Introductory General Chemistry	4
	CHEM 113		Principles of Organic and	
			Biochemistry	4
	CLSC 350		Principles of Food	
			and Water Microbiology	2
	SWFR 209		Family resource management	3
	PHDT 202		Biostatistics in Public Health	3
	PHHC 290		Community Health and Diagnosis	3

ELECTIVE C	OL	JRSES 8-9 Cr	edits
CLSC 105		Medical Terminology	-
SWMD 275		Marriage Dynamics and Growth	3
SWPC 410		Parent Child Relationship	3
SWHS 473		Human Sexuality	3
FTXD 218		Wardrobe Selection/Management	3
NUTR 330		Public Health Nutrition	3
NRSG 213		Pharmacology in Nursing	2
		-	

# BACHELOR OF SCIENCE IN HOTEL AND HOSPITALITY MANAGEMENT SUMMARY

General Education Courses	37
Core Requirements	63
Cognates	38
Electives	6

Total 144 Credits

#### **GENERAL EDUCATION COURSES** 37 Credits

Students will take general requirements as indicated in the University academic Bulletin with exception of HELD 110, AGRI 285, STAT 201, MGMT 103, ECON 201, and BIOL 105.

**Note:** All II credits of arts and Humanities and all the 9 credits of religion must be done.

CORE COURSES 63 Cred				
	CNST 140	Home Maintenance	2	
	FCSC 403	Research Methods I	3	
	FCSC 404	Research Methods II		
		(senior project)	2	
	FDNT 126	Introductory Foods, Foo	d	
		Hygiene and Safety	3	
	FDNT 127	Introductory Foods		
		Preparation Lab	1	
	HTMG 302	Food and Beverage Prod	duction 3	
	HTMG 303	Food and Beverage prod	duction lab	
	FDNT 452	Food Science	3	
	FDNT 453	Food Science laboratory	1	
	FDNT 458	Food Service Manageme		
	FDNT 459	Food Service Manageme	ent II 4	
	FDNT 369	International Foods Labo	oratory 2	
	HTMG 200	Introduction to Hotel		
		and hospitality Managem	ent 3	
	HTMG 250	Hospitality Law	2	
	HTMG 301	Hotel Management Ope	erations 3	
	HTMG 306	Front Office Manageme	ent 3	
	HTMG 308	House Keeping Operation	ons	
		and Management	3	
	HTMG 350	Health and Safety Regula	ations	
		in the hospitality industry	4	
	HTMG 380	Professional Experience	3	

HTMG 435	Human Resource management	
	for the Hospitality Industry	3
HTMG 442	Tourism Operations	4
HTMG 450	Professional Experience II	3
<b>NUTR 234</b>	Human Nutrition	3

•	COGNATE (	CO	URSES 38 Cre	dits
	ACCT		Fundamentals of Accounting I	4
	ACCT 112		Fundamentals of Accounting II	4
	BIOLIII		Human Anatomy	
			and Physiology I	4
	BIOL 112		Human Anatomy	
			and Physiology II	4
	ECON 210		Principles of Microeconomics	3
	INSY 305		Management	
			Information Systems	3
	FTXD 217		Interior and Upholstery Design	3
	MATH III		Business Mathematics I	4
	MGMT 230		Fundamentals of Management	3
	MKTG 215		Principles of Marketing	3
	PHDT 202		Biostatistics in Public Health	3

ELECTIVE COURSES 6 Cred			its
SWFC 250		Family Cultural Perspective	3
SWCD 275		Marriage Dynamics and Growth	3
SWCD 410		Parent Child Relationship	3
FTXD 218		Wardrobe Selection/Management	3
NUTR 290		Nutrition in Emergency	3
NUTR 330		Public Health Nutrition	3

### BACHELOR OF SCIENCE IN FASHION AND TEXTILE DESIGN

#### **SUMMARY**

General Education Courses	37
Core Courses	61
Cognate Courses	42
Elective Courses	6
Total	146 Credits

#### **GENERAL EDUCATION COURSES** 37 Credits

Students will take general requirements as indicated in the University academic Bulletin with exception of HELD 110, PHYS 105 or PHYC 106, AGRI 285, STAT 201, MGMT 103, ECON 201, and BIOL 105.

**Note:** All II credits of arts and Humanities and all the 9 credits of religion must be done.

#### **CORE COURSES**

#### **61 Credits**

CORE COO	NSES OF CITE	uits
FCSC 403	Research Methods I	3
FCSC 404	Research	
	Methods II (senior project)	2
FTXD 107	Quilting laboratory	1
FTXD 108	Weaving laboratory	1
FTXD121	Creative Fashion	
	crafts laboratory	1
FTXD 150	Fundamentals of Apparel	
	Construction and Fashion	3
FTXD 151	Fundamentals of Apparel	
	Construction and Fashion lab	1
FTXD 200	History of Costume (with lab)	3
FTXD 201	Fashion Illustrator (with lab)	3
FTXD 210	Fashion and	
	Textile Design Career	2
FTXD 216	Textile Analysis (with lab)	3
FTXD 217	Interior and upholstery Design	3
FTXD 218	Wardrobe Selection (with lab)	3
FTXD 230	Flat pattern Design I laboratory	1
FTXD 260	Principles of Fashion Design	3
FTXD 304	Design Portfolio laboratory	1
FTXD 325	Tailoring: Apparel	
	Construction I (with lab)	3
FTXD 326	Tailoring: Apparel	
	Construction II (with lab)	3
	(	

FTXD 330	Flat Pattern Design II Laboratory	1
FTXD 360	Mass Apparel	
	manufacturing laboratory	1
FTXD 370	Creative Fashion Design	3
FTXD 390	Fashion Forecasting	
	and Presentation	3
FTXD 409	Fashion Industry	3
FTXD 410	Advanced Textile Analysis	
	and Design (with lab)	3
FTXD 460	Fashion Marketing	
	and Merchandising	3
FTXD 470	Fashion and Textile	
	Design attachment	4

#### **COGNATE COURSES**

#### **42 Credits**

ACCT III	Fundamentals of Accounting I	4
ACCT 112	Fundamentals of Accounting II	4
CHEM III	Introductory General Chemistry	4
CHEM 114	Textile Chemistry	4
ECON 210	Principles of Microeconomics	3
INSY 305	Management Information System	3
MATH III	Business Mathematics I	4
MECT 131	Technical Drawing	2
MKTG 215	Principles of Marketing	3
MGMT 230	Fundamentals of Management	3
MGMT 325	Human Resource Management	3
PHDT 202	Biostatistics in Public Health 3	
TCED 260	Industrial Safety	2

#### **ELECTIVE COURSES**

#### **6 Credits**

SWMD 275	Marriage Dynamics and Growth	3
SWPC 410	Parent Child Relationship	3
SWHS 473	Human Sexuality	3
FDNT 126	Introduction to	
	Food Hygiene and Safety	3
FDNT 127	Introduction to	
	Food Preparation Lab	
NUTR234	Human Nutrition	3
NUTR 330	Public Health Nutrition	3

#### **BACHELOR OF SCIENCE IN SOCIAL WORK**

#### **SUMMARY**

General Education Courses	41
Core Courses	59
Cognate Courses	34
Elective Courses	10
Total	144 Credits

#### GENERAL EDUCATION COURSES **41 Credits**

Students will take general requirements as indicated in the University academic Bulletin with exception of HELD 110, BIOL 105, AGRI 285, STAT 201.

**Note:** All 11 credits of arts and Humanities and all the 9 credits of religion must be done.

**CORE COURSES 59 Credits** 

EDPC 428	Depression and	
	Stress Management	2
FCSC 403	Research Methods I	3
FCSC 404	Research Methods II	
	(senior project)	2
NUTR 234	Human Nutrition	3
SWIS 122	Introduction to Social Work	3
SWFR 209	Family Resource Management	3
SWCD 254	Child Development	3
SWMS 255	Multiculture in Social Work	2
SWEC 260	Early Childhood Education	
	and Child Psychology	3
SWMD 275	Marriage Dynamics and Growth	3
SWSP 290	Social Policy and Administration	2
SWSA 300	Substance Abuse, Crisis,	
	and Mental Health Work	2
SWES 301	Entrepreneurship in Social Work	
	and Health Care	3
SWSR 303	Social Rehabilitation	
	and Re-integration	2
SWSW309	Social Work at Different Stages	
	of the Life Cycle	3
SWCA 356	Child and Spouse Abuse	3
SWHA 375	HIV/AIDS Prevention, Counseling	
	and Home Care	2
SWSS 400	Seminar in Social Work	

SWPI 407	Professional Issues in Social	
	Work and Development	1
SWPC 410	Parent-Child Relationship	3
SWPE 415	Professional Experience	4
SWHS 473	Human Sexuality	3
SWEC 485	The Exceptional Child	3

(	COGNATE (	COI	URSES 34 Cre	dits
	ACCT 110		Bookkeeping and Accounting	2
	BIOLIII		Human Anatomy	
			and Physiology I	4
	BIOL 112		Human Anatomy	
			and Physiology II	4
	CNST 140		Home Maintenance	2
	DEST 250		Gender Issues in Development	2
	DEST 370		Project Planning, Implementation,	
			Monitoring and Evaluation	3
	DEST 410		Proposal and Grant Writing	3
	DEST 415		Human Rights	2
	EDPC 250		Techniques of Counseling	3
	MGMT 330		Human Resource Management	3
	PHDT 202		Biostatistics in Public Health	3
	PHHC 290		Community Health	
			and Diagnosis	3

E	<b>ELECTIVE COURSES</b>				10 CREDITS		
	FTXD 218		Wardrobe				
			Selection/Management		3		
	FTXD 217		Interior Design		3		
	FDNT 126		Introduction to				
			Food Hygiene and Safety		3		
	FDNT 127		Introduction to				
			Food Preparation Lab		1		
	FDNT 457		Food Service Management I		3		
	EDPC 220		Concepts of Self Esteem		1		
	NUTR 290		Nutrition in Emergency		3		
	NUTR 330		Public Health Nutrition		3		

Note: Social work majors are exempted from SWFI 207. Nutrition and Dietetics, Foods and Nutrition, Fashion and textile design and hotel and hospitality management students who choose SWMD 275 Marriage Dynamics and Growth as an elective are also exempted from SWFI 207.

DTCS 343

#### **ASSOCIATE DEGREE PROGRAMMES**

CENEDAL ED	UCATION COURSES 24 Cr	-d:4-
Arts and Hu		
ENGL I I I	Introduction to Writing Skills I	2
ENGL 112	Introduction to Writing Skills II	2
Business	2 Cre	dits
MGMT 103	Basic Management	
	and Entrepreneurial Skills	2
Education	2 Cre	dits
EDUC 215	Philosophy of	
	Christian Education	2
<b>Natural</b> and	Applied Sciences 7 Cre	dits
INSY 107	Information Technology Today	2
MATH 101	Pre-calculus	3
Religion	7 Cre	dits
RELT 207	Christian Beliefs	3
RELB 220	Life and Teachings	
	of Jesus - General	2
RELB 155	Adventist heritage	2
Social Science	ces 4 Cre	dits
HIST 119	Issues in Development Studies	2
PSYC 101	Introduction to Psychology	2
SWFI 207	Family Issues	2

**Note:** Social work students are exempted from SWFI 207. Nutrition and Dietetics, Foods and nutrition, Fashion and Textile Design and Hotel and Hospitality Management students who choose SWMD 275 Marriage Dynamics and Growth as an elective are also exempted from SWFI 207. Hotel and hospitality management and Fashion and design students who are exempted from MGNT 103 can choose another general also.

#### ASSOCIATE DEGREE IN NUTRITION AND DIETETICS

(	GENERAL EDUCATION COURSES 24 Credit					
(	CORE COU	RSES 52 Cree	dits			
	DTCS 105	Introduction to				
		Nutrition and Dietetics (seminar)	1			
	DTCS 342	Medical Nutrition Therapy I	4			

Medical Nutrition Therapy II

DTCS 360	Nutrition Education and	
	Counseling	3
DTCS 366	Exercise Physiology	
	and Sports Nutrition	3
DTCS 445	Nutrition-Care Management	3
FCSC 403	Research Methods I	3
FCSC 404	Research methods II	
	(senior project)	2
FDNT 126	Introductory Foods,	
	Food Hygiene and Safety	3
FDNT 127	Introductory Foods	
	Preparation Lab	1
FDNT 332	Meal Management	3
FDNT 333	Meal Management Lab	1
FDNT 458	Food Service Management II	4
FDNT 369	International Foods Laboratory	2
NUTR 234	Human Nutrition	3
NUTR 290	Nutrition in Emergency	3
NUTR 310	Nutrition in Life Cycle	3
NUTR 365	Nutrition Assessment	J
	and Surveillance	3
NUTR 403	Macronutrients	3
14011(103	1 laci Origineria	)

COGNATE (	CO	URSES 28 Cre	dits
ACCT 110		Bookkeeping and Accounting	2
BIOLIII		Human Anatomy and Physiology I	4
BIOL 112		Human Anatomy and Physiology II	4
BIOL 245		Basic Medical Microbiology	4
CHEM III		Introductory General Chemistry	4
CHEM 113		Principles of Organic and	
		Biochemistry	4
NRSG 213		Pharmacology in Nursing	3
PHDT 202		Biostatistics in Public Health	3

#### ASSOCIATE DEGREE IN FOODS AND NUTRITION

24 Credits

(	CORE COURSES 47 Cred				
	DTCS 342		Medical Nutrition Therapy I	4	
	DTCS 343		Medical Nutrition Therapy II	4	
	FCSC 403		Research methods I	3	
	FCSC 404		Research methods II		
			(	2	

**GENERAL EDUCATION COURSES** 

FDNT 126	Introductory Foods, Food	
	Hygiene and Safety	3
FDNT 127	Introductory Foods	
	Preparation Lab	-1
FDNT 332	Meal Management	3
FDNT 333	Meal Management Laboratory	-1
FDNT 400	Seminar in Foods and Nutrition	-1
FDNT 452	Food Science	3
FDNT 453	Food Science Laboratory	-1
FDNT 458	Food Service management I	3
FDNT 459	Food Service Management II	3
NUTR 234	Human Nutrition	3
NUTR 290	Nutrition in emergency	3
NUTR 310	Nutrition in the life cycle	3
NUTR 365	Nutrition Assessment	
	and surveillance	3
NUTR 403	Macronutrients	3

(	COGNATE	COI	JR	SES		28 (	Credits

	ACCT I I 0		Bookkeeping and Accounting	2
	BIOLIII		Human Anatomy	
			and Physiology I	4
	BIOL 112		Human Anatomy	
			and Physiology II	4
	CLSC 105		Medical Terminology	1
	CHEM III		Introductory General Chemistry	4
	CHEM 113		Principles of Organic and	
			Biochemistry	4
	SWFR 209		Family resource management	3
	PHDT 202		Biostatistics in Public Health	3
	PHHC 290		Community Health and Diagnosis	3

# ASSOCIATE DEGREE IN HOTEL AND HOSPITALITY MANAGEMENT

GENERAL EDUCATION COURSES 24 Credit					cuits
•	CORE COU	RSE	S	53 Cre	dits
	CNST 140		Home Maintenance		2
	FCSC 403		Research Methods I		3
	FCSC 404		Research Methods II		
			(senior project)		2
	FDNT 126		Introductory Foods, Food		
			Hygiene and Safety		3

CENERAL EDUCATION COLIRGES

FDNT 127	Introductory Foods	
	Preparation Lab	-1
FDN T 452	Food Science	3
FDNT 453	Food Science laboratory	-1
FDNT 458	Food Service management I	3
FDNT 459	Food Service Management II	3
FDNT 369	International Foods Laboratory	2
HTMG 200	Introduction to	
	Hotel Management	3
HTMG 301	Hotel Management Operations	3
HTMG 302	Food and Beverage Production	4
HTMG 306	Front Office Management	3
HTMG 308	House Keeping Operations	
	and Management	3
HTMG 350	Health and safety regulations	
	in the hospitality Industry	4
HTMG 380	Professional Experience I	3
HTMG 442	Tourism Operations	4
NUTR 234	Human Nutrition	3

COGNATE COURSES 25 Cred						
	ACCT III		Fundamentals of Accounting I	4		
	ACCT 112		Fundamentals of Accounting II	4		
	BIOLIII		Human Anatomy			
			and Physiology I	4		
	ECON 210		Principles of Microeconomics	3		
	FTXD 217		Interior and Upholstery Design	3		
	MATH III		Business Mathematics I	4		
	PHDT 202		Biostatistics in Public Health	3		

# ASSOCIATE DEGREE IN FASHION AND TEXTILE DESIGN

GENERAL EDUCATION COURSES 24 Cred					dits
(	CORE COURSES 52 credi				
	FCSC 403		Research Methods I		3
	FCSC 404		Research		
			Methods II (senior project)		2
	FTXD 107		Quilting laboratory		- 1
	FTXD 108		Weaving laboratory		- 1
	FTXD121		Creative Fashion		
			Crafts laboratory		- 1
	FTXD 150		Fundamentals of Apparel		
			Construction and fashion		3

FTXD 151		Fundamentals of Apparel			
		Construction and Fashion lab	-1		
FTXD 200	)	History of Costume (with lab)	3		
FTXD 201		Fashion Illustrator (with lab)	3		
FTXD 210	)	Fashion and Textile Design Career	2		
FTXD 216	)	Textile Analysis (with lab)	3		
FTXD 217	7	Interior and Upholstery Design	3		
FTXD 218	3	Wardrobe Selection (with lab)	3		
FTXD 230	)	Flat pattern Design I laboratory	-1		
FTXD 260	)	Principles of Fashion Design	3		
FTXD 312	<u>-</u>	Introduction to Fashion industry	3		
FTXD 325		Tailoring: Apparel			
		Construction I (with lab)	3		
FTXD 326	)	Tailoring: Apparel			
		Construction II (with lab)	3		
FTXD 330	)	Flat Pattern Design II Laboratory	-		
FTXD 360	)	Mass Apparel manufacturing	3		
FTXD 370	)	Creative Fashion Design with lab	3		
FTXD 390	)	Fashion Forecasting			
		and Presentation	3		
COGNATI	COGNATE COURSES 29 Credit				

COGNATE COURSES 29 Cred				
	ACCT		Fundamentals of Accounting I	4
	ACCT 112		Fundamentals of Accounting II	4
	CHEM III		Introductory General Chemistry	4
	CHEM 114		Textile Chemistry	4
	ECON 210		Principles of Microeconomics	3
	INSY 305		Management Information Systems	3
	MATH III		Business Mathematics I	4
	PHDT 202		Biostatistics in Public Health	3

#### ASSOCIATE DEGREE IN SOCIAL WORK

# GENERAL EDUCATION COURSES 24 Credits CORE COURSES 46 credits

FCSC 403	Research Methods I	3
FCSC 404	Research Methods II	
	(senior project)	2
FDNT 126	Introductory Foods, Food	
	Hygiene and Safety	3
FDNT 127	Introductory Foods	
	Preparation Lab	1
SWFR 209	Family Resource Management	3
SWIS 122	Introduction to Social Work	3

SWFC 250	Family Cultural Perspective	3
SWCD 254	Child Development	3
SWMS 255	Multiculture in Social Work	2
SWMD 275	Marriage Dynamics and Growth	3
SWSP 290	Social Policy and Administration	2
SWSA 300	Substance Abuse, Crisis,	
	and Mental Health Work	2
SWES 301	Entrepreneurship in Social	
	Work and Health Care	3
SWSR 303	Social Rehabilitation	
	and Re-integration	2
SWSW309	Social Work at Different	
	Stages of the Life Cycle	3
SWCS 356	Child and Spouse Abuse	3
SWHA 375	HIV/AIDS Prevention,	
	Counseling and Home Care	2
NUTR 234	Human Nutrition	3

COGNATE COURSES 33 Cred				
ACCT 110		Bookkeeping and Accounting	2	
BIOLIII		Human Anatomy		
		and Physiology I	4	
BIOL 112		Human Anatomy		
		and Physiology II	4	
CHEM III		Introductory General Chemistry	5	
CNST 140		Home Maintenance	2	
DEST 250		Gender Issues in Development	2	
EDPC 250		Techniques of Counseling	3	
EDPC 484		Cross-Cultural Counseling	2	
FTXD 217		Interior & Upholstery Design	3	
PHDT 202		Biostatistics in Public Health	3	

# MINOR IN NUTRITION AND DIETETICS

PHHC 290

•	CORE COURSES 29 Cre			
	FDNT 126		Introductory Foods,	
			Food Hygiene and Safety	3
	FDNT 127		Introductory Foods	
			Preparation Lab	1
	FDNT 332		Meal Management	3
	FDNT 333		Meal Management Laboratory	1
	DTCS 205		Introduction to Nutrition	
			and Dietetics (seminar)	1

