

LANG 300	Origins and Development of English	3
LANG 305	English Syntax	3
LANG 315	Second Language Acquisition	3
LANG 400	Principles of Creative Writing	3

Elective English Courses (Student to choose any two courses)

Course Code	Course Title	Credit Hours
LANG 310	Varieties of English	3
LANG 325	Discourse Analysis	3
LANG 320	West African Prode and Drama	3
LANG 330	English Structure and Semantics	3
LANG 410	Sociolinguistics	3
LANG 416	European Literature	3
LANG 425	Literature of African Diaspora	3
<b>TOTAL</b>		<b>36</b>

### 3.5.5 GEOGRAPHY CORE COURSES

Course Code	Course Title	Credit Hours
GEOG 101	Introduction to Geography	3
GEOG 102	Human Geography and Spatial Organizations	3
GEOG 103	Physical Geography I	3
GEOG 201	Regional Geography	3
GEOG 202	Economic and Development Geography	3
GEOG 203	Physical Geography II	3
GEOG 204	Statistics Cartography and Map Analysis	3
GEOG 302	Natural Resource and Environmental Geography	3
GEOG 303	Population Geography	3
GEOG 401	Agricultural Geography	3

Elective Geography Courses (Student to choose any two Courses)

Course Code	Course Title	Credit Hours
GEOG 205	Tourism Geography	3
GEOG 206	Geography of East Africa	3
GEOG 301	Industrial Geography	3
GEOG 304	Political Geography	3

GEOG 403	Introduction to Geography	3
	Information Systems	3
GEOG 404	Geography Research Project	3
<b>TOTAL</b>		<b>36</b>

### BUSINESS CORE COURSES

Course Code	Course Title	Credit Hours
BUSS 111	Microeconomics	3
BUSS 112	Principles of Accounting 1	3
BUSS 115	Macroeconomics	3
BUSS 117	Principles of Accounting II	3
BUSS 200	Office Practice and Management	3
BUSS 201	Commerce	3
BUSS 212	Business Law	3
BUSS 214	Principles of Management	3
BUSS 218	Principles of Marketing	3
BUSS 220	Human Resource Management	3

Elective Business Courses (Student to choose any two courses)

Course Code	Course Title	Credit Hours
BUSS 215	Organizational Behaviour	3
BUSS 219	Managerial Accounting	3
HRMG 332	Manpower Planning	3
HRMG 333	Industrial Relations	3
HRMG 430	Labour Laws	3
MKTG 430	International Marketing	3
MKTG 431	Strategic Marketing	3
MKTG 432	Consumer Behaviour	3
ACCF 431	Taxation	3
<b>TOTAL</b>		<b>36</b>

### AGRICULTURE COURSES

Course Code	Course Title	Credit Hours
SOWA 230	Soils and Water Management	3
CROP 240	Principles of Animal Health	3
ANSC 254	Animal Breeding	3

**SECOND YEAR**

ANSC 251	Principles Of Animal Health	3
CROP 342	Crop Science (Annual Perennial Vegetables And Fruits)	3
CROP 245	Plant Breeding and Seed Production	3

**THIRD YEAR**

ANSC 351	Animal Nutrition and Feeding	3
SOWA 351	Soil Fertility And Fertilizers	3
AGEC 314	Agricultural Marketing	3

**FOURTH YEAR**

AGTE 321	Farm Power and Machinery	3
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ELECTIVES (CHOOSE TWO)

AGEC 313	Agricultural Extension	3
AGIR 401	Sustainable Agriculture	3
AGEC 311	Farm Management	3
CROP 442	Horticultural Crop Development	3

### BIOLOGY COURSES

**FIRST YEAR**

BOTN 101	General Botany	3
ZOOL 102	General Zoology	3
ZOOL 110	Cell Biology And Genetics	3

**SECOND YEAR**

BIOL 115	Ecology	3
ZOOL 210	Animal Anatomies And Physiology	3
BOTN 210	Plant Morphology And Anatomy	3

### THIRD YEAR

**CORE**

MBIO 101	General Microbiology	3
BIOL 225	Evolutionary Biology	3

**ELECTIVE**

BOTN 205	Plant Systematics	3
ZOOL 201	Parasitology	3

**FOURTH YEAR**

**CORE**

BIOL 335	Biological Techniques	3
BOTN 201	Plant Biochemistry And Physiology	3
<b>ELECTIVE</b>		
BOTN 330	Plant Pathology	3
BIOL300	Cytogenetic and Molecular Biology	3
BOIL 101	General Botany	3

