



SCHOOL OF PHYSICAL SCIENCES GUIDE TO FIRST YEAR COURSE REGISTRATION

Signed: í í í í í í í í í í í í í í Date: í í í í í í í í í í ..
Dean, School of Physical Sciences

FIRST YEAR COURSE REGISTRATION

Note:

1. In their first year of study, all students are required to register a minimum of twelve (12) units.

Bachelor of Science (I20) students can select units from the following Schools/Departments depending on what you want to specialize in:

- Department of Physics
 - Department of Chemistry
 - Department of Meteorology
 - Department of Geology
 - Department of Geography
 - School of Mathematics
 - School of Biological Sciences
2. Bachelor of Science (I20) students must take a minimum combination of three course units from three Schools/Departments, in addition to the three common course units. This is with exception for students intending to register for double mathematics, where they shall register for six (6) mathematics units and another three (3) units from one other school/departments.
 3. Bachelor of Science (I20) students specialize during the third and fourth years of study in either one or two subject areas in which they registered.
 4. Bachelor of Science (I20) students who intend to be admitted into Biochemistry after their first year of study, will be required to select units from Chemistry Department and other units from the School of Biological Sciences that is, Botany/Zoology units and School of Mathematics. This is a competitive programme which admits only the best thirty (30) first year students who have fulfilled the requirements. Students admitted to this programme will in addition to the one year taken at the School of Physical Sciences, take an additional four (4) years. Thus, in total the students take a total of five (5) years.
 5. Students must register Mathematics units when taking Chemistry.

CHEMISTRY DEPARTMENT

BSC INDUSTRIAL CHEMISTRY COURSE OUTLINE YEAR ONE (I08)

Course units	Course title	Hours	Semester
SCH 101	General and Inorganic Chemistry	45	
SCH 102	Introduction to Organic Chemistry, Chemistry of Alkanes and cycloalkanes	45	
SCH 103	General and Physical Chemistry	45	
SCI 104	Foundations of Computer Science	45	
SCA 101	Safety Methods in the Laboratory	45	
SMA 101	Basic Mathematics	45	
SMA 103	Calculus 1	45	
SMA 104	Calculus 2	45	
SCI 101	Elements of Physics I	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

BSC ENVIRONMENTAL CHEMISTRY COURSE OUTLINE YEAR ONE

Course units	Course title	Hours	Semester
SCH 101	General and Inorganic Chemistry	45	
SCH 102	Introduction to Organic Chemistry, Chemistry of Alkanes and cycloalkanes	45	
SCH 103	General and Physical Chemistry	45	
SCI 104	Foundations of Computer Science	45	
SCA 101	Safety Methods in the Laboratory	45	
SMA 101	Basic Mathematics	45	
SMA 103	Calculus 1	45	
SMA 104	Calculus 2	45	
SCI 101	Elements of Physics I	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

BSC ANALYTICAL CHEMISTRY COURSE OUTLINE YEAR ONE (I14)

Course units	Course title	Hours	semester
SCH 101	General and Inorganic Chemistry	45	
SCH 102	Introduction to Organic Chemistry, Chemistry of Alkanes and Cycloalkanes	45	
SCH 103	General and Physical Chemistry	45	
SCI 104	Foundations of Computer Science	45	
SCA 101	Safety Methods in the Laboratory	45	
SMA 101	Basic Mathematics	45	
SMA 103	Calculus 1	45	
SMA 104	Calculus 2	45	
SCI 101	Elements of Physics I	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

BSC CHEMISTRY COURSE OUTLINE YEAR ONE (I64)

Course units	Course title	Hours	Semester
SCH 101	General and Inorganic Chemistry	45	
SCH 102	Introduction to Organic Chemistry, Chemistry of Alkanes and cycloalkanes	45	
SCH 103	General and Physical Chemistry	45	
SCI 104	Foundations of Computer Science	45	
SCA 101	Safety Methods in the Laboratory	45	
SMA 101	Basic Mathematics	45	
SMA 103	Calculus 1	45	
SMA 104	Calculus 2	45	
SCI 101	Elements of Physics I	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

METEOROLOGY DEPARTMENT

BSC METEOROLOGY COURSE OUTLINE YEAR ONE (I10)

Course units	Course title	Hours	Semester
SMR101	Introduction to Meteorology I	45	
SMR102	Introduction to Meteorology II	45	
SMR103	Quantitative Methods and Computer Applications in Meteorology I	45	
SMA101	Basic Mathematics	45	
SMA103	Calculus I	45	
SMA104	Calculus II	45	
SPH101	Mechanics I	45	
SPH102	Electricity & Magnetism I	45	
SPH103	Waves and Optics	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

GEOLOGY DEPARTMENT

BSC GEOLOGY COURSE OUTLINE YEAR ONE (I13)

Course units	Course title	Hours	Semester
SGL101	Materials of the Earth	45	
SGL102	Earth Processes	45	
SGL103	Introduction to Palaeontology	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	
Students intending to specialize in Geology can select courses from the following School/Departments			
Option 1: Mathematics units			
SMA103	Calculus I	45	
SMA104	Calculus II	45	
SMA106	Calculus III	45	
Option 2: Physics units			
SPH101	Mechanics I	45	
SPH102	Electricity & Magnetism I	45	
SPH103	Waves and Optics	45	
Option 3: Chemistry units			
SCH 101	General and Inorganic Chemistry	45	