Community Health and Diagnosis

**47 Credits** 

DTCS 342	Medical Nutrition Therapy I	4	ECON 210	Principles of Microeconomics	3
DTCS 343	Medical Nutrition Therapy II	4	HTMG 200	Introduction to Hotel Management	3
NUTR 234	Human Nutrition	3	HTMG 300	Hotel Management Operations	3
NUTR 290	Nutrition in Emergency	3	HTMG 350	Health and Safety Regulations	J
NUTR 310	Nutrition in Life Cycle	3	111110 330	in the hospitality industry	4
NUTR 365	Nutrition Assessment	3	MKTG 215	Principles of Marketing	3
14011/303	and Surveillance	3	MGMT 230	Fundamentals of Management	3
COCNIATE CO			MGMT 330	Human Resource Management	3
COGNATE CO			NUTR 234	Human Nutrition	3
ACCT 110	Bookkeeping and Accounting	2			_
BIOL III	Human Anatomy and Physiology I	4	MINOR IN FA		
BIOL 112	Human Anatomy and Physiology II	4	AND TEXTILI		dits
CHEM III	Introductory General Chemistry	4	FTXD 150	Fundamentals of Apparel	
CHEM 113	Principles of Organic and			Construction and fashion	3
	Biochemistry	4	FTXD 151	Fundamentals of Apparel	
MINOR IN FO	ODS AND NUTRITION 37 Cre	dits		Construction and fashion Lab	-
<b>CORE COURS</b>	ES 21 Cre	dits	FTXD 200	History of Costume	3
FDNT 126	Introductory Foods,		FTXD 201	Fashion Illustrator with Lab	3
	Food Hygiene and Safety	3	FTXD 210	Fashion and Textile Design Career	2
FDNT 127	Introductory Foods		FTXD 217	Interior and Upholstery Design	3
	Preparation Lab	1	FTXD 218	Wardrobe Selection with Lab	3
FDNT 332	Meal Management	3	FTXD 230	Flat pattern Design I Laboratory	3
FDNT 333	Meal Management lab	Ī	FTXD 260	Principles of Fashion Design	3
FDNT 400	Seminar in Food and Nutrition	i	FTXD 330	Flat Pattern Design II Laboratory	3
NUTR 234	Human Nutrition	3	FTXD 370	Creative Fashion Design with Lab	3
NUTR 290	Nutrition in emergency	3	MINOR IN SO	OCIAL WORK 32 Cre	dits
NUTR 310	Nutrition in the life cycle	3	SWIS 122	Introduction to Social Work	3
NUTR 365	Nutrition Assessment		SWFR 209	Family Resource Management	3
	and Surveillance	3	SWFC 250	Family Cultural Perspective	3
COGNATE CO			EDPC 250	Techniques of Counseling	3
BIOL I I I	Human Anatomy and Physiology I	4	SWCD 254	Child Development	3
BIOL 112	Human Anatomy and Physiology II	4	SWMS 255	Multiculture in Social Work	2
CHEM III	Introductory General Chemistry	4	SWMD 275	Marriage Dynamics and Growth	3
CHEM 113	Principles of Organic and	'	SWSA 300	Substance Abuse, Crisis,	
CHEHITT	Biochemistry	4		and Mental Health Work	2
	,	1	SWSW 309	Social work at Different	
	TEL AND HOSPITALITY			Stages of the Life Cycle	3
MANAGEMEN			SWCS 356	Child and Spouse Abuse	3
CNST 140	Home Maintenance	2	SWHA 375	HIV/AIDS Prevention,	
FDNT 126	Introductory Foods,	2		Counseling and Home Care	2
FDAIT 127	Food Hygiene and Safety	3	SWSS 400	Seminar in Social Work	1
FDNT 127	Introductory Foods Preparation Lab		SWPI 407	Professional Issues in Social work	İ
FDNT 469	International Foods Laboratory				

#### **COURSE DESCRIPTIONS**

#### **EDUCATION COURSES - HOME SCIENCE**

#### **HOSC 115** Creative Needle Work 3 Credits

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. Two lecture hours and one 3 hour laboratory per week.

# HOSC 120 Introduction to Food Preparation (with lab) 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 150 Clothing Construction I (with lab) 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 equipments 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 210 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 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 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 270 Family Living 3 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 215 Clothing Construction II (with lab) 3 Credits

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. Two lecture hours and one 3 hour laboratory per week.

#### 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 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 350 Food Demonstration Skills 3 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 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 deficiencies; 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 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.

#### **NUTRITION AND DIETETICS**

# DTCS 105 Introduction to Nutrition and Dietetics (Seminar) | | | | | | | | | |

This course is 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.

#### **NUTR 234** Human Nutrition 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. It is a scientific study of the effect of food on living organisms. It introduces nutrition in the life cycle. **Prerequisites: BIOL 111** and BIOL 112.

# NUTR 290 Nutrition in Emergency 3 credits

This course aims at building capacity among students in protecting the nutritional status of vulnerable groups affected by emergencies. During emergencies, individuals who suffer from acute malnutrition are much more likely to become sick and die. At the same time, sick individuals are more likely to become malnourished. The course aims at exposing the students to health and food security assessment, livelihood interventions, working in the community in emergencies and monitoring and evaluation in emergency situations. The course requires students to visit the community for practical assessment of health and food security. **Prerequisite NUTR 234.** 

#### NUTR 310 Nutrition in Life Cycle 3 Credits

This course is designed to meet the expanded needs of a broad spectrum of students pursuing degrees in Nutrition, Nursing and other related health professional studies. The main focus is management of the normal nutrition needs of individuals across the life span. It approaches nutrition from a basic development approach, maintaining a person-centered view of individual integrity. It seeks to discuss the nutritional needs at different stages of human development. **Prerequisite: NUTR 234.** 

### NUTR 330 Public Health 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 deficiencies; adverse outcome of pregnancy; the role of folate and related B vitamins; Diabetes; mellitus, cancer and diet. Three lecture hours and planned field trips apply.

# DTCS 342 Medical Nutrition Therapy I 4 Credits

This course deals with principles and practice in Nutrition and Diet Therapy. Students will be guided to understand medical nutrition therapy and its role in a variety of medical conditions. Part one will cover: metabolic and respiratory stress, illness and nutrition therapy, medications, herbal supplements, and diet-drug interactions, specialized nutrition support, consistency modified and other diets for upper gastrointestinal disorders, fiber-modified diets for lower gastrointestinal tract disorders, energy-and protein-modified diets for cancer and HIV infection. **Prerequisites: NUTR 234, CLSC 105 and NRSG 213.** 

DTCS 343 Medical
Nutrition Therapy II 4 Credits

This course deals with principles and practice in Nutrition and Diet Therapy. Students will be guided to understand medical nutrition therapy and its role in a variety of medical conditions. Part two will cover: carbohydrate and fat modified diets for malabsorption, nutrition therapy for liver and gallbladder, carbohydrate controlled diets for diabetes mellitus, fat controlled, mineral-modified diets for cardiovascular disease, protein-, mineral- and fluid-modified diets for kidney diseases. A 3 day visit to a referral hospital will be required to visit medical, surgical and pediatric wards to shadow a dietician. **Prerequisite: DTCS 342.** 

# DTCS 360 Nutrition Education and Counseling 3 Credits

This course offers effective strategies for counseling patients dealing with obesity, eating disorders and chronic diseases. Students apply nutrition therapy beyond giving information to help patients develop and maintain healthy nutritional strategies. Students are exposed to case studies and critical thinking exercises, in practicing and managing common clinical situations. Nutrition counseling involves a process, a sequence of events, and the elements of the interpersonal relationship between the counselor and client. *Prerequisites: NUTR 234, NUTR 310 and DTCS 342.* 

### NUTR 365 Nutrition Assessment and Surveillance 3 Credits

Students will study 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, implementing, monitoring and evaluation of activities required to institute a successful nutritional intervention program. It presents quality assurance requirements and program implementation, theoretical frameworks of the methods, their history, standards of reference and limitations of the different methods. Criteria for selection of method and determination of method appropriateness for different assessment needs are also taught in this course. Practical experience in application of methods and principles of nutrition surveillance and methods of monitoring household food security are also included. **Prerequisites: NUTR 234 and NUTR 310.** 

# DTCS 366 Exercise Physiology and Sports Nutrition 3 Credits

This course prepares the students in technical and leadership capacity in exercise physiology and sports nutrition programs. It includes: exercise physiology, training, acute and chronic effects of exercise, simple assessment of fitness, role of exercise in prevention of common health problems, management of selected risk factors, and discussion of endurance, strength, flexibility, and aerobic exercises. Laboratory and field trip are included. **Prerequisites: BIOL 105 or BIOL 111 and BIOL 112.** 

#### FCSC 403 Research Methods I 3 Credits

This course introduces students to the 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 112 and PHDT 202.** 

## FCSC 404 Research Methods II (senior project) 2 Credits

This course provides students with an opportunity to put into practice what was learned in research methods II 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 instructor/advisor. The student is expected to report the findings and make an oral presentation to departmental faculty, senior students and any other invited guests. **Prerequisite: FCSC 403.** 

#### **NUTR 403** Macronutrients 3 Credits

This class describes the Macronutrients: Carbohydrates, proteins and fats; classification, dietary requirements, function and deficiencies; digestion and absorption; disorders of nutrient imbalances; case studies; visit to rehabilitation centers.

Prerequisites: NUTR 234 and CHEM 113.

#### **NUTR 404** Micronutrients 3 Credits

This class describes Vitamins: Classification, structure, dietary requirements, vitamins 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.

Prerequisites: NUTR 234 and CHEM 113.

# DTCS 445 Nutrition Care Management 3 Credits

This course exposes students to the application of operations analysis, financial management, quantitative decision making and productivity management techniques to enhance the delivery of nutrition care. There is emphasis on staff justification, continuous quality improvement, reimbursement for nutrition services and case management and entrepreneurship. **Prerequisite: Must be a senior.** 

#### **NUTR 461** Nutrition Epidemiology 2 credits

This class looks at 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 outcomes) associations; interpretation of associations nutritional surveillance; screening tests; collection of data for program evaluation and decision making; management of nutritional related disorders. Importance of research in nutrition and dietetics; evaluation of dietetic research and importance of research in nutrition and dietetic will be covered. **Prerequisite: PHDT 202.** 

# DTCS 473 Medical Nutrition Therapy Affiliation 5 Credits

Students will be required to apply knowledge and skills in clinical facilities as a staff dietitian and attend regular conferences to aid in developing professional competence. *Prerequisites: DTSC 205, DTCS 342, DTCS 343, DTCS 360, DTSC 445, FDNT 332 and FDNT 333.* 

# DTCS 478 Community Nutrition Affiliation 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, association with clinical instructors, community-nutrition events for a period of 10 weeks. 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. **Prerequisites: NUTR 290, NUTR 310, NUTR 365 and NUTR 461.** 

#### **FOODS AND NUTRITION**

#### FDNT 115 Cooking I 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).

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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 126 Introductory Foods, Food Hygiene and Safety 3 Credits

This course is a study of the chemical and physical properties of foods. It covers principles of industrial food production and potential hazards along the food supply chain. Examples include hazard analysis (HACCP, SSOP), International and national foods 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 is also covered. Emphasis is on food hygiene at institutional level and Public health Act. Foods, Drugs and chemical substances Act. A visit to a food processing industry is recommended.

# FDNT 127 Introduction to Food Preparation laboratory | Credit

Students are introduced to fundamentals of the practical preparation of foods. Emphasis is on appropriate ways of food handling and preparation of food.

#### FDNT 332 Meal 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. **Prerequisites: FDNT 126 and FDNT 127.** 

### FDNT 333 Meal Management Laboratory I Credit

This course provides real life experience in meal management that involves menu planning, decision making and cost/time management in food and beverage service. Must be taken concurrently with FDNT 333 (This is a three-hour laboratory).

# FDNT 369 International Foods Laboratory 2 Credits

This course covers social-cultural factors influencing nutrition; indigenous foods: types and resources; indigenous knowledge in food, nutrition and development; international indigenous knowledge network; adaptive strategies and sustainable livelihoods; African knowledge and ideas about indigenous foods; community-based natural resource; indigenous knowledge and intellectual property; projects. This course exposes students to various food preparations, cooking techniques, cooking equipment and recipes based upon cultural and geographic differences and acceptance. Each student is supposed to demonstrate variety of food preparations and recipes which are based upon cultural and geographical differences and preferences which as a result prepares students to accept other cultural feeding styles. The course requires students to visit different types of hotels (This is a three-hour laboratory).

### FDNT 400 Seminar in Food and Nutrition

Students under the guidance of the instructor will present club journals. Here students will do literature search of current issues in Foods and Nutrition and prepare oral presentations for the rest of the class and invited guests. If time allows guest speakers can be brought in also and students could write a critical review or personal reactions after the presentation.

I Credit

# FDNT 415 Professional Experience 4 Credits

Professional experience is supervised experience in laboratory, community projects, business establishment, food systems management or health institutions in areas related to foods and nutrition. Designed to introduce the student to professional practice and leadership roles related to family and consumer sciences. The attachment period is 10 weeks. **Prerequisites:** 

### FDNT 332, FDNT 333, FDNT 458, FDNT 459, DTCS 342 and DTCS 343.

#### FDNT 452 Food Science 3 Credits

This course utilizes methods of objective and subjective evaluation of foods or food products. The students analyze different changes that occur in food when subjected under various conditions such as preservation, storage and fermentation. Factors influencing food acceptability are stressed.

#### Prerequisites: CHEM 111, FDNT 126 and FDNT 127.

# FDNT 453 Food Science laboratory I Credit

In food science laboratory students will do food analysis and recipe standardization. Students will also design an experiment, do it and make a presentation to the rest of the class. Must be taken concurrently with FDNT 450 (This is a three-hour laboratory).

#### FDNT 458 Food Service I 3 Credits

This course is the application of management principles to the preparation and service of food in a large food service system. Emphasis is placed on training quantity food managers. This course is designed to equip students with managerial aspects of foods, such as menu planning, decision making, delegating inventory control, purchasing and costing. To succeed in food service management, the students are informed that, a resourceful management team is the key. It illustrates how to set up a professional management structure for an upscale food establishment and shows how that structure operates.

#### Prerequisites: FDNT 126, FDNT 127 and NUTR 234.

#### FDNT 459 Food Service II 4 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 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 equipments, and handling of staff meetings. Students are exposed to real life experiences of management of various components. Three lecture hours and one 3- hour laboratory per week. A field trip to relevant food service facilities to see first hand how this aspects work is required. **Prerequisites: FDNT 126, FDNT 127, FDNT 332, FDNT 333 and FDNT 458.** 

### FDNT 475 Food Demonstration Techniques 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. **Prerequisite: Must be a senior.** 

#### HOTEL AND HOSPITALITY MANAGEMENT

# HTMG 200 Introduction to Hotel 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. The students will also learn about emerging issues in the hospitality industry.

#### HTMG 250 Hospitality Law 2 Credits

This course will entail learning the Kenyan and International Law on Hospitality Industries. The student will learn the role of the constitution and individual rights and how this applies to the work environment.

# HTMG 300 Hotel Management Operations 3 Credits

This course takes at least ten most successful hotel General Managers in Kenya and studies not only what they do in the hotel industry but also why they are doing it. Specifically the course explores how these managers handle meetings, train employees, maneuver schedules, prioritize time, enhance performances, squeeze finances, and, most importantly, raise profits. The students are to understand the principles and theories of handling purveyors and employees and customers to the detail of analyzing balance sheets and income statements.

# HTMG 302 Food and Beverage Production 4 Credits

This course aims at developing a basic awareness of the technical skills required in the production department. It also gives a comprehensive insight into the commodities required, their characteristics, uses, and handling procedures. It equips students with professional competence and technical skills in the principles of food service and its related activities such as: kitchen organization, food and beverage service equipment, menu planning, principles of food production, methods of cooking, dining service method and procedures. In addition, the course exposes students to laboratory experiences for the purpose of acquiring techniques and tools of food and beverage production in small and large food systems. Three lecture hours and one 3-hour laboratory per week. **Prerequisites: FDNT 126 and FDNT 127.** 

# HTMG 306 Front Office 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 knowledge to understand the guest cycle and gains skills in effective handling of routine Front Office procedures. Areas covered in this course include: Introduction to front office operations, importance of reservation and its procedures, check-in and check-out procedures, preparing guest weekly bills, telephone etiquette, and complaint handling.

# HTMG 308 Housekeeping Operations and Management 3 Credits

The course presents a systematic approach to managing housekeeping operations and provides a thorough overview from the big picture of maintaining a quality staff, planning, and organizing, to the technical details of cleaning each area. The course emphasizes on accommodation services within the hospitality industry. It also gears the student to acquire skills and knowledge necessary to successfully identify the required standards in this area and to consider all aspects of cost control and establishing profitability. Main areas of emphasis include: Role of Housekeeping in the Hospitality Operations, Cleaning Equipment and Agents, Operating Procedure for Servicing a Guest Room, Safety Procedure, Periodic Cleaning Program and Public Area Upkeep, Inter-departmental Relations, and Online Operation.

# HTMG 350 Health and Safety Regulations in the Hospitality Industry 4 Credits

This course exposes students to basic principles on health in food handlings 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 380 Professional Experience I 3 Credits

Professional experience is a carefully planned program and supervised experience providing professional training and practice in Food Service Management. This is designed to expose students to managerial roles related to restaurants/hotels. The Experience period is two months.

# HTMG 435 Human Resource Management in the Hospitality Industry 3 Credits

The course exposes students to the realm of effective and efficient management of people as a resource within the hospitality industry. The students will learn to use both the human, interpersonal and technical skills within the operation that they will be working in.

#### HTMG 442 Tourism Operations 4 Credits

The course of Tourism Operations exposes students to the tourism systems, supply and demand sides (hotels, airlines, travel agents), the tourism products (characteristics and components), tourism markets (market segmentation and profiling), tourism cycle, and tourism planning. Specifically, the course covers areas such as booking services, transport, accommodation, and tourist retail outlets and attractions. Apart from the information passed on in the classroom, the students are expected to get additional information from visiting travel agencies, government travel department, local or regional tourist centers and any other places relevant to the course.

# HTMG 450 Professional Experience II 3 Credits

Professional experience is a carefully planned program, and supervised experience providing professional training and practice in Food Service Management. This is designed to expose students to managerial roles related to restaurants/hotels. The Experience period is two months.

#### **FASHION AND TEXTILE DESIGN**

#### FTXD 107 Quilting laboratory | 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.

#### FTXD 108 Weaving laboratory | | Credit

This is a basic course which can be taken by students majoring in Fashion and Textile Design as well as students majoring in other fields of study. The students are exposed to the different types of cloth weaving methods of ancient and modern textile construction and its technology. Items produced include door mats, table cloths, home decorations etc. Entrepreneurial skills appropriate for business are also learned.

### FTXD 121 Creative Fashion Crafts Laboratory I Credit

This course exposes students to reading and understanding knitting and crocheting patterns as pertaining to ancient and modern methods of textile construction.

### FTXD 150 Fundamentals of Apparel Construction and Fashion 3 Credits

This is a beginning course utilizing basic principles and concepts on the elements of garment construction methods and techniques. Emphasis is on skills and techniques, pattern making or analysis, selection of fabrics and construction processes. Students are also introduced to the terminology and fundamentals of fashion. Emphasis will be on clothing theories as applied to emerging of different fashions.

### FTXD 151 Fundamentals of Apparel Construction and Fashion lab

Students practice skills learned in FTXD 150 class. Should be taken concurrently with FTXD 150. Students construct 2-3 garments.

## FTXD 200 History of Costume (with lab) 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. Field tripis required.

# FTXD 201 Fashion Illustrator (with lab) 3 Credits

This course involves drawing the fashion figure including working sketches. Clothed figure in motion with emphasis on textile characteristics, color mediums, and construction details. Students will develop a personal illustration style and a portfolio. Students will expand on their artistic renderings or drawing, flat sketches, coloration and textile interpretation by using computer programs. The emphasis will be on human figure in fashion proportions that will be drawn from every angle and will be clothed in a variety of garments.

### FTXD 210 Fashions and Textile Design Career 2 Credits

This course is an overview of career opportunity 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 trips are required.

# FTXD 216 Textile Analysis (with lab) 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.

## FTXD 217 Interior and Upholstery Design (with lab) 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. Two lecture hours and one 3 hour laboratory per week.

# FTXD 218 Wardrobe Selection/Management (with lab) 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.

### FTXD 230 Flat Pattern Design I laboratory I Credit

This course examines basic design principlesas 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 260 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 325 Tailoring: Apparel Construction (with lab) I 3 Credits

The students who will take this course willlearn 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

# FTXD 326 Tailoring: Apparel Construction (with lab) II 3 Credits

Students in this course will continue to 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.

# FTXD 330 Flat Pattern Design II Laboratory I Credit

This course is a continuation of Techniques for Pattern Development with an emphasis on industrial production skills. Techniques covered include the development of more complex designs, patterns for stretch fabrics and use of computer to create original patterns. *Prerequisite: FTXD 230.* 

# FTXD 360 Mass Apparel Production (with lab) 3 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 (with lab) 3 Credits

The students who take this class learn embroidery, crossstitches 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 fabrics including ribbed finishes, elastic ending and special seam types. Two lecture hours and one 3-hour Laboratory per week.

# FTXD 390 Fashion Forecasting and Presentation 3 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 410 Advanced Textile Analysis and Design 3 Credits

Advanced textiles analysis and design is the study of textile fibers, yarn structures and fabric construction. Emphasis is on fabric finishes for appearance, hand feel, and performance and the applied designs on the fabrics. Two lecture hours and one 3-hour laboratory per week.

### 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.

## FTXD 470 Fashion and Textile Design attachment 4 Credits

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.