### CHEMISTRY COURSES

**FIRST YEAR**

**Core Units**

CHEM 110:	Fundamentals of Inorganic Chemistry	3
CHEM 112:	Organic Chemistry I	3
CHEM 113:	Introduction to Physical Chemistry	3

**SECOND YEAR**

**Core Units**

CHEM 210:	Atomic Structure and Chemical Bonding (prerequisite CHEM 110)	3
CHEM 211:	Introduction to analytical chemistry and Separation techniques	3
CHEM 212:	Organic Chemistry II (prerequisite CHEM 112)	3

**THIRD YEAR**

**Core Units**

CHEM 310:	Comparative study of s and p Block elements (prerequisite CHEM210)	3
CHEM 312:	Stereochemistry, conformational studies and reaction mechanisms (prerequisite CHEM 212)	3
CHEM 313:	Chemical Thermodynamics (prerequisite CHEM 113)	3
CHEM 314:	Comparative study of Transition elements (Prerequisite CHEM 310)	3

**Electives**

CHEM 321:	Introduction to Analytical instrumentation (prerequisite CHEM 211)	3
CHEM 322:	Chemistry of Aromatic compounds	3

CHEM 323:	Chemical Kinetics (prerequisite CHEM 113)	3
CHEM 326:	Chemistry of carbohydrates and proteins (prerequisite CHEM 312)	3
CHEM 327:	Statistical thermodynamics	3
CHEM 343:	Theory of spectroscopic methods (prerequisite CHEM 212)	3

### FORTH YEAR

**Core Units**

CHEM 410:	Coordination and Organometallic chemistry (prerequisite CHEM 314)	3
CHEM 411:	Electrochemistry (prerequisite 113)	3
CHEM 412:	Concepts of Organic synthesis (prerequisite CHEM 212)	3
CHEM 417:	Environmental chemistry	3

**Electives**

CHEM 420:	Quantum Chemistry	3
CHEM 421:	Instrumental methods (prerequisite CHEM 321)	3
CHEM 423:	Surface and Colloidal Chemistry	3
CHEM 442:	Introduction to Natural Products (prerequisite CHEM 412)	3
CHEM 443:	Industrial Chemistry	3

### MATHEMATICS COURSES

MATH 103	Calculus I	3
MATH 110	Linear Algebra I	3

MATH 130	Basic Statistics	3
MATH 132	Probability and Statistics I	3
MATH 210	Linear Algebra II	3
MATH 220	Ordinary Differential Equations I	3
MATH 230	Probability and Statistical II	3
MATH 310	Real Analysis I	3
MATH 320	Numerical Analysis I	3
MATH 414	General Topology	3

### PHYSICS COURSES

PHYS 100	Mechanics (I)	3
PHYS 101	Electricity and Magnetism (I)	3
PHYS 102	Waves and Optics (I)	3
PHYS 200	Mechanics (II)	3
PHYS 201	Waves and Optics (II)	3
PHYS 202	Thermal Physics	3
PHYS 203	Structures and Properties of Matter	3
PHYS 204	Electricity and Magnetism (II)	3
PHYS 205	Modern Physics	3
PHYS 300	Electromagnetism	3
PHYS 301	Quantum Mechanics (I)	3
PHYS 302	Alternating Current Circuit Theory	3
PHYS 303	Semi Conductor Physics and Devices	3
PHYS 400	Classical Mechanics	3
PHYS 401	Electrodynamics	3
PHYS 402	Physics of Materials	3
PHYS 403	Solid State Physics	3

**Application Procedure**

Application forms are available at the Meru Campus and all the other centres. You can also download the application forms from the university website [www.kemu.ac.ke](http://www.kemu.ac.ke)

A non-refundable application fee of Kshs 1000 for East Africans and US\$ 20 for non-East Africans will be charged.