SCH 102	Introduction to Organic Chemistry, Chemistry of Alkanes and cycloalkanes	45	
SCH 103	General and Physical Chemistry	45	

PHYSICS DEPARTMENT

• Physics (option)

Bachelor of Science (I20) students who wish to Major (specialize) in Physics are required to register for the following course units:

Course units	Course title	Hours	Semester
SPH101	Mechanics I	45	
SPH102	Electricity & Magnetism I	45	
SPH103	Waves and Optics	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	
Elective			
SPH104	Man and the Physical World	45	
First year students who wish to combine Physics with mathematics, must register for the following units:			
SMA101	Basic Mathematics	45	
SMA103	Calculus I	45	
SMA140	Introduction to Probability and Statistics	45	

Other courses can be taken from the following Schools/Departments:

School of Mathematics

Dept. of Geography

Dept. of Meteorology

Dept. of Geology

Dept. of Chemistry

Students are required to take a minimum of 12 units. Kindly consult the Schools/Departments on the course units to be registered.

**BSC ASTRONOMY AND ASTROPHYSICS COURSE OUTLINE YEAR ONE
(I44)**

Course units	Course title	Hours	Semester
SPA101	Introductory Astronomy	45	
SPA102	Gravitation and the Solar System	45	
SPH101	Mechanics I	45	
SPH102	Electricity & Magnetism I	45	
SPH103	Waves and Optics	45	
SPH107	Programming Methods	45	
SMA103	Calculus I	45	
SMA104	Calculus II	45	
SMA140	Introduction to Probability and Statistics		
CCS001	Communication skills	45	

CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

**BSC MICROPROCESSOR TECHNOLOGY & INSTRUMENTATION COURSE
OUTLINE YEAR ONE (I39)**

Course unit	Course title	Hours	Semester
SPH101	Mechanics I	45	
SPH102	Electricity & Magnetism I	45	
SPH103	Waves and Optics	45	
SPH105	Mathematics	45	
SPH106	Introduction to Computers	45	
SPH107	Programming Methods	45	
SPH108	Information Systems Analysis & Design	45	
SPH109	Introduction to Operating Systems	45	
SPH110	Communication Skills	45	
SPH111	Entrepreneurship I	45	
SPH112	Selected Scientific Instruments	45	
SPH113	Data Structure & Algorithms	45	
SPH114	Computer Laboratory I	45	

CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

SCHOOL OF MATHEMATICS

- **Mathematics (option)**

Bachelor of Science (I20) students who wish to Major (specialize) in Mathematics are required to register for the following course units in addition to courses from one other department.

Course units	Course title	Hours	Semester
SMA101	Basic Mathematics	45	
SMA103	Calculus I	45	
SMA104	Calculus II	45	
SMA105	Geometry	45	
SMA106	Calculus III	45	
SMA140	Introduction to Probability & Statistics	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

Other courses can be taken from the following Schools/Departments:

Dept. of Geography

Dept. of Meteorology

Dept. of Geology

Dept. of Chemistry

Dept. of Physics

School of Biological Sciences

Students are required to take a minimum of 12 units. Kindly consult the Schools/Departments on the course units to be registered.

SCHOOL OF BIOLOGICAL SCIENCES

▪ Botany option

Bachelor of Science (I20) students who wish to Major (specialize) in Botany are required to register for the following course units:

Course units	Course title	Hours	Semester
SBT101	Survey of the Plant Kingdom	45	
SBT102	Introductory Biochemistry & Genetics	45	
SBT103	Lower Plants	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

Elective			
SBT104	Principles of Plant Ecology	45	
<p>Other courses can be taken from the following Schools/Departments:</p> <p>School of Biological Sciences (Zoology units)</p> <p>Dept. of Meteorology</p> <p>Dept. of Geology</p> <p>Dept. of Chemistry</p> <p>Dept. of Physics</p> <p>School of Mathematics</p> <p>Students are required to take a minimum of 12 units. Kindly consult the Schools/Departments on the course units to be registered.</p>			

▪ **Zoology Option**

Bachelor of Science (I20) students who wish to Major in Zoology are required to register for the following course units:

Course units	Course title	Hours	Semester
SZL101	Invertebrate Zoology	45	
SZL102	Vertebrate Zoology	45	
SZL103	Fundamentals of Ecology	45	
CCS001	Communication skills	45	
CCS009	Elements of Economics	45	
CCS010	HIV/AIDS	45	

Elective			
SBT104	Principles of Plant Ecology	45	

Other courses can be taken from the following Schools/Departments:

School of Biological Sciences (Botany units)

Dept. of Meteorology

Dept. of Geology

Dept. of Chemistry

Dept. of Physics

School of Mathematics

Students are required to take a minimum of 12 units. Kindly consult the Schools/Departments on the course units to be registered.

Contacts

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