#### **SOCIAL WORK**

## SWIS 122 Introduction to Social Work 3 Credits

This is an introductory course to social work and community development. It equips the students with a clear understanding of social work, its history, ethical and scientific values, importance of social work in the society as well as the scope of social work. The course further outlines the roles of a social worker, areas of social work practice and factors contributing to the need for social work. It also covers the principles and practice of community development, community organization, community empowerment, collaboration, partnerships and organizational networks as well as the management of community programs.

#### SWFI 207 Family Issues 2 Credits

With the modern world where families are facing various challenges, this course is designed to equip students with factors that lead to stable marriages and healthy family relationships. Several contemporary issues about families are evaluated and analyzed.

# SWFR 209 Family Resource Management 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.

#### SWCD 254 Child Development 3 Credits

Child Development is 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 on parental responsibilities. The students are expected to observe the development of a child in home and pre-school atmosphere and then compare with theories about child development.

# SWMS 255 Multiculture in Social Work 2 Credits

This course enables the student to understand the importance of culture in the actions of people and the community. The student knows the social phenomena connected with the encountering of cultures and understands their importance from the point of view of a person's ability to function. The student recognizes his/her own cultural thinking as well as being able to work in a multicultural work environment. The student learns the legislatives regulating multicultural work, the service system and is able to use his own professional work methods in multicultural work.

# SWEC 260 Early Childhood Education and Child Psychology 3 Credits

This course equips the student with the necessary knowledge and skills to handle young children as well as be able to learn the psychology of the young ones so that they can be able to handle them well. Emphasis is on how all these relate to social work and community development.

### SWMD 275 Marriage Dynamics and Growth 3 Credits

Marriage dynamics and growth is a study of factors leading to a stable and fulfilling marriage relationship in the context of contemporary society. This course is designed to teach marriage development right from dating up to old age in marriage life. In addition, the course examines and clarifies goals, attitudes, and values in reference to the contemporary marriages. The factors that lead to stable and fulfilling marriages, as well as good family relationships are studied. Finally, students are taught how to integrate this knowledge into their personal and professional lives.

### SWSP 290 Social Policy and Administration 2 Credits

This course is an introduction to social policy and administration. It discusses decision making process, social policy formulation, policy analysis, administration/implementation and evaluation. It also outlines the trends in social welfare. The course further outlines the policies that govern how to work with different people in the society, including the disabled.

### SWSA 300 Substance Abuse, Crisis, and Mental health Work 2 Credits

This course helps the student to judge his own relationship towards substance abuse and mental health phenomena as well as his own attitudes and capabilities to do substance abuse mental health work. The student familiarizes himself with an investigative research and critical work approach to mental health and substance abuse and their effects at an individual, community, and society level.

# SWES 301 Entrepreneurship in Social Work 3 Credits

This course is an introduction to entrepreneurship. It discusses the evolution of entrepreneurship, entrepreneurial culture, the entrepreneur, as well as entrepreneurial opportunities in social work. It equips the students with enterprise management and business plan skills.

# SWSR303 Social Rehabilitation and Re-integration 2 Credits

This course is an introduction to social deviation. Theories of crime and social deviance are discussed. It also outlines ways on how to deal with the disabled as well as emerging trends in social rehabilitation and re-integration. It involves visitation to the rehabilitation centers.

# SWSW 309 Social Work at Different Stages of the Life Cycle 3 Credits

This course adopts the life cycle reasoning. The student develops a clear understanding of how to work with people of all ages, beginning from childhood through adolescence/youth, adults and the aged given the unique needs and challenges of different ages.

# SWCA 356 Child and Spouse Abuse

3 Credits

The course is designed to make students understand and recognize different types of abuses practiced by family members. There is an awareness of situations contributing to family violence. Emphasis is on abuse prevention.

## SWHA 375 HIV/AIDS Prevention, Counseling and Homecare 2 Credits

The course is designed to provide knowledge and skills regarding HIV/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 the infected and the affected. In addition, students are expected to utilize knowledge in nutrition to provide nutrition care to the infected.

#### SWSS 400 Seminar in Social I Credit

Students under the guidance of the instructor will present club journals. Here students will do literature search of current issues in social work and prepare oral presentations for the rest of the class and invited guests. If time allows guest speakers can be brought in also and students could write a critical review or personal reactions after the presentation.

#### 

This is a study of the conceptual framework of the discipline of social work. It involves the exploration of career and contemporary issues and trends in this discipline.

# SWPC 410 Parent/Child Relationships

This is a study of parental, sibling, and peer interactions of the child in the home environment. Emphasis is placed on the development of a child and parent healthy relationships.

3 Credits

#### **SWPE415** Professional Experience 4 Credits

Professional experience is a carefully planned program and supervised experience providing professional training and practice in social work and community development. This is designed to expose students to managerial roles related to this discipline. The experience period is 10 weeks.

#### SWHS 473 Human Sexuality 3 Credits

This course introduces information and the attitude a counselor needs and presents help for the counselor to educate the public, the client and the community. Topics covered are sexual anatomy, sexual physiology, reproduction, birth control, intimacy and communication skills, enhancing sexual relationships, sexual dysfunctions and therapy, STDs, sexual disorders, sexual health, and sex and the law. Topics on sexual harassment are included.

#### **SWED 485** Exceptional Child 2 Credits

The course equips the student with materials to help families adjust and cope with the challenges of living with an exceptional child. The students are exposed to various types of exceptionalities such as physical and mental challenges, communicative disorders, visual and hearing impairments, emotional behavior disorders, developmental delay and giftedness. Emphasis is placed on assisting the child in emotional, social, spiritual and physical development.

#### **DEPARTMENT OF MATHEMATICS AND PHYSICS**

#### **FACULTY**

Lisso, T. -Chairperson Abuto, J. -(On study leave)

Kathare, A. Kayiita, Z.

Okiro, J. -(On study leave)

Paul Samuel, F. Poblete, A.

Role, E. -(Part time)

Email: hod\_maths@ueab.ac.ke

#### **MATHEMATICS PROGRAMME**

#### **PHILOSOPHY**

In every arena of human activity and endeavor, whether in specialty areas or in plain daily living, mathematics plays an important and vital role in shaping and advancing civilization and the frontiers of science and technology. Mathematics is an abstract science and its abstractness finds application in the solution of numerous and diverse types of problems encountered in all branches of science, engineering, business, economics, etc., and in any problem that pertains to man and the universe. The existing affinity between mathematics and the physical world calls for better discernment of the environment in which we live. Classroom instruction is one of the media by which this could be accomplished. This is the basic reason for arranging a departmental programme which lays emphasis on the usefulness and the utilitarian aspect of mathematics. This programme could also provide an avenue for students to be exposed to new and more mathematical ideas to enhance their ability to analyze problems and to think critically and creatively. In addition, bearing in mind that God did create this world with mathematical precision, it is incumbent for this programme to encourage students to do their academic task with finesse and accuracy. And whatever knowledge and skills they can acquire can be oriented towards the development and further development of their mental, spiritual and physical powers.

#### **MISSION**

The Department sees as its mission the provision and advancement of a wholistic Christian quality education to the youth for better service to God and Mankind.

#### VISION

To offer quality education in Mathematics, Physics and Applied Statistics that will prepare the youths enrolled in our programmes to face the challenges of the 21st century and beyond with confidence.

#### **EXPECTED LEARNING OUTCOMES**

By the end of the degree programme in mathematics, applied statistics and physics, the student should be able to:

- I. Define the terms logic, mathematics, physics, statistics, numbers, acceleration, gravity, velocity, time, mass, weight, force, energy, and work;
- 2. Describe the origins and development of mathematics, physics, and statistics as academic areas of study;
- 3. Relate the mathematical, physics, and statistical concepts of symmetry and design demonstrated in God's creation throughout the universe;
- Explain derivatives of functions and their antiderivatives;
- 5. Explain equations of straight line, conics, tangents and algebraic curves;
- Discuss the relationship between mathematical theory and logic;
- 7. Solve linear and non-linear equations;
- Test statistical hypotheses using descriptive and inferential statistics:
- 9. Analyse and interpret statistical data using computer programme packages;
- 10. Discuss the concept of relativity, Lagrangian mechanics, and crystal structure;
- II. Demonstrate how to generate energy using different modes:
- 12. Prove mathematical theorems:
- 13. Construct linear and non linear mathematical models;
- 14. Analyse the fitness of curves, lines, and charts;
- 15. Illustrate the use of various mathematical software programmes;
- 16. Carry out and report results of a scientific research;
- 17. Pursue graduate and post-graduate programmes in mathematics, physics, and statistics.

### DEGREES OFFERED IN THE DEPARTMENT OF MATHEMATICS AND PHYSICS

- I. Bachelor of Science (BSc) In Mathematics
- 2. Minor In Mathematics
- 3. Minor In Applied Statistics
- 4. Minor In Physics

#### **ENTRANCE REQUIREMENTS**

The minimum entrance requirements are the following:

- I. 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 Physics and Mathematics at KCSE or equivalent for a minor in Physics.
- 3. A minimum grade of C+ (plus) in Physics and Mathematics in the Pre university programme offered by the University.
- 4. A minimum grade of B- (minus) in STAT 201 for a minor in Statistics.
- 5. A minimum grade of B (plain) in the Precalculus course MATH 101 or in MATH 111 for inter-departmental transfer.

#### REQUIREMENTS FOR GRADUATION

- A total of 144 credit hours are required with an aggregate GPA of 2.00.
- 2. A minimum of 77 credit hours in Mathematics with a GPA of at least 2.25 in Mathematics for a Bachelor of Science degree in Mathematics and a minimum of 36 credit hours in Mathematics and Physics and 35 credit hours in Applied Statistics with a GPA of at least 2.25 for a minor in either Mathematics or Physics or Applied Statistics.
- 3. A minimum grade of C- (minus) in all Mathematics, Physics or Chemistry, and Applied Statistics courses.
- 4. A GPA of 2.25 for all core courses with a grade of not less than C- (minus)in any one of them.

#### **COURSE LISTING**

#### **BACHELOR OF SCIENCE IN MATHEMATICS**

#### **SUMMARY**

General Education Courses	45
Core Courses	65
Cognate Courses	22 or 24
Elective Courses	12

Total 144 or 146 Credits

#### **GENERAL EDUCATION COURSES**

Mathematics majors and minors in Physics and Applied Statistics are exempted from the following courses listed under the Natural Sciences and Mathematics section of the general education requirements:

MATH 101	Precalculus	3
MATH 107	Fundamentals of Mathematics	3
AGRI 285	Biostatistics	3
PHYS 105	Concepts of Physical sciences I	2
PHYS 106	Concepts of Physical sciences II	2

#### **BACHELOR OF SCIENCE IN MATHEMATICS**

CORE COURSES 65 Cred			edits	
	MATH 121		Discrete Mathematics	3
	MATH 136		Numerical Analysis I	3
	MATH 171		Calculus I	3
	MATH 172		Calculus II	3
	MATH 271		Linear Algebra I	3
	MATH 275		Calculus III	3
	MATLL 270		Vantau Analusia	2

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MATH 278	Vector Analysis	3
MATH 330	Operations Research I	3
MATH 361	Real Analysis I	3
MATH 362	Real Analysis II	3
MATH 365	Number Theory	3
MATH 371	Linear Algebra II	3
MATH 372	Ordinary Differential Equations	3
MATH 405	Fluid Dynamics	3
MATH 441	Abstract Algebra I	3
MATH 442	Abstract Algebra II	3
MATH 445	Partial Differential Equations	3
MATH 465	Topology	3
MATH 475	Complex Analysis	3

MATH 480	Functional Analysis	3
MATH 490	Mathematics Project	2
STAT 205	Probability Theory and	
	Its Applications	3

#### **COGNATE COURSES**

22 or 24 Credits

Students should take courses from either GROUP I or from Group II.

GROUP I	22 Cre	dits
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 331	Physical Chemistry I	3
COSC 171	Visual Basics Net Programming	3

GROUP II 24 Credit		
PHYS 151	General Physics I	3
PHYS 152	General Physics II	3
PHYS 158	Introduction to Mechanics	3
PHYS 225	Classical Mechanics	3
PHYS 33 I	Quantum Mechanics I	3
COSC 161	Programming in C Language	3
COSC 171	Visual Basics Net Programming	3
INSY 236	Microcomputer Applications	3

#### **ELECTIVE COURSES**

12 Credits

Students should select 12 credit hours from any one of the following groups:

<b>GROUP I</b>	APPLIED MATHEMATICS	
MATH 341	Boolean Algebra	3
MATH 430	Operations Research II	3
MATH 432	Mathematical Modeling	3
MATH 435	Practicum in Operations Research	-1
MATH 436	Numerical Analysis II	3
MATH 455	Mathematical Physics	3
MATH 482	Special Topics in Mathematics	3
STAT 310	Introduction to Econometrics	3

STAT 202

STAT 205

	<b>GROUP II</b>	PURE MATHEMATICS	
	MATH 341	Boolean algebra	3
	MATH 345	Graph Theory	3
	MATH 350	Combinatorics and its applications	3
	MATH 415	Measure and Integration	3
	MATH 423	Coding Theory	3
	MATH 455	Mathematical Physics	3
	MATH 471	Geometry	3
	MATH 482	Special Topics in Mathematics	3
	MATH 495	Independent Study	3
	GROUP III	APPLIED STATISTICS	
	STAT 202	Statistics II	3
	STAT 230	Statistical Data Management	
		and Analysis	3
	STAT 310	Introduction to Econometrics	3
	STAT 315	Statistical Quality Control	3
	STAT 320	Analysis of Variance	
		and Experimental Designs	3
	STAT 330	Design of Sample Surveys	3
	STAT 335	Applied time Series Analysis	3
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1	MINOR IN MA		
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STAT 230	Statistical Data	
	Management and Analysis	3
STAT 320	Analysis of variance and	
	Experimental designs	3
STAT 330	Design of Sample Surveys	
STAT 335	Applied Time Series Analysis	3
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STAT 310	Introduction to Econometrics	3
STAT 315	Statistical Quality Control	3
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Probability Theory and

Statistics II

Its Applications

3

#### **COURSE DESCRIPTIONS**

Below is the placement scale:

**Score Placement** 0 - 29 MATH 001

30 - 50 MATH 101/MATH 107/MATH 111

**Note:** Those majoring in mathematics and those majoring in other areas, where MATH 171 and MATH 191 are basic requirements, can proceed directly to MATH 171 or MATH 191 if they obtain a score of 35 and above. If unable to achieve such score, they will be required to take MATH 110.

#### **NON CREDIT EARNING COURSES**

### MATH 001 Developmental Mathematics (3) 0 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. *This course does not apply to the general education requirements.* 

#### MATH 110 Basic Mathematics (3) 0 Credits

This is a course in basic concepts in algebra, trigonometry and selected transcendental functions; Real numbers and their properties, coordinate systems, lines and equations of lines, functions and graphs, linear and non-linear models, exponential and logarithmic functions, trigonometric identities, half-angle formulas, an introduction to the use of MATHLAB, Math Type, and Mathematical Programmes. *This course does not apply to the general education requirements.* 

#### **NON-MATHEMATICS MAJORS COURSES**

#### MATH 101 Pre-calculus 3 Credits

This course is designed for prospective students from other areas of science whose major areas of specialization require a strong mathematics background. Topics to be covered include: sets and set operations, 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 score of 30 on the Mathematics Placement Test or a minimum of C- in MATH 001.** 

#### MATH 102 Basic Calculus 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. Differentiation rules, applications of the derivative, integration and its applications. **Prerequisite: A minimum grade of C- in MATH 101.** 

### MATH 107 Fundamentals of Mathematics 3 Credits

This course provides a solid mathematical base for Liberal Arts students. Topics to be covered include: Sets and set operations, exponential and logarithmic functions, relations and functions, combining functions, inverses of functions, an introduction to the elements of descriptive statistics. **Prerequisite: A minimum score of 30 on the Mathematics Placement Test or a minimum grade of C- in MATH 001.** 

### MATH III Business Mathematics I 4 Credits

Sets and set operations, sets of real numbers and their properties and operations, 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 score of 30 on the Mathematics Placement Test or A minimum grade of a C in MATH 001.** 

### MATH 112 Business Mathematics II 4 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, integration and its applications in business and economics, functions of several variables, and partial derivatives.

#### Prerequisite: A minimum grade of C- in MATH 111.

**Note:** No student is granted credit in more than one course from this group of courses: MATH 112, MATH 171 and MATH 193.

### MATH 191 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. 3 lecture hours per week. **Prerequisite:** A minimum score of 35 on the mathematics placement test or a minimum grade of C in MATH 110.

### MATH 192 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. 3 lecture hours per week. **Prerequisite: Minimum grade of C- in MATH 191.** 

### MATH 291 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. 3 lecture hours per week. **Prerequisite: Minimum grade of C- in MATH 192.** 

### MATH 292 Engineering Mathematics IV 3 Credits

An introduction to Laplace transforms, Fourier series and Z transforms, data handling and elements of probability theory. 3 lecture hours per week. **Prerequisite:** Minimum grade of **C- in MATH 291.** 

### MATHEMATICS MAJOR COURSES MATH 121 Discrete Mathematics 3 Credits

This is an introductory course in set theory and logic. The topics to be covered include: sets and operation on sets, finite and infinite sets, Venn diagrams, propositions and truth tables, the algebra of propositions, conditional statements, arguments and logical implications, applications in electronics and other fields, elements of graph theory, trees and diagraphs. A field visit in industries will be required of every student. **Prerequisite: A minimum score of 30 on the Mathematics Placement Test or Departmental consent.** 

#### MATH 136 Numerical Analysis I 3 Credits

This course is designed to introduce students to the theory and techniques of solving numerically non linear equations and systems of linear equations. The methods to be considered include: floating point arithmetic, Newton's, Newton Raphson's, false position, bisection, secant, Gaussian quadrature, Gauss Seidel, Cubic Splines, Given's and Bairstow's; students will also be exposed to techniques of error control. Understanding the nature and limitations of each method will be emphasized. A field visit to industries is required. **Prerequisite: A minimum grade of C- in either MATH 112 or MATH 171.** 

#### MATH 171 Calculus I 3 Credits

This course aims to introduce students to basic concepts in differential calculus of functions of one variable and trigonometry. The derivative, differentials, chain rule, implicit differentiation, higher order derivatives, Newton's method, Rolle's theorem, Mean Value theorem, first and second derivative tests, anti-derivatives, area, inscribed and circumscribed polygons, fundamental theorem of calculus, indefinite integrals, trapezoidal rule, Simpson's rule. *Prerequisite: A minimum score of 35 on the Mathematics Placement Test or a minimum grade of C+ in MATH 110.* 

#### MATH 172 Calculus II 3 Credits

This course is a continuation of MATH 171. Topics includes: area of regions bounded by graphs, solids of revolution, volumes using cylindrical shells, volumes by slicing, arc length and surfaces of revolution, work, force exerted by a fluid, moments and centre of mass of a lamina and other applications, techniques of integration, indeterminate forms, integrals with infinite limits, integrals with discontinuous integrands, Taylor's formula, an introduction to functions of several variables; the three - dimensional coordinate system, surfaces in Space, and partial derivatives. **Prerequisite: A minimum grade of C- in MATH 171.** 

#### MATH 271 Linear Algebra I 3 Credits

This course exposes the student to the basic concepts in linear algebra. Topics include: basic definitions, systems of linear equations, matrix algebra, determinants, special matrices, algebraic systems; vector spaces, linear combinations, linear dependence and linear independence, dot and cross product, properties of vector spaces, planes and equations of planes, parallel and perpendicular planes, angle between planes, distance of a point to a plane, linear functions and linear transformations, composites of linear mapping. A field visit in industries will be required of every student. **Prerequisite: A minimum grade of C- in either MATH 112 or MATH 172 or Departmental consent.** 

#### MATH 275 Calculus III 3 Credits

This course is a sequel to MATH 172. The course topics include: Functions of several variables, limits and continuity, partial derivatives, differentiation of functions of several variables, derivatives and differentials of composite functions, implicit functions, inverse functions, directional derivatives, partial derivatives of higher order, higher derivatives of composite functions and of implicit functions, integration of functions of several variables. **Prerequisite: A minimum grade of C- in either MATH 172 or MATH 112.** 

#### MATH 278 Vector Analysis 3 Credits

This course covers topics in vector analysis; vector algebra, vector differentiation and integration, gradient, divergence, curl, Green's theorem, Stoke's theorem and other related theorems, tensors and tensor valued functions, coordinate transformations, tangent spaces, covariant differentiation, geodesic coordinates, curvature tensor and Riemann Christoffel tensor and applications of tensor analysis in Frenet Serret formulas, parallel displacement of vectors, Einstein's law of gravitation, and Lagrange equations. *Prerequisites: Minimum grades of C- in MATH 271 and MATH 275.* 

#### MATH 315 Mathematics Education 3 Credits

This is an introductory course for students considering careers in teaching. Students will explore the current trends both in mathematics education and in education generally; developments in mathematics curriculum and assessment.

Prerequisite: A minimum grade of C- in MATH 275. In addition, EDPC 101 and EDPC 302 are highly recommended.