For more information Please Contact: *The Academic Registrar - main Campus*



**KeMU**  
Kenya Methodist University

*The future is here!*

**Bachelor of Education  
(Science)**

## Programme objectives

The Bachelor of Education (Science) programme is designed to prepare science educators and institutional counselors in secondary and tertiary education institutions locally, regionally and internationally. The programme not only offers knowledge and skills in the broad area of education but also allows specialization in teaching of science in secondary schools. In addition, the strong guidance and counseling foundation courses ground graduate teachers to be well equipped as counselors in education institutional settings.

In line with the university's mission, the programme aims at training education and counseling leaders, by equipping them with skills and knowledge to meet the challenges facing individuals and communities, thus contributing to the positive transformation of our society.

## Admission requirements

A mean grade of C+ (Plus) at K.C.S.E level. Equivalent Qualifications

- 2 principals and 1 subsidiary at A-level
- A grade C (plain) and a Diploma in Education from a recognized institution.

## Modes of study

The modes of study for the Bachelor of Education and Counseling (Science) programme are as follows;

- Full-time
- School-based Mode
- Part-Time
- Distance Learning Mode

## Study centres

The programme is available at the Meru Campus (Full-time, DLM & School-Based Only)

## Duration of the study

The programme is structured to take 8 sixteen-week semesters or 4 academic calendar years (2 trimesters in an academic calendar year) in addition to teaching practice. However, the period can be shortened to 3 calendar years by registering for the 3 trimesters in a calendar year.

## Intakes per year

The intakes for this programme are in April, August and December for school-based students and in January, May and September for full-time, and DLM students. However, eligible students can apply for admission throughout the year.

## Credit transfers

Students who register with a Diploma in Education or Counseling from a reputable

institution in the relevant area may be allowed to transfer relevant credits into the programme.

## Employment opportunities

Graduates from this programme can be employed as science graduate teachers in secondary schools and tertiary education institutions, secondary school science curriculum evaluators and designers. They can also be employed as secondary education quality assurance officers or as secondary science education experts in NGOs and other organizations that deal with secondary school education.

The structure of the Bachelor of Education and Counseling (Science) is as follows;

### 1ST YEAR

#### 1ST SEMESTER

Course Code	Course Title	Credit Hours
EDUC 111	History of Education	3
LANG 100	English and Communication Skills	3
COUN 110	Principles of Guidance & Counseling	3
EDUC 110	Philosophy of Education	3
THEO 111	Christian Beliefs	3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

#### 2ND SEMESTER

Course Code	Course Title	Credit Hours
MATH 130	Basic Statistics	3

COMP 100	Computer Applications	3
COUN 120	Human Growth and Development	3
EDUC 112	Sociology of Education	3
COUN 200	Theories of Counseling	3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

### 2ND YEAR

#### 1ST SEMESTER

Course Code	Course Title	Credit Hours
BUSS 114	Entrepreneurship	3
COUN 225	Skills and Techniques of Counseling	3
EDUC 214	Education Psychology	3
EDUC 305	General Teaching Methods	3
HIST 100	History of Kenya	3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

#### 2ND SEMESTER

Course Code	Course Title	Credit Hours
EDUC 300	Curriculum Design And Development	3
COUN 220	Personality Theories	3
EDUC 310	Education Research Methods	3
COUN 210	Life Skills, Substance Abuse and Rehabilitation	3
Subject		3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

### 3RD YEAR

#### 1ST SEMESTER

Course Code	Course Title	Credit hours
ENVI 201	Environmental Education	3
COUN 305	Peer Counseling	3

EDUC 306	Education Technology	3
COUN 300	Counseling Children, Youth & Adults	3
Subject		3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

#### 2ND SEMESTER

Course Code	Course Title	Credit Hours
SSM1	Special Subject Methods 1	3
SSM2	Special Subject Methods 2	3
EDUC 405	Education Tests and Measurements	3
Subject		3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

### 4TH YEAR

#### 1ST SEMESTER

Course Code	Course Title	Credit Hours
EDUC 416	Comparative Education	3
EDUC 415	Education Management & Leadership	3
COUN 400	Vocational and Career Counseling	3
COUN 404	Counseling Children with Special Needs and their Parents	3
Subject		3
Subject		3
<b>Total</b>		<b>21</b>

#### 2ND SEMESTER

Course Code	Course Title	Credit Hours
EDUC 411	Economics of Education & Planning	3
HSCI 225	HIV/AIDS	3
Subject		3
Subject		3
Subject		3