#### MATH 330 Operations Research I 3 Credits

This course introduces the student to a study of the linear programming (LP) problems including the requirements for an LP problem; formulation of linear optimization models, convex analysis in En, graphical and algebraic solution methods, the Simplex Algorithm, the revised Simplex method, concepts in economics, namely: supply, demand and elasticity, duality, sensitivity analysis, solutions by computers, the classical transportation model, limitations of linear programming methods, applications of linear programming. A field visit to industries is required. **Prerequisite: A minimum grade of C - in MATH 271 or Departmental consent.** 

#### MATH 341 Boolean Algebra 3 Credits

This course is a sequel to MATH121. The course topics include: the algebra of sets, definitions of basic terminologies, symbolic logic, algebra of propositions, switching algebra, relay circuits, circuits for arithmetic computation. A field visit to industries is required. *Prerequisite: A minimum grade of C- in MATH 121.* 

#### MATH 345 Graph Theory 3 Credits

This course introduces students to basic concepts in graph theory. Students will be exposed to 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 MATH341.** 

### MATH 350 Combinatorics and Its Applications 3 Credits

This course is designed to expose students to combinatorics and discrete mathematics. Topics to be covered include graph theory, Ramsey theory, finite geometries, combinatorial enumeration, combinatorial games. *Prerequisite: A minimum grade of C- in MATH 345*.

#### MATH 361 Real Analysis I 3 Credits

This is an introductory course to real analysis, topics to be covered include: real number system, completeness axiom, compactness, limits of functions, sequences and series, convergence, limit superior and inferior for real numerical sequences, absolute convergence, differentiability and continuity of functions, the mean value theorem, and Riemann integrals. **Prerequisite:** A minimum grade of C- in MATH 278.

#### MATH 362 Real Analysis II 3 Credits

This course is a sequel to MATH 361 covering the following topics: infinite series, power series, radius of convergence, monotonic functions, functions of bounded variation, rectifiable paths, mappings, Riemann Stieltjes integrals, improper integrals, exponents and logarithms and Fourier series. *Prerequisite: A minimum grade of C- in MATH 361*.

#### MATH 365 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, distribution of primes, algebraic numbers, fields, factorization, and partition functions. **Prerequisite: A minimum grade of C- in MATH 278.** 

#### MATH 371 Linear Algebra II 3 Credits

This course a sequel to MATH 271 designed to cover the following topics: linear transformations, numerical evaluation of solutions, systems of differential equations, matrices, Eigenvalues 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 MATH 271.** 

### MATH 372 Ordinary Differential Equations 3 Credits

An introduction to differential equations and their applications, based upon knowledge of calculus. Topics include: differential equations, definitions of basic terms, singular solutions, solutions of first order and simple higher order equations by various methods, applications of ordinary differential equations, linear differential equations, complementary and complete solutions, solutions by Laplace Transforms, gamma and beta functions, solution by series, Taylor, FrÖebenius and others, systems of differential equations, and use of Eigenvalues and Eigenvectors.

Prerequisite: A minimum grade of C- in MATH 361.

#### MATH 405 Fluid Dynamics 3 credits

This course will cover the following topics: Fluids flows, 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 PHYS 310 or departmental consent.

### MATH 415 Measure and Integration 3 Credits

An introduction to Riemann integral, general measures, measurability, Caratheodory extension theorem and construction of measures, integration theory, convergence theorems, Lp-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 362.** 

#### MATH 423 Coding Theory 3 Credits

This course will cover the following topics: an 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 COSC161 and MATH 236.** 

#### 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

A course in the 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 330.** 

### MATH 435 Practicum in Operations Research | | Credit

Students will learn to use relevant software packages that are normally utilized for both deterministic and stochastic models. Applications to problems in industry and public policy will be emphasized. 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

This course is a continuation of the course MATH 236. Topics to be covered include: problem formulation, error analysis, polynomial approximation, the eigenvalue problem, numerical differentiation and integration, numerical solutions of partial differential equations and stability of numerical solutions. A field visit in industries will be required of every student. **Prerequisites:** A minimum grade of C- in both MATH

Prerequisites: A minimum grade of C- in both MATH 136 and MATH 372.

#### MATH 441 Abstract Algebra I 3 Credits

A study of 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, Eucli dean rings, rings of polynomials over fields). *Prerequisite: A minimum grade of C- in MATH 271*.

#### MATH 442 Abstract Algebra II 3 Credits

Review of rings, vector spaces and modules, linear dependence, dual spaces, inner products, field, extension fields, roots, constructability, Galois Theory, solvability by radicals, linear transformations, algebra of transformation, characteristic roots, canonical forms, and some topics in linear algebra: matrix algebra, trace and transpose, determinants, real quadratic forms. **Prerequisite: A minimum grade of C- in MATH 441.** 

### 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, elliptic equations, hyperbolic equations, and parabolic equations and their applications. **Prerequisite:** A minimum grade of C- in MATH 373.

#### MATH 455 Mathematical Physics 3 Credits

Use of differential equation in Physics; Laplace transforms, Poisson-Helmbolts and Schrodinger, the vector field and properties of vectors; the gradient, divergence; curl and Laplacian Operators, solenoidal, non-solenoidal, rotational and irrotational vectors, Gauss and Stoke's theorems, functions of a complex variable, summary of complex algebra, complex differentiation and the Cauchy-Reimann equations, complex integration and Cauchy's integral theorem, Cauchy integral formula, the Laurent series and the residue theory, applications of the residue theorem in evaluating integrals and series, special functions: Legendre, Hermite, Bessel, Gamma, Beta and Green's functions; and their applications in solving physics problems. **Prerequisite: A minimum grade of C- in MATH 372.** 

#### MATH 465 Topology 3 Credits

This course aims at introducing the student with some knowledge of calculus to the elements of topology. Topics to be covered include: topological spaces, continuous mappings, metric spaces, convergence, sequences, compactness, connectedness and homotopy theory. **Prerequisite:** A minimum grade of C- in MATH 362.

#### MATH 471 Geometry 3 Credits

A study of the basic structure of Euclidean geometry together with topics from advanced Euclidean geometry and non-Euclidean geometry including axiomatics, finite geometry, convexity, and classical Euclidean and non-Euclidean geometry, spherical, hyperbolic, and projective geometry, with emphasis on the similarities and differences found in various geometries. Isometries and other transformations are studied and used throughout. The history of the development of geometric ideas is discussed. This course is strongly recommended for prospective high school teachers. **Prerequisite: A minimum grade of C- in MATH 271.** 

#### MATH 475 Complex Analysis 3 Credits

This course covers complex variables and regions, analytical functions, Cauchy domain conditions, harmonic functions, elementary functions; exponential, trigonometric, hyperbolic and inverse trigonometrical, mapping by elementary functions, integration, Cauchy Goursat theorem, Laurent and Taylor series, residues and poles, conformal mapping and applications, Schwarz Christoffel transformation and applications.

Prerequisite: A minimum grade of C- in MATH 372.

#### 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, the Hahn Banach theorem, uniform boundedness theorem, open mapping theorem, closed graph theorem. **Prerequisite: A minimum grade of C- in MATH 475.** 

### MATH 482 Special Topics in Mathematics 3 Credits

This course covers topics of general or special interest to students. The focus will be on such topics as: actuarial mathematics, affine geometry, asymptotic methods, Banach spaces, calculus of variations, conformal mappings, differential geometry, differentiable manifolds, Fourier analysis, game theory, Green's functions, Hilbert spaces, information theory, Lie algebras, mathematics of chaos, optimization theory, mathematics of finance, theory of spinors, algebraic topology, or any topics in the areas of pure and applied mathematics which are normally not taken up or considered in depth in the mathematics courses which are regularly offered. **Prerequisite: Completion of the 300 level series of the required mathematics courses.** 

#### MATH 490 Mathematics Project 2 Credits

In this course, 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/she 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 and a minimum grade of C- in ENGL 112.** 

#### **APPLIED STATISTICS COURSES**

### 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, 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: MATH 101 or Departmental consent.* 

#### STAT 201 Statistics I 3 Credits

A study of basic descriptive and inferential statistics, including meaning and role of statistics, data gathering, organization and presentation, measures of central tendency and dispersion, probability sampling and distributions, point and interval estimates, confidence intervals and levels, statistical inferences (hypotheses testing) involving the binomial, normal, Poisson, t, and the chi-square distributions, simple linear regression and correlation. *Prerequisite: A minimum grade of C- in MATH 101*, or MATH 101, or MATH 191, or Departmental consent.

#### STAT 202 Statistics II 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, chisquare test and non parametric tests namely; the sign test, Wilcoxon's Matched Pairs Signed Ranks test, Wilcoxon Rank Sum test, Median test, Mann Whitney U test, Wald Wolfowitz Runs test, test for randomness, Kruskal Wallis H test, Kolmogrov - Smirnov test, Friedman Fr test, Spearman's rho test, McNemar and the Cochran Q tests. *Prerequisite: A minimum grade of C- in STAT 201*.

### STAT 205 Probability Theory and Its Applications 3 Credits

The purpose of this course is familiarize students to the usefulness in mathematical statistics of random variables, distribution functions, independence, special parametric families of univariate distributions; discrete and continuous functions; Bernoulli, hypergeometric, binomial, and 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 271.** 

# STAT 230 Statistical Data Management and Analysis 3 Credits

The purpose of this course is to familiarize student with the application of program packages (e.g. SPSS or SAS) to obtain the solutions of one -, two - and k - sample parametric and nonparametric statistical problems, basic concepts in data preparation, modification, analysis and interpretation of results will be presented. A basic computer knowledge is required. 2-hours lectureand a 3 hours laboratory session per week.

Prerequisite: A minimum grade of C- in STAT 202.

### STAT 310 Introduction to Econometrics

3 Credits

This course is an introductory survey of econometrics and its applications in business and economics. The topics to be covered include: probability sampling, hypothesis testing, regression and correlation techniques, the simultaneous equation models and problems of econometrics requiring the use of applied statistics. **Prerequisite: A minimum grade of C- in STAT 202.** 

### STAT 335 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 205.

### STAT 315 Statistical Quality Control 3 Credits

This course serves as 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 are highly recommended. **Prerequisite:** A minimum grade of C- in STAT 202.

### STAT 320 Analysis of Variance and Experimental Designs 3 Credits

This course considers a study of the various experimental designs in sciences. Topics to be covered include: the randomized block design, incomplete block designs, analysis of Latin squares, and 2k - factorial experiments, analysis of variance (ANOVA) applied to experimental designs; analysis of covariance (ANCOVA), the interpretation of computer outputs will be emphasized. **Prerequisites: A minimum grade of C-in STAT 205 or Departmental consent and STAT 230.** 

### STAT 330 Design of Sample Surveys 3 Credits

This course discusses the 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 320.

### STAT 405 Applied Linear Regression

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. *Prerequisites: A minimum grade of C- in STAT 205 or Departmental consent and STAT 230.* 

3 Credits

### STAT 455 Multivariate Techniques 3 Credits

This course centres on the statistical analysis of multivariate data. Topics to be covered 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. *Prerequisites: A minimum grade of C- in STAT 205 or Departmental consent and MATH 230* 

### STAT 485 Theory and Practice of Statistics in Education 3 Credits

This course is designed to acquaint students to the practical and theoretical issues in teaching statistics and in using technology to teach statistics; including the use of statistical software as educational tools. **Prerequisite: A minimum grade of C- in STAT 230.** 

### STAT 490 Special Project in Statistics 2 Credits

Guided independent research aimed at assisting the student to demonstrate competence in research skills and procedures and the use of qualitative and quantitative research approaches, emphasis will be placed on data analysis, under the guidance of a faculty mentor. A field visit in industries will be required of every student. **Prerequisite:** A minimum grade of C- in STAT 405.

#### **PHYSICS COURSES**

### PHYS 105 Concepts of Physical Sciences I 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 106 Concepts of Physical Sciences II 2 credits

This is a non-mathematical course to interpret science to the liberal arts student. It deals with the concepts of chemistry, Geology and Astronomy and can be taken independently of PHYS 105 Concepts of Physical Sciences I. This course does not apply to a minor in physics or to a major in mathematics.

#### PHYS 151 General Physics I 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 MATH 101 or Departmental consent. Secondary school-level Physics strongly recommended.** 

#### PHYS 152 General Physics II 3 Credits

The course will cover thermal physics: expansion of solids, liquids and gases, scales of temperature, gas and resistance thermometers, perfect gas-absolute temperature, first law of thermodynamics, specific heats of gases at constant pressure and volume, kinetic theory of gases, derivation of the relation for pressure, mechanisms of heat transfer, co-efficient of thermal conductivity, black body, Stefan's law. electrostatic potential, electric field, magnetic field, electric and magnetic field, direct and alternating current, behavior of R, L and C, measurement of R, L optics; review of mirrors and lenses, defects in lenses, phenomena of interference, diffraction and polarization and their applications, natural and artificial radioactivity and its applications. Two lecture hours and a three hours laboratory session per week. **Prerequisite: A minimum grade of C- in PHYS 151.** 

#### PHYS 156 Vibrations and Waves 3 Credits

This course introduces the students to simple harmonic oscillations of mechanical systems; superposition of simple harmonic motions in one dimension and two perpendicular directions; damped oscillations, log-decrement, forced oscillations, resonance oscillations, modes of vibrations, reflection and transmission, 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; Doppler effect, electromagnetic waves, simple concepts of interference. Two lecture hours and a three hours laboratory session each week. *Prerequisite: A minimum grade of C- in PHYS 152*.

### PHYS 158 Introduction to Mechanics

3 Credits

This course introduces the students to Newtonian mechanics, Newton's laws of motion and their limitations, inertial frames, Galilean transformations, relative velocity, non-inertial frames, conservation laws, work - energy theorem, conservative force and potential energy, conservation of linear momentum, C.M frame of reference, collision of two particles, rocket, angular momentum and torque, conservation of angular momentum, Gravitational potential and field, Newton's law of gravitation, potential energy of two or more masses, 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. **Prerequisite: A minimum grade of C- in PHYS 152.** 

### 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 220 Optics

In this course, the students will be exposed to: the wave equation and its solutions, properties of waves, wave front, the electromagnetic spectrum, light sources; thermionic and atomic, characteristics of light; radiometric, and photometric quantities, and units, polarization, Joe's Matrix notation, polarization of matter, absorption optics; reflection and transmission angles and coefficients, Brewster Angle, principle of ray tracing, illustrations, Diffraction; general Kirchoff - Sommerfield 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. Two lecture hours and a three hours laboratory session each week. **Prerequisite: A minimum grade of C- in PHYS 156.** 

3 Credits

#### PHYS 225 Classical Mechanics 3 Credits

This course acquaints the students with the Lagrangian mechanics, generalized co-ordinates, holonomic systems, the calculus of variation, Hemilton's principle and Langrange's equation, Hamiltonian dynamics, Hamiltons 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 Kepler's laws, scattering in a central force field, Rutherford scattering cross-section. *Prerequisite: A minimum grade of C- in PHYS 158*.

#### PHYS 240 Modern Physics 3 Credits

This course covers relativity; Michelson-Morley experiment, postulates of special theory of relativity, Lorentz transformations, relativistic momentum and energy, mass-energy relation, energy and momentum of light, black - body radiation, Stefan - Boltzman law, Wien's displacement law, Rayleigh-Jeans distribution, Plancks distribution, photoelectric effect, X-ray diffraction, Compton effect, emission and absorption spectra, Bohr's theory of the hydrogen atom, principal quantum numbers, Pauli exclusion principle; Wave - particle duality, Heisenberg's theory, De Braglie Waves, uncertainty principle, scattering of alpha particles, atomic models, nuclear structure, binding energy, reactions; radioactivity, fission, fusion and elementary particles. Two lecture hours and a three hours laboratory session each week. **Prerequisite: A minimum grade of C- in PHYS 152.** 

### PHYS 250 Electricity and Magnetism 3 Credits

This course introduces the students to electric field and current: Coulomb's law, electric dipole, electric field in conductors and dielectrics, Gauss's law for electric field, symmetric charge distribution, electric potential, the gradient of potential, potential difference, Divergence and curl, capacitance, electric energy, forces and torques, combination of capacitors, dielectrics and polarization, dipole moment, permittivity, electric displacement, boundary relationships and continuity, current and circuits, resistivity, series and parallel resistors, Kirchoff's laws, conductivity, magnetic field and current, force between current elements, properties of magnetic fields, Biot-Savart law, static magnetic field of steady current, the ampere, current carrying loop, magnetic flux, the torque, the solenoid, Maxwell's first curl equation. Two lecture hours and a three hours laboratory session each week. Prerequisite: A minimum grade of Cin PHYS 158.

#### PHYS 331 Quantum Mechanics I 3 Credits

This course treats the inadequacies of classical mechanics and exposes the need for quantum mechanics, matter waves and their statistical interpretation, wave functions, state functions and their basic properties, time - dependent Schroendinger 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 eigenfuction and completeness relation, Hermitian operators, parity operator, commutation rule, equation of motion, time independent Schroendinger equation and the concept of stationary states, problems in one dimension; zero potential (the free particle case); infinite square well potential (particle in a box); potential step (reflectance and transmittance); potential barrier; rectangular potential well; periodic potential; linear Harmonic oscillator, the Schroindinger equation for spherically symmetric potential, angular momentum operators, hydrogen atom. Prerequisite: A minimum grade of C- in PHYS 225.

#### PHYS 341 Solid State Physics I 3 Credits

An introduction to crystal structure; crystalline and amorphous solids; lattice and basic unit cell; Wigner- Seitz cell; Bravais lattices; simple cubic, bcc, fcc structures, Miller indices; crystal diffraction, Bragg's diffraction law, incident beams of X-rays, electrons and neutrons, structure determination, reciprocal lattice and Brillouin zone, experimental methods, crystals of inert gases, ionic crystals, covalent crystals and metals, lattice vibrations; vibrations of monatomic and diatomic lattice, Phonon dispersion; lattice heat capacity; Phonon density of states; Einstein's and Debye's models, free electron gas, effect of temperature on the Fermi Dirac distribution, free electron gas in three dimensions, heat capacity, electrical and thermal conductivities, Weidman-Franz law, Hall effect. Two lecture hours and a three hours laboratory session each week.

Prerequisite: A minimum grade of C- in PHYS 240.

### PHYS 35 I Electromagnetic Theory I 3 Credits

This course builds on the concepts introduced in PHYS 250. The couse topics to be covered include: electrostatic forces, electric and magnetic fields, the laws of electromagnetism, differential and integral calculus of vector fields (the concept of flux and circulation), formal approach to electromagnetism; the Maxwell's equation; calculation of electric field E, flux around a point charge, Gauss's law, electric potential, the electrostatic equation (Poisson), general form solutions, magnetostatics; current, conservator of charge, magnetic forces, magnetic potential, Ampere's law; eletromagnetics: Maxwell's term, approach to solving the equations, electromagnetic radiation (free space wave equation), induction, electromagnetic force; flux rule, mutual and self-inductances, applications, circuit theory; inductances, capacitor, and resistance, generators, Kirchhoff's nodal voltage and mesh current methods, equivalent circuits, sample alternating current (AC) circuits, Wheatstone bridge. Two lecture hours and a three hour laboratory session each week. Prerequisite: A minimum grade of C- in **MATH 278.** 

#### PHYS 361 Mathematical Physics I 3 Credits

This course initiates the students to the use of differential equation in Physics. Topics to be covered include: Laplace transforms, Poisson-Helmbolts and Schrodinger, the vector field and properties of vectors; the gradient; divergence; curl and Laplacian operators (Solenoidal; Non-solenoidal); rotational and irrotational vectors, Gauss and Stoke's theorems, functions of a complex variable, summary of complex algebra, complex differentiation, and the Cauchy-Reimann equations, complex integration and Cauchy's integral theorem, Cauchy integral formula, the Laurent series, poles and the residues, applications of the residue theorem in evaluating integrals and series, special functions: Bessel, Beta, Gamma, Green's, Hermite, and Legendre, application of these functions in solving physics and engineering problems. **Prerequisite: A minimum grade of C- in MATH 371.** 

#### PHYS 400 Solar Energy Physics 3 Credits

In this course, the students will be exposed to energy and its various sources; the solar energy option, direct and indirect conversion of solar energy, model for sun, Radioactive emission from the sun, solar constant, solar time, solar angles, solar radiation analysis, measuring equipments, solar radiation data, solar radiation on a tilted surface, heat transfer analysis for solar energy utilization, optics of solar collectors, transmittance and reflectance, flat plate solar collectors, efficiency, antireflective and selective coatings, parabolic, cylindrical and spherical concentrators, materials and construction of collectors, storage of solar energy, thermodynamic conversion of Solar energy to work, solar photovoltaic cells, junction solar cell, spectral responsivity, characteristics, quantum efficiency, quantum and other losses in real solar cells, selected examples of solar cell improvements. Two lecture hours and a three-hour laboratory each week. Prerequisite: A minimum grade of C- in PHYS 240.

#### PHYS 403 Thermodynamics 3 Credits

Behaviour of gases: isothermo and adiabatic changes - PV diagrams; Joules law and experiment; departure from ideal gases; boyles temparature and critical constats: van der waals equation for real gases: Joules thermo dinamics; reversible and irreversible processes; carnot cycle; heat engines and refridgerators, their efficiency, entropy: principle of increase of entropy clausius in equality thermodynamical relations: applications of laws of thermodynamics; enthalpy; Helmholtz and Gibbs free energy, third law of thermodynamics.

\*Prerequisite: A minimum grade of C- in PHYS 361 or

Prerequisite: A minimum grade of C- in PHYS 361 or Departmental consent.

#### PHYS 405 Electronics 3 Credits

Circuit analysis: review of nodal and superposition theory, Thevenin's theorem, Norton's theorem, equivalent circuits; the theory of p-n semiconductor junction; behaviour of p-n junction diode, Zener, light emitting and photo conductive, photo resistive diodes; application of diodes; characteristics of bipolar junction transistors, transistor biasing, load-line, Q-point; transistor A-C equivalent circuits; small signal amplifiers, current and impedance; introduction to operational amplifiers, negative and positive feedback, survey on thyristors, diacs, triacs, field effect transistors (FETS) and UJTS. **Prerequisite: A minimum grade of C- in PHYS 351.** 

#### PHYS 425 Materials Science 3 Credits

The study of the physical, chemical, mechanical properties of metals, ceramics, plastics, and other engineering materials. Specific topics inlude: ferrours metals, non-ferrours metals, heat treatment, common polymers, microstructural examination, composite systems and corrosion, classification of materials: methods of classifying materials; atomic properties, bond types and associated properties, latice energy calculations, crystaline and amorphous materials, important crystal structures; mechanical properties, crystal defects, plastic deformation, mechanism of plastic flow, tensile fracture, ductile fracture, brittle failure, fatigue and creep failure; methods of testing materials strength and applications; thermo properties: thermo energy, heat capacity, expansivity, conductivity, and thermo electric effects; magnetic materials: examples of paramagnets and feromagnets; dielectics, piezoelectric and feroelectric materials; optical properties, dispersion and absorption; microstructure, partial and solid solubility, equilibrium face diagrams and principles of difusion.

#### **DEPARTMENT OF TECHNOLOGY**

#### **FACULTY**

Role, J. - Chairperson

Adeogun, J.

Ayiemba, J.

Bett, N.

Kitur, E.

Leleiy, W.

Soi, E.

Walela. P.

Email: hod technology@ueab.ac.ke

#### **PHILOSOPHY**

In recognition of Jesus Christ as the Master craftsman, the purpose of technology studies in a Seventh-day Adventist Institution is to train students to use their hands, head and heart in applying science and technology to serve the noble goals of mankind. Society is becoming increasingly more dependent on technology for transport, communication, information processing, manufacturing etc. It is in these areas that the department will make significant contributions.

#### **MISSION**

To train students to diligently apply scientific principles in finding solutions to the challenges facing society in an ever-changing world, and to produce quality graduates prepared to use their hands, head and heart in service to God and mankind.

#### **VISION**

To be the leading department in providing world-class programs in automotive, building construction, computing and electronics technology.

#### **EXPECTED LEARNING OUTCOMES**

Programmes in the Department of Technology are designed to:

- Prepare students as instructors in technology oriented courses in secondary and technical institutes in the fields of Automotive Technology, Building Construction Management, Computing, Drafting, Electrical, Electronics, Software Development, Welding and Wood Technology.
- 2. Provide the education and training necessary to become entrepreneurs in various fields of Technology.
- 3. Equip students with the requisite technical skills needed for employment in industry and institutions.

- 4. Prepare students for the rigors of postgraduate studies.
- 5. Inculcate the basic principles of practical Christianity such as honesty, dignity of work, and respect of authority and government.
- 6. Provide an academic environment that emphasizes and advocates critical thinking and research.
- 7. Foster collaboration with other institutions and industries.

#### **DEGREES OFFERED BY THE DEPARTMENT**

- 1. Bachelor of Science in Technology (Automotive)
- 2. Bachelor of Technology in Automotive
- 3. Bachelor of Science in Technology (Electronics)
  - i) Communication Option
  - ii) Industrial Option
- 4. Associate degree in Building Construction
- 5. Associate degree in Electronics
- 6. Minor in Electronics Technology

#### **CAREER OPPORTUNITIES**

- Automotive Technologists qualify for management positions in customer relations, credit and finance personnel, sales, marketing, inventory control and fleet management. They find employment as field service personnel, diagnostic tool and service manual developers, dealership managers, warranty auditors, or automotive technology instructors.
- 2. Electronics 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, in semi-conductor industries, in the fields of radio, television, telecommunication, entrepreneurs of electronics industry and as electronics instructors in technological colleges and technical institutes.
- 3. Building Construction Management graduates qualify for positions leading to project managers, supervisors, clerk of works, sub-contractors, estimators, construction technicians, and construction superintendent. They may find employment as material handlers, construction estimators, lumber sales representatives, or project managers.

#### **ENTRANCE REQUIREMENTS**

#### 1. Direct entry requirements

In addition to meeting University minimum entrance requirements, students entering the Department of Technology, must have at least a C+ (plus) in mathematics and physics.

#### 2. Interdepartmental transfer

All students wishing to transfer to Technology must attain a minimum grade of C+ (plus) in TCED 191 and PHYS 151. In addition, the students must officially transfer before they are allowed to take upper division Technology course levels of 300 and above.

#### **GRADUATION REQUIREMENTS**

- 1. A minimum of 150 credits of required courses and upon completion of the subjects listed.
- 2. An overall cumulative GPA of 2.00 is required to graduate.
- 3. A GPA of 2.25 is required for the Concentration and the Core. A minimum grade of C for each course in the Concentration and the Core is required.

### BACHELOR OF SCIENCE IN TECHNOLOGY (BST) AUTOMOTIVE

#### **SUMMARY**

General Education	39
Specialization	112
Cognates	15
Total	156 credits

#### **COURSE LISTING**

### GENERAL REQUIREMENTS FOR TECHNOLOGY STUDENTS

#### **GENERAL EDUCATION COURSES** 39 credits

Automotive and Electronics majors are exempted from the following courses from the General Requirement Section.

EDUC 215	Introduction to Philosophy	
	of Christian Education	2
INSY 107	Information Technologies	
	for Today	2
MGMT 103	Basic Management and	
	Entrepreneurial Skills	2
MATH 101	Pre-Calculus	3
OFTE 124	Keyboarding	0

#### SPECIALIZATION COURSES

112 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.

AUBO 131	Fundamentals of Auto Body Repair	3
AUBO 212	Auto Body Refinishing I	3
AUBO 221	Major Panel Repair	3
AUBO 311	Major Collision Repair	3
<b>AUBO 322</b>	Auto Body Refinishing II	2
AUTO 114	Power Technology	2
AUTO 211	Automotive Engines I	3
<b>AUTO 222</b>	Automotive Engines II	3
AUTO 23 I	Automotive Electricity	3
AUTO 311	Automotive Air-conditioning	2
<b>AUTO 322</b>	Automotive Diesel	3
AUTO 331	Drive Trains and Suspension	4
AUTO 411	Engine Performance I	3
AUTO 422	Engine Performance II	3

Software Applications in	
Technology	3
Fundamentals of Electronics	4
Technical Drawing	2
Computer Aided Drawing	2
	2
Θ,	2
	2
Machine and Tool Maintenance	3
Practicum in Technology	1
Θ,	2
	2
,	
Safety Education	2
Introduction to Fluid Mechanics	2
Advanced Practicum in Technology	1
	2
	2
	3
	2
	2
	2
	2
Industrial Attachment	4
Engineering Mathematics I	
	3 3 3 2
	3
	3
Bench Woodworking	2
	Fundamentals of Electronics Technical Drawing Computer Aided Drawing Welding Technology Workshop Practice Engineering Materials Machine and Tool Maintenance Practicum in Technology Philosophy of Technical Education Industrial Safety  Safety Education Introduction to Fluid Mechanics Advanced Practicum in Technology Technology Entrepreneurship Industrial Economy Thermodynamics Senior Project I Senior Project II Shop Planning and Organization Fleet Management Industrial Attachment Engineering Mathematics II Engineering Mathematics III Engineering Mathematics IV

#### **COGNATE COURSES**

#### 15 credits

١	COUNTIL	DOCKALE COCKSES		
	ACCT 110		Bookkeeping and Accounting	3
	CHEM 121		General Chemistry I	3
	MGMT 230		Foundations of Management	3
	MGMT 325		Human Resource Management	3
	PHYS 151		General Physics I	3

#### **BACHELOR OF TECHNOLOGY (BT) AUTOMOTIVE**

#### **SUMMARY**

General Education Courses39Specialization94Cognates17

Total 150 Credits

SPECIALIZATION COURSES	94 credits

JI LUIA			4163
AUBO I	31	Fundamentals of Auto Body Repair	3
AUBO 2	212	Auto Body Refinishing I	3
AUBO 2	221	Major Panel Repair	3
AUBO 3	3	Major Collision Repair	3
AUBO 3	322	Auto Body Refinishing II	2
AUTO I	14	Power Technology	2 3
AUTO 2	2	Automotive Engines I	3
AUTO 2	222	Automotive Engines II	3
AUTO 2	231	Automotive Electricity	3 2 3
AUTO 3	3	Automotive Air-conditioning	2
AUTO 3	322	Automotive Diesel	
AUTO 3	331	Drive Trains and Suspension	4
AUTO 4	111	Engine Performance I	3
AUTO 4	122	Engine Performance II	3
COMP	130	Software Applications in	
		Technology	3
ELCT I		Fundamentals of Electronics	4
MECT I		Technical Drawing	2
MECT 2		Computer Aided Drawing	2
MTLS 12		Welding Technology	2
MTLS 33	32	Workshop Practice	2
TCED I		Engineering Materials	2
TCED 2		Machine and Tool Maintenance	3
TCED 2		Practicum in Technology	1
TCED 2		Philosophy of Technical Education	2
TCED 2	30	Industrial Safety	2
Or			
TCED 2		Safety Education	2
TCED 3		Introduction to Fluid Mechanics	2
TCED 3		Advanced Practicum in Technology	1
TCED 3		Technology Entrepreneurship	2
TCED 3		Industrial Economy	3
TCED 4		Thermodynamics	3
TCED 4	11	Senior Project I	2

TCED 422	Senior Project II	2
TCED 424	Shop Planning and Organization	2
TCED 425	Fleet Management	2
TCED 430	Industrial Attachment	4
TCEM III	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
	<u> </u>	

#### COGNATE COURSES 17 credits

ACCT I I 0	Bookkeeping and Accounting	3
CHEM 121	General Chemistry I	3
MGMT 230	Foundations of Management	3
MGMT 325	Human Resource Management	3
PHYS 151	General Physics I	3

#### **BACHELOR OF SCIENCE IN TECHNOLOGY (BST) ELECTRONICS**

#### **SUMMARY**

General Education Courses	39
Specialization	88
Communication/Industrial Option	18
Cognates	12
Totals	157 Credits

SPECIALIZA	П	ON COURSES 88 cre	dits
AUTO 114		Power Technology	2
CMMT 421		Analog and Digital Filters	3
COMP 130		Software Applications in	
		Technology	3
COMP 321		Digital Integrated Circuits	4
COMP 333		Networking and	
		Web Development	3
ELCT		Fundamentals of Electronics	4
ELCT 122		Solid State Devices and Circuits	4
ELCT 211		Operational Amplifiers	
		and linear ICs	3
ELCT 312		Electronics Fabrication	2
INEL 222		Instrumentation and Measurement	2
INEL 232		Electrical Machines	3
INEL 313		Electrical Installation and Costing	3
MECT 121		Technical Drawing	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 313		Object Oriented	
		Programming in Java	3
TCED III		Engineering Materials	2
TCED 211E		Practicum in Technology	-
TCED 220		Philosophy of Technical Education	2
TCED 230		Industrial Safety	2
TCED 321E		Advanced Practicum in Technology	-
TCED 325		Technology Entrepreneurship	2
TCED 330		Industrial Economy	3
TCED 410		Thermodynamics	3
TCED 411		Senior Project I	2
TCED 422		Senior Project II	2
TCED 430		Industrial Attachment	4
TCEM		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
COMMU	NI!	CATION OPTION 18 Cre	odia.
. COMMO	IAI	CATION OPTION 18 Cre	cuits

CMMT 321	Communication Principles	3	
CMMT 332	Television Circuits	3	
CMMT 333	Digital RF Systems and Circuits	3	
CMMT 411	Sound and Video Production	3	
CMMT 412	Telecom and Packets Networks	3	
CMMT 423	Mobile and Satellite		
	Communications	3	

#### 2. INDUSTRIAL

ELECTRONICS OPTION 18 Cred			edits
COMP 332		Microprocessor and	
		Microcontroller Circuits	3
INEL 33 I		Control I	3
INEL 410		Industrial Elect. Devices, Circuits	
		and Machine Drives	3
INEL 412		Control II	3
INEL 420		Power Systems	3
INEL 423		Programmable Logic Controllers	3

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# COGNATESACCT 110Bookkeeping and Accounting3CHEM 121General Chemistry I3MGMT 230Foundations of Management3PHYS 151General Physics I3

#### MINOR IN ELECTRONICS

#### **SUMMARY**

Specialization Courses 23 Elective Courses 8-9

Totals 31-32 Credits

#### SPECIALIZATION COURSES 23 Credits COMP 321 Digital Integrated Circuits Fundamentals of Electronics 4 ELCT | | | **ELCT 122** Solid State Devices and Circuits ELCT 211 Operational Amplifiers and Linear ICs 3 2 ELCT 312 Electronics Fabrication 3 INEL 313 Electrical Installation and Costing MECT 232 Computer Aided Drawing Practicum in Technology TCED 211E

ELECTIVE COURSES 8-9 cred				
CMMT 332		Television Circuits	3	
CMMT 421		Analog and Digital Filters	3	
COMP 333		Networking and		
		Web Development	3	
INEL 222		Instrumentation and		
		Measurements	2	
INEL 232		Electrical Machines	3	

#### **UPGRADING PROGRAMS**

GUIDELINES FOR ENTRY INTO TECHNOLOGY DEGREE PROGRAMS FOR KNEC DIPLOMA HOLDERS (OR ITS EQUIVALENT)

### BACHELOR OF SCIENCE IN TECHNOLOGY (AUTOMOTIVE)

This program is tailored to meet the needs of Technology professionals who hold diploma qualifications in Mechanical/ Automotive Technology and who wish to upgrade to degree level. The upgrading program is expected to take  $2 \ \frac{1}{2}$  to 3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements:

- 1. A minimum grade of C (plain) at the Kenya Certificate of Secondary Education (KCSC) 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, updated curriculum vitae (CV).

#### **CREDIT TRANSFER**

COLIRSE

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:

17 Credits

COURSE	17 Credits		
HIST III	Concepts of World Civilization	2	
KISW 108	Introduction to Kiswahili	2	
FREN 100	Beginning French II	2	
	Vocational Skills	1	
PEAC 107	Physical and Recreational Activities	-	
ECON 201	Introduction to Principles of		
	Economics	2	
OFTE 120	Introduction to Keyboarding	0	
ENGL 151	Introduction to Literary		
	Appreciation	2	
FCSC 207	Family Issues	2	
SOCI 119	Principles of Sociology	-	
PSYC 101	Introduction to Psychology	2	
AGRI 106	Principles of Agricultural Technology	2	

### RECOMMENDED CORE/CONCENTRATION/ COGNATES COURSES FOR CREDIT TRANSFER

COURSE 30 Cre		
AUBO III	Fundamentals of Auto Body Repair	3
AUTO 211	Automotive Engines I	3
MECT 131	Technical Drawing	2
ELCT	Fundamentals of Electronics	4
TCED 141	Engineering Materials	2
TCED 200	Fluid Mechanics	2
TCED 250	Machine and Tool Maintenance	3
TCED 281A	Practicum in Technology I	
	(Automotive)	-1
AUTO 221	Automotive Electricity	3
COMP 130	Software Applications in	
	Technology	3
MATH 191	Engineering Mathematics I	3
MATH 192	Engineering Mathematics II	3

### RECOMMENDED COURSES FOR CHALLENGE EXAMINATION

TCED 325	Technology Entrepreneurship	2
MTLS 242	Welding Technology	2
AUTO 321	Drive Trains and Suspension	4
TCED 462	Thermodynamics	3

<sup>\*</sup>The challenge examination shall constitute theory and practical

#### **DIPLOMA HOLDERS (OR ITS EQUIVALENT)**

### BACHELOR OF SCIENCE IN TECHNOLOGY (ELECTRONICS)

This program is tailored to meet the needs of Technology professionals who hold diploma qualifications in Communication or Industrial Engineering Technology and wish to upgrade to degree level. The upgrading program is expected to take  $2 \frac{1}{2}$  to 3 years to complete.

#### **ADMISSION REQUIREMENTS**

Applicants must meet the following requirements:

- I. A minimum grade of C (plain) at the Kenya Certificate of Secondary Education (KCSC) or its equivalent.
- 2. A diploma in Communication or Industrial 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:

COURSE 17 Cred			
HIST III		Concepts of World Civilization	2
KISW 108		Introduction to Kiswahili	2
FREN 100		Beginning French II	2
		Vocational Skills	-1
PEAC 107		Physical and Recreational Activities	-1
ECON 201		Introduction to Principles of	
		Economics	2
OFTE 120		Introduction to Keyboarding	0
ENGL 151		Introduction to Literary	
		Appreciation	2
FCSC 207		Family Issues	2
SOCI 121		Principles of Sociology	2
PSYC 101		Introduction to Psychology	2
AGRI 106		Principles of Agricultural	
		Technology	2

#### RECOMMENDED CORE/CONCENTRATION/ COGNATES COURSES FOR CREDIT TRANSFER

•	COURSE 30 Cred			
	COMP 130		Software Applications in	
			Technology	3
	ELCT		Fundamentals of Electronics	4
	ELCT 121		Solid State Devices and Circuits	4
	INEL 202		Instrumentation and Measurements	2
	INEL 22 I		Electrical Machines	3
	INEL 222		Electrical Installation and Costing	3
	MATH 191		Engineering Mathematics I	3
	MATH 192		Engineering Mathematics II	3

MECT 131	Technical Drawing	2
TCED 141	Engineering Materials	2
TCED 281E	Practicum in Technology I	
	(Electronics)	-1

### RECOMMENDED COURSES FOR CHALLENGE EXAMINATION\*

Students are allowed to challenge 10 credits only

COURSE		Credits		
	COMP 311	Digital Circuits and Microprocessor	4	
	ELCT 23 I	Operation al Amplifiers and		
		Linear ICs	4	
	MECT 236	Electrical and Electronic Drawing	2	
	MTLS 242	Welding Technology	2	
	TCED 325	Technology Entrepreneurship	2	
	TCED 462	Thermodynamics	3	

<sup>\*</sup>The challenge examination shall constitute theory and practical

#### **ASSOCIATE DEGREES**

#### **GENERAL EDUCATION COURSES** 25 Credits

See details under the General Education section of the Bulletin.

#### **ASSOCIATE DEGREE (ASC) IN ELECTRONICS**

#### **SUMMARY**

General Education Courses	25
Specialization Courses	47
Cognate Courses	9

Totals 81 Credits

SPECIALIZATION COURSES 47 Cred					
COMP 130		Software Applications			
		in Technology	3		
COMP 321		Digital Integrated Circuits	4		
ELCT		Fundamentals of Electronics	4		
ELCT 122		Solid State Devices and Circuits	4		
ELCT 211		Operational Amplifiers			
		and Linear ICs	3		
ELCT 312		Electronics Fabrication	2		
INEL 232		Electrical Machines I	3		
INEL 313		Electrical Installation and costing	3		
MECT 121		Technical Drawing	2		
MECT 232		Computer Aided Drawing	2		
SDEV 211		Software Engineering Principles	2		
TCED 211E		Practicum in Technology	-1		
TCED 220		Philosophy of Technical Education	2		
TCED 221		Associate Project I	-1		
TCED 222		Associate Project II	-1		
TCED 230		Industrial Safety	2		
TCED 321E		Advanced Practicum in Technology	-1		
TCEM III		Engineering Mathematics I	3		

#### **COGNATE COURSES**

ACCT 110

CHEM 121 PHYS 151

_	7 6100	
	Bookkeeping and Accounting	3
	General Chemistry	3
	General Physics I	3

9 Credits

ASSOCIATE DEGREE	(ASC) IN	<b>BUILDING</b>	COGNATE C	OURSES 12	Credits
CONSTRUCTION			ACCT IIO	Bookkeeping and Accounting	3
SUMMARY			CHEM 121	General chemistry I	3
General Education Courses	25		MATH 191	Engineering Mathematics I	3
Specialization Courses	38		PHYS 151	General physics I	3
Cognate Courses	12				
Totals	75 Credits				

SPECIALIZATION COURSES 38 Credits		dits
AUTO 114	Power Technology	2
CNST 102	Construction Materials	3
CNST 225	Structures I	3
CNST 264	Concrete Technology	2
CNST 265	Construction Technology Practice I	2
CNST 270	Construction Management	2
CNST 285	Building Finishing	2
CNST 292	Construction Law	2
ELCT 105	Fundamentals of Electricity	2
MECT 121	Technical Drawing	2
MECT 275	Architectural Drawing I	3
MTLS 122	Welding Technology	2
TCED 141	Engineering Materials	2
TCED 211C	Practicum in Technology	1
TCED 220	Philosophy of Technical Education	2
TCED 221	Associate Project I	1
TCED 222	Associate Project II	1
TCED 230	Industrial Safety	2
WOOD 181	Bench Woodworking	2

#### **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. I lecture hour and 2 three-hour laboratories per week. **Prerequisite: MTLS 122.** 

### AUBO 212 Auto Body Refinishing I 3 Credits

A study of the fundamentals of spray equipment, spray materials and their application in surface preparation. Emphasis in the refinishing materials and procedures for spot, panel and complete paint jobs using lacquer, enamel, acrylic, base-coat and multi stage finishes. I lecture hour and 2 three-hour laboratories per week. **Prerequisite: AUBO 131.** 

#### AUBO 221 Major Panel Repair 3 Credits

Further study on sectioning, panel repair and alignment, fixed and movable glass replacement and preparation for final finish. I lecture hour and 2 three-hour laboratories per week. **Prerequisite: AUBO 212.** 

#### AUBO 311 Major Collision Repair 3 Credits

A study of major repair covering skills, tools, heavy equipment, frame alignment within accepted tolerances and standards, and estimating. Emphasis is on panel replacement, clipping, and auto frame straightening. I lecture hour and 2 three-hour laboratories per week. **Prerequisite: AUBO 221.** 

### AUBO 322 Auto Body Refinishing II 2 Credits

Further study in automotive refinishing. Emphasis on advanced spray-gun technique for custom finishes with stripping, taping, air brush, metal flakes, and gold leaf. I lecture hour and I two-hour laboratory per week. **Prerequisite: AUBO 212.** 

#### AUTO 100 Personal Auto Care | | 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. I lecture hour and I three-hour laboratory per week.