Subject		3
Subject		3
<b>Total</b>		<b>21</b>

Electives (Students to choose any one when offered)

Course Code	Course Title	Credit Hours
COMP 110	Computer Programming	3
COMP 340	Data Base Management	3
COUN 315	Conflict Resolution and Sress Management	3

COUN 410	Group Counseling	3
EDUC 413	Exceptional Learner	3
EDUC 414	Adult Education	3
<b>Total</b>		<b>3</b>

#### Field Attachment/Internship (Core)

Course Code	Course Title	Credit Hours
EDUC 404	Education Project	3
EDUC 408	Teaching Practice	6
<b>Total</b>		<b>9</b>

Courses indicated as subjects depend on the choice of the student's teaching subject and the eligibility criteria of C+ grade at K.C.S.E level for the teaching subject.

#### TEACHING SUBJECTS

Any two teaching subjects, each 36 credit hours combined in the following ways:

Subject 1	36 Credit Hours
Subject 2	36 Credit Hours
<b>Total</b>	<b>72 Credit Hours</b>

#### KISWAHILI CORE COURSES

Course Code	Course Title	Credit Hours
LSWA 100	Utangulizi Katika Somo la Lugha	3
LSWA 105	Historia ya Kiswahili	3
LSWA 110	Fasihi ya Kiswahili	3
LSWA 200	Fonotiki na Fonolojia ya Kiswahili	3

LSWA 205	Mofolojia na Semantiki za Kiswahili	3
LSWA 210	Ushairi	3
LSWA 300	Sintaksia ya Kiswahili	3
LSWA 305	Mbinu za Lugha katika kiswahili	3
LSWA 310	Upaji wa Lugha	3
LSWA 400	Nadharia ya Uhakiki na Sanaa ya kiswahili	3
LSWA 405	Fasihi Simulizi	3

Elective Kiswahili Courses (Student to choose any one course)

Course Code	Course Title	Credit Hours
LSWA 410	Isimu Jamii	3
LSWA 415	Lahaja za Kiswahili	3
LSWA 420	Utafsiri	3
<b>TOTAL</b>		<b>36</b>

#### CRE CORE COURSES

Course Code	Course Title	Credit Hours
REST 100	Introduction to the Study of Religion	3
REST 105	Introduction to African Religion & Culture	3

REST 110	Sociology of Religion	3
REST 200	Comparative Study of Religion	3
REST 300	Introduction to Critical Thinking	3
REST 305	Belief System in Kenya	3
REST 310	Philosophy of Religion	3
REST 400	Religion and Politics in Africa	3

Elective CRE Courses (Student to choose four courses)

Course Code	Course Title	Credit Hours
REST 205	Theology of Old Testament	3
REST 210	Theology of New Testament	3
REST 215	Islamic Theology	3
REST 220	Social Structure in Islam	3
REST 405	Christian Response to Contemporary Issues	3
REST 410	Church History	3

REST 415	Islamic History	3
REST 420	Contemporary Issues in Islam	3
<b>TOTAL</b>		<b>36</b>

#### HISTORY CORE COURSES

Course Code	Course Title	Credit Hours
HIST 105	Introduction to History	3
HIST 200	A Survey of World History	3
HIST 205	East African History	3
HIST 210	Archaeology	3
HIST 245	History of Religions in Africa	3
HIST 300	Studies of African Diaspora and Pan Africanism	3
HIST 305	African Economic History	3
HIST 310	Economic History of Kenya	3
HIST 315	Politics and Law in Kenya Since 1884	3
HIST 400	History of Science and Technology	3
HIST 405	The History of Political Thoughts	3

Elective History Courses (Student to choose any one course)

Course Code	Course Title	Credit Hours
HIST 410	History of Europe Since 1914	3
HIST 415	History of USA Since 1865	3
HIST 420	History of USSR Since 1917	3
HIST 425	Military History	3
HIST 430	History of Japan Since 1914	3
<b>TOTAL</b>		<b>36</b>

#### 3.5.4 ENGLISH CORE COURSES

Course Code	Course Title	Credit Hours
LANG 105	Introduction to the Study of Language	3
LANG 110	Introduction to the Description of English	3
LANG 200	Poetry and Oral Literature	3
LANG 204	East African Prose and Drama	3
LANG 205	Advanced Description of English	3
LANG 210	English Grammar and Usage	3