#### AUTO 110 Automobile Driving I 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. I lecture hour and 2 hours of practical driving sessions per week. Prerequisites: Must be 18 years old or above with passport or National Identification card.

#### **AUTO 114** Power Technology 2 Credits

A study of power transmission sources with regards to internal combustion principles and energy analysis as applies to outdoor power gasoline engines. I lecture hour and I three-hour laboratory per week.

#### AUTO 211 Automotive Engines I 3 Credits

A study of automotive engine fundamentals. Emphasis is given to design, types, internal component operations and systems. 2 lecture hours and I three-hour laboratory per week. **Prerequisite: AUTO 114.** 

#### **AUTO 222** Automotive Engines II 3 Credits

Further study in the theory and comprehensive repair of automotive engines. Emphasis in bearing, piston, and valve problems, related accessories, and engine diagnostic procedures. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisite: AUTO 211.** 

#### AUTO 23 I Automotive Electricity 3 Credits

The study of automotive electrical and electronic systems. Emphasis in starting, charging, and ignition systems, electrical and electronic diagnostic procedures, repairs, and adjustments. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisites: ELCT 111 and AUTO 211.** 

#### AUTO 311 Automotive

Air Conditioning 2 Credits

A study of thermodynamics of heating ventilation and air conditioning system (HVAC) and controls. Emphasis is given to inspection and repair of compressor, dryer, evaporator, condenser, and controls. I lecture hour and I three-hour laboratory per week. **Prerequisite: AUTO 231.** 

#### **AUTO 321** Automotive Diesel 3 Credits

A study of overall diesel engine principle as regards engine types, construction and management, fuel and injection principles, cooling and lubrication, application (light, medium and heavy duty). 2 lecture hours and I three-hour laboratory per week. **Prerequisite: AUTO 222.** 

### AUTO 331 Drive Trains and Suspension 4 Credits

This is a study of automotive clutches, transmissions/transaxles, drivelines, differentials, brakes, suspension springs and shocks, steering, tyres, wheel balancing and alignment. 2 lectures and 2 three-hour laboratories per week. **Prerequisite: AUTO 211.** 

#### **AUTO 411** Engine Performance I 3 Credits

A study of automotive tune-up fundamentals. Emphasis is given to fuel, electrical, vacuum and air systems. Disassembly, inspection, and reassembly of distributors, ignition control devices, and carburetors. 2 lecture hours and I three-hour laboratory per week. *Prerequisites: AUTO 222 and AUTO 231*.

#### AUTO 422 Engine

Performances II 3 Credits

A study of electronic fuel injection and ignition systems, throttle body, engine management systems and computer diagnostics. 2 lecture hours and I three-hour laboratory per week. **Prerequisite: AUTO 411.** 

#### **BUILDING CONSTRUCTION TECHNOLOGY**

### CNST 102 Construction Materials

3 Credits

This course covers the basic principle of the nature, testing and classification, structure and properties of construction materials as cement, clay, metals, stones, sand, wood and other special materials. 2 lecture hours and 1 three-hour laboratory per week.

### CNST 110 Residential Construction 3 Credits

This course covers the basic principles of residential construction including blueprint reading, plot layout and excavation, foundations and framing, exterior finishing, roof layout and application of roofing, stair layout and interior finishing. 2 lecture hours and 1 three-hour laboratory per week.

#### CNST 115 Masonry Construction 2 Credits

This course covers the basic principles of masonry and concrete construction including the various types of concrete structures as footing, piers, columns, walks and driveways, along with masonry structures such as brick and block walls and foundations. I lecture hour and I three-hour laboratory per week

#### **CNST 130** Plumbing Construction 3 Credits

This course covers the basic principles of plumbing including design and layout of plumbing systems, rough-in methods, fixture installation, septic system layout and installation and maintenance of existing systems. I lecture hours and I three-hour laboratory per week.

#### CNST 140 Home Maintenance 2 Credits

A course designed to help the future and present homeowner save on home repairs. Emphasis is placed on maintenance, tools, supplies, and procedures followed in making home repairs. I lecture hour and I three-hour laboratory per week.

#### CNST 225 Structures I 3 Credits

Introduction to structural design; forces, free body diagrams, static force equilibrium for statically determinate structures, member forces in pin-jointed trusses, beam section properties, bending moment, shear force and deflection diagrams for beams, beam stresses in bending and shear, design of steel beams for bending, shear and deflection. I lecture hour and 2 three-hour laboratory per week.

#### CNST 226 Structures II 3 Credits

Principles of structural design for strength, stability and serviceability, load and design of beams and columns, bolted and welded joints in steel frame; design of reinforced columns and detailing, concrete beams and slabs for bending, shear and deflection; footings and other elements. 2 lecture hours and I three-hour laboratory per week. **Prerequisite: CNST 225.** 

#### CNST 236 Survey 2 Credits

Representation of land on maps and plans and vice versa. Chain surveying, linear measurements, and overcoming obstacles. Principle of levelling, types of levelling instruments, contour lines, setting out of sewers and drainage, buildings, roads, railways, sectioning: longitudinal and cross sections. I lecture hour and I three-hour laboratory per week.

# CNST 26 I Construction Management and Planning

Study of the fundamental activities associated with the organization and management of construction projects. Course work investigates the functions of both the general contractor and the professional manager, including planning, scheduling and expediting construction. The course includes application of computer-based scheduling and planning tools. I lecture hour and I three-hour laboratory per week. **Prerequisite: CNST 102.** 

3 Credits

#### CNST 264 Concrete Technology 2 Credits

This course covers the science of concrete technology, which includes the selection, mix, use and storage of materials for the production of concrete: Tests and quality control on different mixtures are covered. I lecture hour and I three-hour laboratory per week. **Prerequisite: CNST 102.** 

# CNST 265 Construction Technology and Practice I

Introduction to building technology concept: in relation to building industry and the building team. Site and soil investigation, assessment and testing. Site clearing, layout considerations, lighting and electrical supply, and site office accommodation. Principles of setting a building, including setting out, layout and excavation. Construction equipment and Building demolition. I

2 Credits

# CNST 266 Construction Technology and Practice II 2 Credits

lecture hour and I three-hour laboratory per week.

To familiarize the student with basic principle of masonry, the material properties, design procedures, classification, types, special units, structural, characteristic, physical properties, color texture and code requirements for masonry. Includes class practices and field visits. I lecture hour and I three-hour laboratory per week. **Prerequisite: CNST 265.** 

### CNST 270 Construction Management 2 Credits

Construction business policies and problems. Job organization and management, estimating and bidding project planning and control. Inspection procedures. I lecture hour and I three-hour laboratory per week. *Prerequisites: 10 credits of construction.* 

#### **CNST 285** Building Finishing 2 Credits

This course covers construction of exterior and interior finishing for residential and commercial construction. This course will be held at an on-site project location. Landscaping, fences, gates and pavements are considered. I lecture hour and I three-hour laboratory per week. **Prerequisite: CNST 270.** 

#### CNST 292 Construction Law 2 Credits

This course introduces the use of model building codes (BOCA, IBC, KENYA CODE), reference standards, and the application of the code to structures and occupancies. Topics include construction classification, building limitations, special use and occupancy requirements, egress, fire considerations, structural, mechanical, plumbing and energy conservation requirements. 2 lecture hours per week. *Prerequisite: CNST 270.* 

#### CNST 335 Quantity Survey 2 Credits

Historical background, functions of the quantity surveyor; introduction to Kenya Standard Method of Measurement of Building Works, its importance and application; methods of recording dimensions, checking and correlating plans and specifications; principles of measurement and billing; Bill of Quantities format. I lecture hour and I three-hour laboratory per week. **Prerequisite: CNST 265.** 

### CNST 340 Soil Mechanics and Hydraulics 3 Credits

Soil Mechanics: Geological formation of soils, soil as a 3-phase system, broad and cassagrandes classification. Afterberg limits, soil/moisture relationships, effective stresses, shear strength, compaction, consolidation, Terzaghic formulae for bearing capacities, site investigation. Basic hydraulics, Bernoulli's Equation, orifices, notches and weirs, flow in pipes, pipe losses, hydraulic grade and total energy lines. I lecture hour and I three-hour laboratory per week.

#### **CNST 389** Finish Carpentry 3 Credits

Introduction to the methods and practices of interior and exterior finishing, including construction and installation of door, windows, floors and cabinets. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisite: WOOD 387.** 

### CNST 402 Environmental Systems 2 Credits

Study of the components and systems used to control the environment of modern buildings. This course covers plumbing, electrical, fire protection, lighting, acoustics, transportation and signalling systems, heating and air conditioning systems required in today's buildings, and how each component system contributes to the total controlled environment necessary in sophisticated building structures. I lecture hour and I three-hour laboratory per week. **Prerequisite: CNST 265.** 

### CNST 435 Construction Management Internship 2 Credits

This course provides the student with work site experience in which skills and knowledge learned in previous courses may be applied. These internship experiences include safety procedures, concrete forming, framing, exterior trim/finish, interior trim, insulating, and drywall installation. **Prerequisite: CNST 402.** 

#### **ELECTRICITY AND ELECTRONICS TECHNOLOGY**

### 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 I three-hour laboratory per week. **Prerequisite: ELCT 211.** 

#### CMMT 332 Television Circuits 3 Credits

Study of television transmission principles, focusing on the theory and operation of monochrome and color television systems, LCD and LED screen TV. It includes antenna systems, high and low voltage power supplies, picture tube and vertical detection systems. Laboratory exercise will emphasize troubleshooting techniques of the systems. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisite: ELCT 211.** 

### CMMT 333 Digital RF Circuits and Systems 3 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. 2 lecture hours and I three-hour laboratory per week. **Prerequisite: CMMT 321.** 

### 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 I three-hour laboratory per week. *Prerequisite: CMMT* 333.

### CMMT 421 Analog and Digital Filters

3 Credits

Survey 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 I three-hour laboratory per week. **Prerequisite: Elect 211.** 

### CMMT 423 Mobile and Satellite Communications 3 Credits

Sound and

This course covers satellite and mobile communications as applied in electronic communications. Fibre optic communication is covered, including Link Budgets for both Fibre optics and satellite. 2 lecture hours and 1 three-hour laboratory per week.

### Prerequisite: CMMT 412.

CMMT 411

Video Production 3 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. 2 lecture hours and 1 three-hour laboratory per week.

Prerequisite: CMMT 322.

### COMP 130 Software Applications in Technology 3 Credits

This course introduces the student to computer fundamentals and applications, concepts and tools they need for research and presentation in a technological environment. Applications include keyboarding, word-processing, PowerPoint, Access, Excel, Matlab etc. 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 I three-hour laboratory per week. **Prerequisites: ELCT 121 and TCEM 122.** 

### COMP 332 Microprocessor and Microcontroller

Circuits 3 Credits

A study of microprocessor, microcontrollers, computer hardware and interfacing, embedded systems, programming and their applications. 2 lecture hours and I three-hour laboratory per week. **Prerequisite: COMP 321.** 

### COMP 333 Networking and Web Development 3 Credits

Strategies in wired and wireless networking, hardware structure and design, server applications, website design and development, management and security concerns, client-server interactions, application layer protocols, TCP/IP protocol suite. Creating WWW sites and domains. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisite: COMP 130.** 

### ELCT 100 Basic Electronics Maintenance I 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. I lecture hour and I three-hour laboratory per week. Credits earned in this course do not count for electronics majors and minors.

#### **ELCT 102** Technology for Pastors | 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. I lecture hour.

### ELCT III Fundamentals of Electronics 4 Credits

Study of the fundamentals of electronics 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 basic electronic test equipment. 3 lecture hours and 1 three-hour laboratory per week.

### ELCT 122 Solid State Devices and Circuits 4 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. 3 lecture hours and 1 three-hour laboratory per week. **Co-requisite to ELCT 111.** 

#### ELCT 211 Operational Amplifiers and Linear ICs 4 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. 3 lecture hours and 1 three-hour laboratory per week. **Prerequisite: ELCT 122.** 

#### **ELCT 312** Electronics Fabrication 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 will be placed on layout, testing, and finishing the selected project. I lecture and I three-hour laboratory per week. **Prerequisites: COMP 321, ELCT 211 and MECT 232.** 

#### ELCT 391 Alternative Energy Sources 3 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 and 1 three-hour laboratory per week. **Prerequisite: Departmental Approval.** 

### INEL 222 Instrumentation and Measurements 3 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. 2 lecture hours and I three-hour laboratory per week. **Prerequisites: ELCT 211 and COMP 321.** 

#### **INEL 232** Electrical Machines 3 Credits

This course covers the basic principles of electromagnetism, transformers (types, construction, operation and equivalent circuits), DC and AC machines: types, construction, performance, motor/generator characteristics, starting and braking methods, speed control and their applications, and special machines e.g. stepper motors, etc.) 2 lecture hours and I three-hour laboratory per week. **Prerequisite: ELCT 111.** 

### INEL 313 Electrical Installation and Costing 3 Credits

Electrical practices including code requirements (IEE), design and layout of electrical circuits, wiring methods, and commercial applications. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisite: INEL 232.** 

#### INEL 331 Control I 3 Credits

An introduction to linear control and basic principles of control system modelling, response, Laplace transforms, dynamic system models, block diagram models, steady-state errors and stability. Lab exercises make use of MatLab. 2 lecture hours and I three-hour laboratory per week. **Prerequisites: TCEM 122** and INEL 232.

#### INEL 412 Control II 3 Credits

This course covers root locus analysis, frequency response, design and analysis of 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, Circuits and Machine Drives

Introduction to power electronic devices: power diodes, power transistors, MOSFETs, Thyristor family and IGBT. 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. 2 lecture hours and I three-hour laboratory per week. **Prerequisite: INEL 331.** 

3 Credits

#### INEL 420 Power Systems 3 Credits

An understanding economics of power generation, generating machinery, excitation systems, auxiliary supplies, overhead lines, underground cables and the power system layout and control. 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 I three-hour laboratory per week. **Prerequisite: INEL 331.** 

### 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 313 Object Oriented Programming in Java 3 Credits

Java is one of the fast evolving Object Oriented programming languages. This course covers, Java Applications, Classes and Objects, Control Statements, Methods, Arrays, Classes and Objects, Object-Oriented Programming: Inheritance, Polymorphism and GUI. 2 lecture hours and 1 three-hour laboratory per week. **Prerequisite: SDEV 222.** 

#### **DRAFTING TECHNOLOGY**

#### MECT 121 Technical Drawing 2 Credits

The fundamentals of drawing as applied to mechanical engineering problems. Orthographic projections, auxiliary and sectional views shape, and size description, isometric view, sketching and detail drawing, with an introduction to computer-aided drawing. I lecture hour and I three-hour laboratory per week.

#### MECT 132 Mechanical Drawing I 2 Credits

Layout of gears and cams, interpretation and drawing of weld symbols. Principles of descriptive geometry. I lecture hour and I three-hour laboratory per week. **Prerequisite: MECT 121.** 

#### MECT 133 Mechanical Drawing II 2 Credits

Limit dimensioning and pipe representation. Production drawings and computer drafting. I lecture hour and I three-hour laboratory per week. **Prerequisite: MECT 132.** 

I Credit

I Credit

### MECT 232 Computer Aided Drawing 2 Credits

Study of the basic concepts and drawing techniques using CAD software for technology courses. Emphasis on architectural, electronic/electrical and mechanical parts and systems. I lecture hour and I three-hour laboratory per week. **Prerequisite: MECT 121.** 

3 Credits

### MECT 275 Architectural Drawing I

Floor plans, pictorial views, elevations and sections of buildings including positions of rooms and sizes, doors, windows, fire places, closets and other features of the building. Symbols used for presentation of floor-plan drawings including electrical installation layout. Working drawings: basement plans, typical sections through buildings of various materials, elevations, dimensioning etc. 2 lecture hours and 1 three-hour laboratories per week. **Prerequisite: MECT 121.** 

### MECT 276 Architectural Drawing II 3 Credits

Conceptual planning and design of a large-scale architectural project responding to the social and cultural context of the environment. Employing team research and analysis leading to the design and presentation on individual solutions with graphic and three-dimensional techniques. 2 lecture hours and 1 three-hour laboratories per week. **Prerequisite: Senior standing in Technology or Departmental Approval.** 

#### **METALS TECHNOLOGY**

#### MTLS 122 Welding Technology 2 Credits

A study designed to introduce the student to various welding processes. The student will learn about metals and metal preparation and development skills to weld various joints in various positions. I lecture hour and I three-hour laboratory per week. **Prerequisite: TCED III.** 

#### MTLS 332 Workshop Practice 2 Credits

A study of metal products fabrication which includes welding, bending, shaping and milling, or forging. I lecture hour and I three-hour laboratory per week. **Prerequisite: MTLS 122.** 

#### **GENERAL TECHNOLOGY COURSES**

#### TCED III 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. I lecture hour and I three-hour laboratory per week.

### TCED 210 Machine and Tool Maintenance 3 Credits

A study and practical application of the principles and procedures followed in routine maintenance and repair of tools and equipment used in Technology. 2 lecture hours and I three-hour laboratory per week.

# TCED 211A Practicum in Technology (Automotive)

Laboratory work experience or laboratory supervised experience in an assigned area of concentration in Automotive Technology. (220 hours of work experience in Auto-body Repair shop for 1 credit registered). **Prerequisite: AUTO 211.** 

# TCED 211E Practicum in Technology (Electronics)

Laboratory work experience or laboratory supervised experience in an assigned area of concentration. (220 hours of work experience in Electronics Repair shop for I credit registered). **Prerequisite: ELCT 211.** 

### TCED 220 Philosophy of Technical Education 2 Credits

A study of philosophy of general education, technical education, and Adventist education system. 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 221 Associate Project I | I Credit

A project made representing his/her major area of interest and ability. The course involves title defence and project proposal defence. 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 skills and originality. Prerequisite: Must have 20 credits in major area.

#### TCED 222 Associate Project II | | Credit

Implementation of the approved proposed project in TCED 221. A final defence of the implemented project is required. **Prerequisite: TCED 221.** 

#### 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 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. With emphasis on quantitative analysis of velocities, pipe flow and overflow and viscous fluid flow. 2 lecture hours per week. **Prerequisite: TCEM 122.** 

# TCED 321 A Advanced Practicum in Technology (Automotive)

Individualized laboratory work experience or individualized laboratory supervised experience in an assigned area of concentration in Automotive Technology (220 hours of work experience Automotive Workshop for I credit registered).

I Credit

I Credit

Prerequisite: TCED 211 A.

# TCED 321 E Advanced Practicum in Technology (Electronics)

220 hours of laboratory work experience in advanced repairing, maintenance, sound system operation and managing and programming of radio station, or individualized laboratory supervised experience in an assigned area of concentration in Electronics (220 hours of work experience Public Address system operation and Radio Station for I credit registered). **Prerequisite: TCED 211E.** 

### TCED 325 Technology

#### **Entrepreneurship** 2 Credits

A study of the theory and practice of the technological work environment. Emphasis is placed on aspects of its operation, management, marketing and ownership. It also incorporates matters of finances, equipment and facilities, record keeping, government policies and requirements, and intellectual property rights. 2 lecture hours per week.

#### TCED 330 Industrial Economy 3 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. 3 lecture hours per week. **Prerequisite: TCEM 111.** 

#### TCED 400 Independent study I Credit

Individual study, research, or project in some field of technology that is not covered in any course taken under the direction of a member of the departmental faculty. Prerequisite: 15 credits in technology and the instructor's permission. Can be repeated up to 6 credits.

### TCED 401 Topics in Technology (A,B,C) 1, 2, 3 Credits

Topics of current or special interest to faculty and students that are not covered adequately by regular courses are under this title. This course may be repeated for different topics. Prerequisite: Consent of the Department.

#### 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 I three-hour laboratory per week.

#### TCED 411 Senior Project I 2 Credits

A project made during the student's senior year representing his/her major area of interest and ability. The course involves title and project proposal defence. 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: Must have 50 credits in major area.** 

#### TCED 422 Senior Project II 2 Credits

Implementation of the approved proposed project in TCED 411. A final defence of the implemented project is required. **Prerequisite: TCED 411.** 

### TCED 424 Shop Planning and Organization 2 Credits

A study of floor-planning and general design of a workshop. Emphasis will be on efficient use of equipment, space, and human resources. Special consideration will be given to safety and government regulations related to shop practices. I lecture hour and I three-hour laboratory per week.

#### 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 Industrial Attachment 4 Credits

This course provides the bridge between the theoretical knowledge gained from learning in the classroom setting and the practical skills required by business organizations and industries beyond those acquired in their usual learning environment. A minimum of twelve weeks of attachment is required.

Prerequisites: TCED 321A, TCED 321E. and approval of the department chairman is considered.

### TCEM III 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. 3 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. 3 lecture hours per week. **Prerequisite: TCEM 111.** 

### TCEM 221 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. 3 lecture hours per week. **Prerequisite: TCEM 122.** 

### TCEM 222 Engineering Mathematics IV

An introduction to Laplace transforms, Fourier series and Z transforms, data handling and elements of probability theory. 3

3 Credits

lecture hours per week. **Prerequisite: TCEM 221.** 

#### **WOOD TECHNOLOGY**

#### WOOD 100 Wood Work I 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. I lecture and I three-hour laboratory alternately.

#### 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. I lecture hour and I three-hour laboratory per week. **Prerequisite MECT 121.** 

### WOOD 182 Machine

Woodworking 3 Credits

Introduction to design and wood identification, and the construction of appropriate projects from working drawings with emphasis on safe and proper use of woodworking machines. I lecture hour and 2 three-hour laboratories per week. **Prerequisite: WOOD 181.** 

### 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 I three-hour laboratories per week. **Prerequisite: WOOD 182.** 

#### 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.

#### **Food Service**

Resident students are expected to eat their meals in the University cafeteria. No provision is made for food preparation in the rooms. A vegetarian diet is provided in the boarding plan which allows for the normal three meals per day while the trimester 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 financial arrangements with the Students Finance Office.

#### **Health Service**

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 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 Programme**

The University operates a number of auxillary and vocational services where students may work part time to earn a portion of their school expenses. These opportunities to engage in productive and useful labour help to develop character traits of industry, dependability and intiative. 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 programmes 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, kick ball, softball, 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 programme 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 vigour, 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 behaviour such as: 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 behaviour 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.

## **Official University Appointments**

- 1. Daily evening worships (Sunday, Monday, Tuesday, Thursday)
- 2. General Assembly (Tuesday)
- 3. Power Hour (Wednesday)
- 4. Friday vespers
- 5. Sabbath (Sabbath School, Lesson discussion class, Divine Service and Sun Down worship)
- 6. Week of Spiritual Emphasis
- 7. Spiritual weekend challenge
- 8. All class related meetings
- 9. Any other meeting convened by the University Authorities.

## **Handling of Absences in University Appointments**

- Appointments shall be recorded from the official first –day of class.
- The allowable absences shall not exceed 10% of the total trimester appointments.
- All excusable absences shall be cleared at the appointments office.
- 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 Dean of Students. Forms to be used are available at the residence halls. For detailed information about leave of absence consult the Student Handbook.

## Bookstore, The University

Textbooks and wide range of stationery are available at the University bookstore. Students can buy books against their book deposits. Any purchases from the bookstore in excess of the book deposit will be authorized by the Students' Finance Manager and the student is expected to pay for the excess during the trimester.

## **Marriages**

As a general rule, marriages are not encouraged during the academic year. However, exceptions may be granted at special request.

#### Residence Halls

All residence hall students are charged a boarding fee for the cost of room and meals as per the Fee Schedule. Beds, closet and study space are provided in each room. Mattresses (can be purchased by students on campus) and beddings are to be provided by the student.

Each student is issued with a key to the room at the time of admission and is to return the key when moving out. The charge for a lost key is KShs. 100.

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.

## **Vacation Period Charge**

Room charge of Kshs. 120 per night and meal charge of Kshs. 150 per meal will be made to students remaining on campus during vacation periods.

A non-registered student will be charged Kshs. I 50 per meal.

## FINANCIAL INFORMATION

## **GENERAL FINANCIAL INFORMATION**

#### A. REFUNDS

Students who withdraw from any or all classes and from the Boarding Section during the trimester will receive the following refunds on the charges of tuition, room and meals: 85% refund during the first and second weeks of the trimester, 75% refund during the third week of the trimester, 65% refund during the fourth week of the trimester, 55% refund during the sixth week of the trimester, 35% refund during the seventh week of the trimester, 25% refund during the eighth week of the trimester.

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.

#### B. CASH WITHDRAWAL

Fees once paid will not be withdrawn for personal use.

## C. 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.

#### D. STUDENT FINANCIAL AID

The student financial aid programme at the University of Eastern Africa, Baraton has been developed to help needy and worthy students registered at the University.

## I. Worthy and Needy Student Endowment Fund

This fund was established by the University to benefit worthy and needy students already registered at the University. Individuals interested in this financial aid must meet the following criteria:

- Must have registered with the University for at least three trimesters.
- Should have a minimum accumulated GPA of 2.50 and should not be on citizenship probation.
- Should have worked for 600 hours, or an average of 20 hours for 10 weeks in each of those three trimesters.
- Application must be submitted a month before the trimester for which assistance is sought.

The aid will be granted once a year during the second trimester. If you meet the above criteria, you can obtain application forms from the office of the Dean of Students.

#### 2. Virchel and Esther Wood Loan Fund

This fund is specifically for Biology students. More details can be found in the same department.

### 3. Siphiwe E. Muze Memorial Endowment Fund

This scholarship was established to benefit students pursuing studies in Biological Sciences. 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. To be considered, one should have been at the University for at least three trimesters and have an overall GPA of not less than 3.0 in the Biological Science Major. This scholarship was established in memory of Mrs. Siphiwe E. Muze, former lecturer in the Department of Biological Sciences. Its availability is contingent upon donations from well wishers.

## 4. Work Programme

The University provides assistance to a limited number of students through the work programme. However, it should be noted that it is not possible for students to wholly rely on the work programme to meet all their financial obligations to the University. Application for the work programme should be made through the Student Labour Office.

## 5. Literature Evangelist Ministry

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.

## 6. Bonus Programme

The Bonus Programme has been established by the University to assist students who are members of the Seventh-day-Adventist Church. Only those who meet the requirements will work. The amount they earn from work will be supplemented by a bonus which will enable the student to meet their tuition fees for the next trimester. Students who are interested should see the Dean of Students for further information.

#### E. FEES PAYMENT DETAILS

Fees payment should be made by CASH deposit into the following University's Bank accounts at Standard Chartered Bank or Kenya Commercial Bank. (Deposit can be made in any branch in Kenya)

I) Bank Name Standard Chartered Bank Bank Branch Eldoret Account Number 01020 - 17946900

2) Bank Name Kenya Commercial Bank Bank Branch Kapsabet Account Number 110 - 2037710

3) Bank Name Equity Bank
Bank Branch Kapsabet
Account Number 0490297227588

The original copy of the bank deposit slip is kept by the student for personal reference.

The following information must be provided to the Bank on deposit:

- The Student's full name
- The Student's University Identity Number (New students should enter NEW in place of ID)

**NB:** Do not deposit Cheques and Money Orders in these accounts.

Fees payment can also be made to the University's Cashier by banker's cheque or money orders payable to the University of Eastern Africa, Baraton.

**Foreign Students and Sponsors** wishing to transfer fees from outside Kenya to the University's account should make the Payment in the University's US Dollar (\$) account at Kenya Commercial Bank.

The transfer information is as shown below:

Bank Name

Bank Branch

Account Number

Swift Code (Routing Number)

Kenya Commercial Bank

Kapsabet

110 - 210 - 0692

KCBLKENX

The Student's full name will be required as well as the Student's University Identity number

New Students Should write NEW in the place of the number.

#### NOTE:

For more information about the 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.

#### ADMINISTRATION OF THE UNIVERSITY

- I. The Vice-Chancellor
- 2. The Deputy Vice-Chancellor, Academics
- 3. The Deputy Vice-Chancellor, Finance and Administration
- 4. The Deputy Vice-Chancellor, Student Affairs and Services
- 5. The Registrar
- 6. The Chaplain

## MEMBERSHIP AND GOVERNANCE OF THE UNIVERSITY

#### **MEMBERSHIP**

The Members of the University shall be;

- The Chancellor,
- The Vice-Chancellor,
- The Deputy Vice-Chancellor (DVC)-Academics
- The Deputy Vice-Chancellor (DVC)-Finance and Admin.
- The Deputy Vice-Chancellor (DVC)-Student Affairs and Services
- The Registrar of Admissions and Records,
- The Chaplain
- The Principal of each Affiliated College,
- The Members of the University Council,
- The Professors and Lecturers of the University,
- The Librarian.
- The Students.
- 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 Chancellor,
- 2. The Constituency,
- 3. The University Council,
- 4. The Administrative Board,

- 5. The University Senate, and
- 6. Faculty and Staff Committees

#### I. The Chancellor

- The President of the East-Central Africa Division (ECD) of the Seventh- day Adventist Church shall be the Chancellor
- The Chancellor shall award certificates, diplomas and degrees. 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.

## 2. The Constituency

The Constituency of the University shall have and exercise the following functions:

- a) To appoint quinquennially the non-ex-officio members of the University Council;
- b) 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;
- c) 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.
- d) To carry out any other business that shall be deemed necessary for the successful running of the University.

## 3. The University Council

- 1. The University Council shall consist of not more than 17 members as follows:
  - a. The ECD Field Secretary,
  - b. The Vice-Chancellor of the University as Secretary,
  - c. The East African Union (EAU) Executive Director as Vice-Chairperson,
  - d. ECD President,
  - e. ECD Executive Secretary,
  - f. ECD Treasurer,
  - g. The Director of Education of the East-Central Africa Division,
  - h. ECD Health Ministries Director.

- i. The Director of Education of the East African Union,
- j. Alumni National Chairperson
- k. Faculty Representative recommended by the University Senate.
- I. Western Kenya Conference Executive Director,
- m. Two professionals from Kenya recommended by East African Union,
- n. A professional from Uganda recommended by Uganda Union.
- A professional from Tanzania recommended by Tanzania Union.
- p. One Union President in addition to EAU President on two year rotation.
- 2. The Council of the University shall have and exercise the following functions:
  - To appoint the Vice-Chancellor as and when a vacancy arises:
  - To ensure the operation of the University as a whole and all its departments severally and in harmony with the general policies outlined by the Constituency,
  - c. To establish operational policies which will ensure that the purposes of the University are being realized.
  - d. To provide facilities and to maintain a physical entity adequate to meet the needs of the planned enrollment in the various academic and vocational programmes which shall be adopted;
  - e. To appoint, transfer, or dismiss administrative officers, faculty and staff members of the University and to prescribe the duties, terms and conditions that shall apply to these appointments.
  - f. To make such other appointments, paid or honorary, as may be necessary for the operation of the University;
  - g. To determine the various faculty ranks and staff positions which shall apply in the University and to adopt the conditions of promotion within the ranks and positions;

- h. To set the salary and wage rates for administrative, faculty, staff and support personnel;
- i. To set the rates for tuition, board, room, fees and the policies governing financial and scholarship relationships of the students to the University.
- j. To require and adopt an annual operating budget for the University, which shall govern the financial activities and decisions in the operation of the University;
- k. To approve the financial record system of the University and to require an audit of these accounts annually by independent auditors;
- I. To receive, review and approve periodical financial statements of the University's operation;
- 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;
- n. To receive on behalf of the University donations, endowments and grants;
- To signify the acts of the University by use of a Common Seal:
- p. To approve the composition of the major staff committees of the University;
- q. To give a report to the Executive Committee of the East-Central Africa Division of the General Conference of Seventh-day Adventists at least once a year;
- r. To perform such other functions as may be conferred upon it by this Charter and the statutes.

#### 4. The Administrative Board

- . The Administrative Board shall consist of twelve members as follows:
  - a. Vice-Chancellor, Chairperson
  - b. The Deputy Vice-Chancellor (DVC)-Academics, Vice-Chairperson
  - c. The Deputy Vice-Chancellor (DVC)- Finance and Administration
  - d. The Deputy Vice-Chancellor (DVC)- Student Affairs and Services
  - e. The Registrar, Secretary
  - f. Senior Pastor of the University Church
  - g. Director of Development, Public Relations and Alumni Affairs
  - h. Human Resource Manager
  - i. Auxiliary Enterprises General Manager
  - j. Librarian
  - k. One Dean of School on six-month rotation
  - l. Director of Quality Assurance
- 2. The function of the Administrative Board shall be;
  - a. To make decisions regarding the day-to-day operations of the University.
  - To make recommendations to the University Council.
  - c. To implement Council decisions.
  - d. To handle any other matter that relates to the running of the University.

## 5. The General Faculty Assembly

- I. The General Faculty Assembly of the University shall consist of:
  - a. Vice-Chancellor Chairperson.
  - b. The Deputy Vice-Chancellor, Academics; Vice-Chairperson.
  - c. Registrar-Secretary.
  - d. The Deputy Vice-Chancellor, Finance and Administration.
  - e. The Deputy Vice-Chancellor, Student Affairs and Services.
  - f. Director of Development, Public Relations and

- Alumni Affairs.
- g. Senior Pastor of the University.
- h. Librarian.
- i. Deans of Schools.
- j. Chairpersons of academic departments.
- k. A representative from each school elected by the faculty of the school.
- I. Human Resource Manager.
- m. Director of Affiliations, Linkages and Extension Programmes.
- n. Director of Graduate Studies and Research.
- o. Chief Accountant.
- p. Auxiliary Enterprises General Manager.
- g. President, Student Association.
- r. Secretary General, Student Association.
- s. Director, Quality Assurance.
- 2. The Senate shall have and exercise the following functions:
  - a. To consider and set policies on broad University issues:
  - b. To recommend annual budget to the University Council;
  - c. To propose statutes on social, spiritual, and academic policies;
  - d. To receive reports on the operation of any aspect of the University;
  - e. To receive reports from faculty members who are engaged in research projects;
  - f. To approve such candidates for degrees, diplomas etc. as may be recommended by the schools;
  - g. To consider such other matters as may be delegated to it by the University Administration.

#### 6. 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 is the President of the East-Central Africa Division and shall hold office concurrently with and throughout the duration of his appointment as President of ECD of Seventh-day Adventists.

#### **STATUTE III**

#### The Vice-Chancellor

- I. The Vice-Chancellor shall be appointed quinquinially by the University Council on such terms and conditions of service as the Council may prescribe.
- 2. The Vice-Chancellor shall be the Chief 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.
- 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 shall by virtue of his office, be a member of every committee functioning in the University.

#### **STATUTE IV**

## The Deputy Vice-Chancellor, Academics

- I. The Deputy Vice-Chancellor-Academics, shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe.
- 2. The Deputy Vice-Chancellor, Academics' primary function shall be in the area of academic administration.
- 3. The Deputy Vice-Chancellor-Academics shall be an exofficio member of every committee of the University that deals with academic related issues.
- 4. The Deputy Vice-Chancellor-Academics reports to the Vice-Chancellor.
- 5. The term for Deputy Vice-Chancellor, is 4 years.

#### **STATUTE V**

## The Deputy Vice-Chancellor, Finance and Administration

- I. The Deputy Vice-Chancellor, Finance and Administration shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe.
- 2. The Deputy Vice-Chancellor, Finance and Administration's primary function shall be in the area of finance and administration.
- 3. The Deputy Vice-Chancellor, Finance and Administration reports to the Vice-Chancellor.
- 4. The term of Deputy Vice-Chancellor, Finance and Administration is 4 years.

#### **STATUTE VI**

## The Deputy Vice-Chancellor, Student Services

- 1. The Deputy Vice-Chancellor, Student Affairs and Services shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe.
- 2. The Deputy Vice-Chancellor, Student Affairs and Services' primary function shall be in the area of student social services, accommodation, and deportment.
- 3. The Deputy Vice-Chancellor, Student Affairs and Services reports to the Vice-Chancellor.
- 4. The term for Deputy Vice-Chancellor, Student Affairs and Services is 4 years.

#### **STATUTE VII**

## **The Senior University Pastor**

- 1. The Senior University Pastor shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe.
- 2. The Senior University Pastor's primary function is to provide spiritual leadership and to coordinate all religious activities of the University.
- 3. The Senior University Pastor shall be an ordained minister of the Seventh-day Adventist Church,
- 4. The Senior University Pastor is responsible to the Vice-Chancellor for the following functions:
  - Serves as the senior pastor of the University Church in accordance with the Church Manual and the policies of the Seventh-day Adventist Church and Western Kenya Conference of Seventh-day Adventists.
    - a. Works with the elected leaders of the Church in planning and implementation of all the services of the Church.
    - In consultation with the Vice-Chancellor, prepares a sermonic year for the Church and models for the students a well ordered pulpit and Church program.
    - c. Serves as a liaison between the University Church and the Western Kenya Conference of Seventh-day Adventists.
  - II. Provides specialized services to the University faculty/ staff and students:
    - a. Teaches up to four credit hours per trimester as may be requested by the University administration.
    - b. Leads out in visitation, weddings, funerals, baptisms, counseling (pre-marital, marital, career, spiritual, psychological) etc.
    - c. Provides periodic written Reports to the University administration.
    - d. Serves as a member of the following committees: Religious Activities (Chairperson)
      - Administrative Board
      - Academic and Senior Staff Appointments
  - III. Carries out any other duties as may be specified by the Administrative Board.
- 5. The term for Senior University Pastor is 4 years.

#### **STATUTE VIII**

## The Chaplain

- 1. The Chaplain shall be appointed by the University Council.
- The Chaplain is responsible to the Senior University Pastor for the ministry to the students.
- 3. The Chaplain has the following major duties;
  - a. Teaches at least 4 credit hours as may be requested by administration.
  - b. Leads out in student visitation, counseling (premarital, marital, career, spiritual, psychological) etc.
  - c. In consultation with the Senior University Pastor, prepares a sermonic year for the daily worship save mid-week worship, Friday and Sabbath programmes.
  - d. Provides specialized ministerial services to the students.
  - e. Provides written reports to the University Administration.
- The Chaplain shall serve as a member of the following Committees:
  - a. Student Aid
  - b. Student Disciplinary
  - c. Admissions
  - d. Graduation
  - e. Student Affairs

#### **STATUTE IX**

## The Registrar

- 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 authenticates students' satisfactory fulfillment of graduation requirements.
- 4. The Registrar reports to the Deputy Vice-Chancellor, Academics.
- The Registrar shall be the Secretary to the Administrative Board.
- 6. The term for the Registrar is 4 years.

#### **STATUTE X**

## Principal of an Affiliated College

The Principal of an affiliated college or his/her appointee is the liaison officer between the University and the affiliated college.

#### **STATUTE XI**

#### **Academic Dean**

The Dean shall be appointed by the University Council 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, Academics. The term for the Academic Dean is 3 years.

#### **STATUTE XII**

## **Chairperson of a Department**

The Chairperson of a department shall be appointed by the University Council on such terms and conditions of service as the Council may prescribe. He is the chief academic officer of the Department and reports to the Academic Dean. The term for the Chairperson is 2 years.

#### **STATUTE XIII**

#### The Librarian

The Librarian shall be appointed by the University Council 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, Academics.

#### **STATUTE XIV**

### **Terms and Conditions of Service of Staff**

The University Council shall appoint and 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 membership, powers, and functions of the University Council shall be as prescribed in the University of Eastern Africa, Baraton Charter, 1991.
- 2. 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 a simple majority of the total membership.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. The Chairman, or in his absence, a Vice-Chairman, shall preside at all meetings of the Council.
- 7. 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.
- 8. The Secretary of the Council shall keep the minutes of the Council's deliberations, which must be ratified at a subsequent meeting.

#### **STATUTE XVI**

#### The Subcommittees of the Council

The Council shall have the right to create subcommittees which shall include but not limited to the following: Academic, Finance and Development, Student Affairs and 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 a simple majority 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.
- 2. The Senate shall meet at least once a trimester.

#### **STATUTE XIX**

## **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:

## I. Applied Sciences and Technology

- a. Agriculture
- b. Industrial Technology
- c. Family and Consumer Science
- d. Computer Science

#### 2. Business

- a. Accounting
- b. Economics
- c. Finance
- d. Management
- e. Marketing
- f. Secretarial Studies

#### 3. Education

- a. Adult
- b. Elementary
- c. Guidance & Counseling
- d. Secondary

#### 4. Graduate Studies

#### 5. Health Sciences

- a. Biomedicine
- b. Medical Laboratory Science
- c. Medical Technology
- d. Medicine
- e. Nursing
- f. Public Health

#### 6. Natural Sciences

- a. Biology
- b. Mathematics
- c. Chemistry
- d. Physics

#### 7. Humanities and Social Sciences

- a. English
- b. Development Studies
- c. French
- d. Geography
- e. History
- f. Kiswahili
- g. Music
- h. Religion
- i. Theology

#### 8. Medicine

- 9. Dentistry
- 10. Computing and Information Technology
- 11. Theology and Religious Studies

#### **STATUTE XX**

#### The Student Association

- 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 Seventhday Adventist Church.

- 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 enrolment.
- 2. The purpose of the Student Association shall be to provide students 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.
- 4. The Student Association shall function under the jurisdiction of the DVC Student Affairs and Services.

#### STATUTE XXI

#### Committees

- 1. The Council shall create or dissolve committees as the need may arise.
- 2. The following committees and any other that the Council may deem necessary shall function regularly in the implementation of the educational objectives of the University:
  - i. Academic Standards Committee: sets and monitors the standards for curricular and academic matters.
  - ii. Admissions Committee: Implements the admission process.
  - iii. Affiliations: handles all affiliation matters.
  - iv. Appointments and Promotions Committee: carries out the faculty and staff recruitment process and make recommendations to administration; deals with academic ranking and promotion and makes recommendations to the Administrative Board.
  - v. Audit Review Committee: Reviews financial audit reports and reports findings to the Council.
  - vi. Auxiliary Enterprises Board: Monitors the performance of auxiliary enterprises and makes recommendations to the Administrative Board.
  - vii. Building and Development: Advises the administration on the construction of physical structures.
  - viii.Land Improvement and Campus Beautification

- ix. Campus Security Committee: Monitors and advises the administration on the security situation on campus.
- x. Development and Public Relations Committee
- xi. Faculty and Staff Grievance Committee
- xii. Faculty & Staff Social Committee
- xiii. Graduate Studies Committee: Coordinates all graduate studies activities
- xiv. Graduation Committee: Plans and coordinates all graduation activities
- xv. HIV/AIDS Committee: Creates HIV/AIDS awareness, offers counseling and support and creates channels of referral for the infected and affected members of the University Community and its environs.
- xvi. Library Committee: advises the Librarian on matters pertaining to the efficient operation of the Library.
- xvii. Non-Academic Appointments and Promotions Committee.
- xviii. Planning and Budget Committee: Carries out budgeting and financial planning and make recommendations to Council through the Administrative Board.
- xix. Peer Counseling Advisory Committee
- xx. Publications Board
- xxi. Religious Activities Committee: Coordinates the religious activities of the University within the framework of the tenets of the Seventh-day Adventist Church.
- xxii. Research Ethics Committee
- xxiii. Research and Professional Growth Committee: coordinates and facilitates research and professional growth activities for faculty and staff.
- xxiv. Senate
- xxv. Student Affairs and Services Committee: advises the Administration on the non-academic aspects of student life, e.g. accommodation, deportment, recreation, etc.
- xxvi. Students Aid Committee: handles aid to worthy and needy students.
- xxvii. Student Disciplinary Committee: handles student disciplinary cases and advises the administration accordingly.

- xxviii. Student Work Programme Committee: Coordinates student work programme activities
- 3. The University Council may, from time to time, approve or discontinue other committees as it sees fit.

#### **STATUTE XXII**

#### **Admission Criteria**

- The admission criteria shall be determined from time to time in line with government regulations, by the University Council upon recommendation by the University administration.
- 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 character recommendations and the availability of classroom and residence accommodations.
- 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 XXIII

## **Graduate Programs**

- I. 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.
- 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 XXIV

## **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	PhD
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

Dipiorna in Education	
Post-Graduate Diploma in Education	
Bachelor of Arts	ВА
Master of Arts	MA
Doctor of Education	EdD
Doctor of Philosophy	PhD

#### School of Health Sciences

Bachelor of Science	BSc
Bachelor of Public Health	BPH
Master of Science	M.Sc
Master of Public Health	MPH

#### School of Humanities and Social Sciences

Bachelor of Arts	BA
Bachelor of Law	LLB
Master of Arts	MA
Doctor of Philosophy	PhD

#### **School of Medicine**

Bachelor of Medicine and

Bachelor of Surgery MBChB

Pharmacy

Master of Medicine

#### **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	MDiv
Master of Pastoral Studies	MPS
Doctor of Ministry	DMin
Doctor of Philosophy	PhD

2. Every degree certificate shall incorporate a brief description of the course or subject of specialization.

## **STATUTE XXV**

## **Awarding Degrees, Diplomas, Certificates**

- 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 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 XXVI**

## **Conferring Degrees**

- 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. Degrees shall be conferred by the Chancellor at the Graduation Exercise.
- 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 unless the Registrar has authenticated 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 XXVII

## **Revocation of Degrees**

The University reserves the right to revoke any degree, diploma or certificate upon evidence to warrant the cancellation.

#### STATUTE XXVIII

## **University Examinations**

- 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 XXIX

## **Financial Regulations**

- 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, through the office of the Deputy Vice-Chancellor, Finance and Administration.
- 2. Sources of funds shall be:
  - a. Annual grants and appropriations from the East-Central Africa Division of the General Conference of Seventh-day Adventists.
  - b. Endowment, gifts and trust funds.
  - c. Tuition and fees.
  - d. Income from University auxiliary enterprises and investments.
- 3. The financial year of the University shall be the period of twelve (12) months commencing July 1 of a given year and ending June 30 of the following year.
- 4. Before the commencement of a financial year, the Vice-Chancellor shall through the office of Deputy Vice-Chancellor, Finance and in consultation with the Deputy Vice-Chancellor, Academics 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, Finance 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.
- 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 XXX

#### **Gender Equity**

Gender equity shall be maintained at all levels of administration and governance.

#### STATUTE XXXI

#### **Miscellaneous**

- 1. These statutes shall go into effect on the day after the day the University of Eastern Africa, Baraton Charter has been awarded.
- 2. The University Council may amend, nullify or add any Statute as and when it deems fit/necessary.
- 3. The University Council reserves the right to create any office that it shall deem necessary for the proper functioning of the University.

## **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**

Miriam Mwita Vice-Chancellor, VC Gude Korso Butucha DVC, Academics

Dani Harelimana DVC, Finance and Administration Paul Wahonya DVC, Student Affairs and Services

Noah Angwenyi Registrar

## Associate Administrators

Edward Damulira Director of Development and

Alumni Affairs

Alfeo Ateka Chief Accountant James Ouma Senior Pastor

Peter Bwana Human Resourse Manager
- General Manager, Auxiliary

Enterprises

Yona Balyage Director of Quality Assurance

Margaret Adeogun Chief Librarian

## Assistants in Administration

Amon Chepkwony Corporate Affairs Officer

Erastus Odira Medical Director Rei Kesis Dean of Men

Paul Mulinge Food Service Manager

Pauline Njine Dean of Women
Donnah Okumu Ndiege Development Officer

#### **Administration Assistants**

James Theuri Physical Plant Manager Margaret Oirere Supervisor, Booksrote &

Supermarket

Samson Ooko Assistant Registrar, Registration

and Examination

Alice Ouma Assistant Registrar, Admissions

Paul Kirwa Senior Accountant

John Chacha Assistant Registrar, Records

Ruth Wamalika Assistant Librarian

#### **Deans of Schools**

Abraham Idowu School of Business
Lazarus Ndiku School of Education
Elijah Nyangena School of Health Sciences

Lamech Miyayo School of Humanities and Social

Sciences

Zacharia O. A. Ngalo School of Sciences and

Technology

## **Directors of Other Academic Services**

Beatrice Idowu Director, Ellen G. White and

Adventist Heritage Research

Center

Elizabeth Role Director of Research and

Graduate Studies

Tumaini Lisso Quality Assurance Officer

Director of Affiliations, Linkages and Extension Programmes

## Vice-Chancellors who have served the University

1980-1982 Dr. Percy Paul 1983-1988 Dr. Svein Mykelbust Dr. Roland McKenzie 1989-1992 1993-1995 Dr. Mishael Muze 1996-2003 Prof. J. K. Mutinga 2004-2006 Prof. T. McDonald Dr. Nathaniel Walemba 2007-2010 Prof. Miriam Mwita 2011-

# FACULTY LISTING 2008 Angwenvi, N

Lecturer in Mathematics

Abuga, Jade

BSC., University of Eastern Africa, Baraton

MSC., Jomo Kenyatta University of Agriculture and Technology

PhD. in progress, Ilmenau University, Germany

Abuto, Edgar 2011

Assistant Lecturer in Chemistry

BSC., Jomo Kenyatta University of Agriculture and Technology

MPhil., Moi University

Adeogun, Joshua 1990

Senior Lecturer in Technology BSc., Andrews University MAT., Andrews University

Akumu, Edwin 2010

Assistant Lecturer in Chemistry

BSc., Moi University MPhil., Moi University

PhD. in progress, University of Eldoret

Akuno, Peter Midigo 2007

Lecturer in Accounting

BCom., University of Delhi, India

MSoc., SC., University of Birmingham, UK

CPA (K), AMKIM.

PhD. in progress, University of Nairobi

Amenya, Hulda 2001

Lecturer in English

BA., Andrews University USA, UEAB Campus

MA., Andrews University PhD., Purdue University

Angwenyi Esther 2012

Assistant Lecturer in Development Studies BA., University of Eastern Africa, Baraton

MSc., Andrews University

Angwenyi, Noah

Lecturer in Agriculture BSc., University of Nairobi MS., Texas A & M University

Anjejo, Dixon 1992

Senior Lecturer in Public Health

Dip., Egerton University

B.Sc., University of Eastern Africa, Baraton

M.Sc., Moi University

DrPH., Loma Linda University, USA

Asa, Christinal 2012

Clinical Instructor in Nursing Department.

BScN., Manipal Academy of Higher Education, Manipal.

Ayiemba, James 2002

Lecturer in Electronics

BST., University of Eastern Africa, Baraton MSc., University of Applied Sciences, Westfalia

Ayiemba, Jane 2007

Assistant Lecturer in Education BEd., Bugema University

MEd., University of Eastern Africa, Baraton

PhD. in progress, University of Eastern Africa, Baraton

Balyage, Yona 2003

Associate Professor in Education BLA., Spicer Memorial College, India MA., Philippine Union College, Philippines

PhD., Central Luzon State University, Philippines

Banaga, Corazon 2004

Associate Professor in Management BSc., Philippine Union College, Philippines MBA., Philippine Christian University, Philippines PhD., University of Santo Thomas, Philippines

Baongoli, Mungengo 2004

Lecturer in English

BA., University of Eastern Africa, Baraton

MA., University of Nairobi

PhD. in progress, University of Nairobi

Barno, Hellen Assistant Lecturer in Kiswahili BA., University of Eastern Africa, Barato	2012 n	Chepkwony, Clara Teaching Assistant in Counseling Psycholo BA., University of Eastern Africa, Baraton	2012 gy
MPhil., Moi University  Barongo, Asenath Lecturer in Public Health B.Sc., Moi University MPH., Moi University PhD., in Progress, Kuopio University, Fir	2006 nland	Choge, Joseph Lecturer in Medical Laboratory Sciences Dip., Kenya Medical Training College BSc., Moi University MPhil., Moi University PhD. in progress, Moi University	2012
Bartai, Erick Soi Lecturer in Technology BSc., University of Eastern Africa, Barato MSc., Jomo Kenyatta University of Agric		Darla, Lee Lecturer in Nursing BSN., Wala Wala, USA MSN., Saginaw Valley State University,	2002
Bett, Nelson Teaching Assistant in Technology BSc., University of Eastern Africa, Barato MSc., in progress, Jomo Kenyatta Unive Science & Technology		MPH., Loma Linda University, USA  Deya, David  Assistant lecturer in Nursing Department.  BScN., University of Eastern Africa, Bara'  MScN., University of Eastern Africa, Bara'	ton.
Bor, Thomas Clinical Instructor in Nursing BSN., Nursing, University of Eastern Afr	2008 rica, Baraton	Fanta, Aster Assistant Lecturer in Biology BSSA., Adventist University of Philippines	
Bwana, Deborah Assistant Lecturer in Counseling Psychol BA., University of Eastern Africa, Barato MA., Kenyatta University		MA., International Institute of Health, (Ad of Philippines), Philippines Fanta, Hotamo Lecturer in Educational Administration	2005
Bwana, Peter Assistant Lecturer in Education Dip., Kenyatta University	2006	BSE Philippine Union College MA Philippine Union College PHD Central State University	
MA., Philippine Union College, Philippir  Bwonda, Daniel  Lecturer in Finance  BSc., Jersey City State College, USA  MBA., Johns University, NY, USA  PhD in Progress, University of Nairobi	es 2005	Francis, Paul Samuel Senior Lecturer in Mathematics BSc., Bharathiar University, India MSc., Bharathiar University, India MPhil., Bharathiar University, India PhD., Bharathiar University, India	2012
Chepkwony, Amon Lecturer in Education	1996		

BEd., University of Nairobi MA., Bristol University, UK.

Francis, Ramesh Senior Lecturer in Biology BSc., Bharathiar University, India MSc., Bharathiar University, India MPhil., Bharathiar University, India PhD., Bharathiar University, India	2010	Kesis, Rei Assistant Lecturer in Theology BA., University of Eastern Africa, Baraton MA., Adventist University of Africa PhD., in progress, Kenyatta University	2006
Gichatha, Anthony Teaching Assistant in Networks and Co BSc., University of Eastern Africa, Barat MSc., in progress, Moi University		Kinuthia, Benson Lecturer in Education BST., University of Eastern Africa, Barator M.Ed., University of Eastern Africa, Barato PhD., in progress, University of Eastern A	on
Gracelyn, A. Assistant Lecturer in Biology BSc., University of Madras MSc., University of Madras	2010	Kimeto, Pamela (Study Leave) Assistant Lecturer in Nursing BSc.N., University of Eastern Africa, Bara MSc.N., University of Nairobi	2000 ton
Idowu, Abraham Olugbenga Associate Professor of Information Sys BSc. (Hons), University of Ibadan, Nige MSc., (Numerical Computation), University	eria	Kitur, Evans Assistant Lecturer in Technology BST., University of Eastern Africa, Barator MSc., Moi University	1995
Nigeria MIEEE. <i>Idowu, Beatrice</i> Lecturer in Religion/Education	2003	Kitur, Prudence Teaching Assistant in Family and Consume BSc., University of Eastern Africa, Barator MSc., in progress, Kenyatta University	
BA., Andrews University (ASWA Camp PGDE., University of Eastern Africa, Ba MEd., University of Eastern Africa, Bara PhD., in progress, UEAB	raton	Kwalimwa, John Assistant Lecturer in Nursing Department BScN., University of Eastern Africa, Barat MScN., University of Nairobi.	
Kathare, Alfred Assistant Lecturer in Statistics BSc., University of Nairobi MSc., University of Nairobi	2009	Leleiy, William K.  Teaching Assistant in Technology  BST., University of Eastern Africa, Barator  MSc., in progress, Moi University	2001
Kariuki, Samuel Lecturer in English BEd., University of Nairobi MA., Kenyatta University	2007	Limo, Edward  Clinical instructor in Nursing Department BScN., University of Eastern Africa, Barat MA. in progress, Bugema University	
Kayiita, Zachary Teachng Assistant in Mathematics BSc., University of Eastern Africa, Barat MSc., Masinde Muliro Unversity of Scie Technology		Lisso, Tumaini Lecturer in Mathematics BSc. Ed. MSc., University of Dar-es-Sala DEA., Rene Descartes University (Paris V	

Machogu, Obed O. Lecturer in English BEd., Moi University MA., University of Nairobi	2007	Mayaka, Kevin Assistant Lecturer in Software Engineering BCA., Penyor University, India MSc., Bharathidasan University, India	2009
Maina, Tabbytha Clinical instructor in Nursing Department BScN., University of Eastern Africa, Barat		Miyayo, Lameck M. Senior Lecturer in Theology BA in Theology, Andrews University (UEA	
Mairura, Clive Lecturer in Agri Business BSc., Andrews University, (UEAB Campu MPhil., Moi University	2010 s)	MA., Adventist International Institute of Ad Philippines PhD., Adventist International Institute of A Philippines	
PhD. in progress, Moi University  Malayi, Alex  Lecturer in Counseling Psychology  BA., University of Eastern Africa, Baraton	2012	Miyayo, Yunia Assistant Lecturer in Office Administration BSSA., Philippine Union College, Philippine MEd., University of Eastern Africa, Barator	
MPhil., Moi University MA., Andrews University		Mkandawire, Frackson Senior Lecturer in Agriculture	1988
Mambo, Martha Lecturer in French BA., University of Nairobi MA., Kenyatta University	2002	Dip., Bunda College, University of Malawi BSc, Andrews University (UEAB Campus) MSc., Sokoine University of Agriculture, Ta PhD., in Progress, Egerton University, Ken	anzania
Mambo, Richard Lecturer in Management BBA., University of Eastern Africa, Barato MBA., Aston University, United Kingdom PhD. in progress, University of Nairobi		Mkandawire, Philles Lecturer in Family and Consumer Sciences BSc., University of Eastern Africa, Baraton MSc., Solusi University PGDE., University of Eastern Africa, Baraton	
Mandere, Brian Clinical instructor in Nursing Departmen. BScN., Adventist University of the Philipp		Mooka, Edward Lecturer in English B.Ed., University of Eastern Africa, Barator MA., University of Witwatersrand, Johanna	
Marwa, Francis Sirare Assistant Lecturer in Finance	2012	South Africa PhD., in progress, Moi University	C30C1 <u>6,</u>
BBAM., Egerton University MBA., Catholic University of Eastern Afric		Mcharo, Solomon Clinical Instructor in Nursing	2010
Marwa, Immaculate	2003	BSc.N., University of Eastern Africa, Barato	on
Assistant Lecturer in Nursing B.Sc.N., University of Eastern Africa, Bara MSc.N., University of Eastern Africa Bara		Mooka, Gladys Seroney Assistant Lecturer in Nursing BSc.N., University of Eastern Africa, Barate MSc.N., University of Eastern Africa, Barat	

Mose, Isaiah Assistant Lecturer in Nursing BSc.N., University of Eastern Africa, Bar MSc.N., University of the Western Cap		Mwita, Lina Clinical Instructor in Nursing BScN., University of Nairobi MScN., in progress, University of Nairobi	2008
Muchee, Tabitha Senior Lecturer in Family and Consume BA., University of Eastern Africa, Barato MSc., Central Luzon State University, Pl PhD., University of the Philippines, Phili	n nilippines	Mwita, Miriam Associate Professor of Kiswahili B.A., University of Nairobi PGDE, University of Eastern Africa, Barato M.A., University of Nairobi	1992 on
Mule, Amose Assistant Lecturer in Management BBA., University of Eastern Africa, Barat MBA., Solusi University, Zimbabwe	2012 on	PhD., Moi University  Ndiege, Joshua  Lecturer in Information Systems  BCom., Agra University, India	2004
Munyikombo, William Assistant Lecturer in Biology B.Sc., University of Eastern Africa, Barat	2010 on	ME Com., Agra University, India MComIS., University of Fort Hare, South PhD. in progress, University of Fort Hare,	
MSc., University of Nairobi PhD., in progress, University of Nairob	i	Ndiku, Lazarus Senior Lecturer in Educational Technology	
Musema, Lily Assistant Lecturer in Development Stud BA., University of Eastern Africa, Barato		BA., Andrews University, USA (Solusi Can M.Phil., Moi University D.Phil., Moi University	npus, Zimbabwe)
MA., Bugema University, Uganda  Mutiso, Jackson Assistant Lecturer in Geography BA., University of Eastern Africa, Barato MSc., Jomo Kenyatta University of Agric Technology	ulture and	Ndiku, Mueni Senior Lecturer in Public Health B.A., Andrews University, USA B.B.A., Andrews University, USA M.Sc., Solusi University, Zimbabwe MPH., Loma Linda University (UEAB Can DrPH., Loma Linda University, USA	2000 npus)
Mutunga, Evalyne Teaching Assistant in Development Stud BA., University of Eastern Africa, Barato MA. in progress, Moi University		Ngalo, Susan Assistant Lecturer in Agriculture BSc. Egerton University MBA. Solusi University, Zimbabwe	2009
Mwangi, Petronila  Lecturer in Education  BSc., University of Eastern Africa, Barato PGDE., University of Eastern Africa, Bar		Ngerecia, Joseph Clinical instructor in Nursing Department. BScN., University of Eastern Africa, Barato	2011 on
MEd., University of Eastern Africa, Barat PhD., in progress, University of Eastern	on	Njeru, Mary Lecturer in Nursing BSc.N., University of Southern Africa MCur., University of Southern Africa	2003

Nyaben, Erick Machoka Assistant Lecturer in Music BA., Spicer Memorial College, India MA., Maseno University	2007	Obey, Jackie Lecturer in Medical Laboratory Sciences B.Sc., University of Eastern Africa, Baraton M.Phil. Moi University PhD., in Progress, Moi University	2000
Nyamwamu, Roseline Teaching Assistant in Information Systems BBIT., University of Eastern Africa, Barator MPhil. in progress, Moi University	2006	Ochuodho, Samuel Teaching Assistant in Development Studies BA., University of Eastern Africa, Baraton	2011
Nyamwaya, Onsongo Assistant Lecturer in Networks and Comr BBA., Solusi University, Zimbabwe MIT., Deakin University, Australia	2006 nunications	MA. in progress, University of Nairobi  Odek, Rabach Symon  Lecturer in Theology  BLA., Spicer Memorial College, India	1999
Nyangena, Elijah Senior Lecturer in Nursing BSc.N., University of Eastern Africa, Barat	1991 on	M.A., Andrew's University, USA PhD., Adventist International Institute of A Philippines	dvanced Studies
MSc.N., University of Witwatersrand, Sou PhD., Moi University		Odek, Salome Lecturer in Education	1999
Nyaranga, Caleb Field Instructor in Public Health BSc., University of Eastern Africa, Baraton	2010	BSE., Philippine Union College, Philippines MA., Philippine Union College, Philippines PhD., Adventist International Institute of A Philippines	;
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