

## OPTION 4

### (a) MATHEMATICS WITH EDUCATION

#### Part I

Twenty-four (24) credits from **two** subject areas in the Pure and Applied Sciences divided equally between the two so as to provide the prerequisite for Part II courses. One of the subject areas must be Mathematics (required courses are M10A/MATH1140 and M10B/MATH1150). Foundations of Education courses (see A below) may also be taken with Part I courses from the Faculty of Pure and Applied Sciences.

#### Part II

A major in Mathematics (thirty-two (32) credits), together with:

- (i) Twenty four (24) credits from the Education core courses listed below, see **Section B: Specializations**
- (ii) 

ED30T/EDTL320	Preparing for the Field	(3 credits) Sem.1
ED30U/EDTL3021	In the Field	(3 credits) Sem.1
ED30S/EDRS3019	The Report	(3 credits) Sem.2

### CORE COURSES FROM THE FACULTY OF HUMANITIES AND EDUCATION

#### A. FOUNDATIONS OF EDUCATION (may be taken in Part I)

ED20C/EDPS2003	Motivation and the Teacher	(3 credits) Sem.1
ED20M/EDCU2013	Introduction to Curriculum Studies	(3 credits) Sem.1
ED30D/EDCE3004	Educational Technology	(3 credits) Sem.1

#### B. SPECIALIZATIONS

##### 1. Theoretical Aspects (Science)

ED20F/EDME2006	Classroom Testing and Evaluation	(3 credits) Sem.1
ED24C/EDSC2403	Nature of Science and Scientific Enquiry	(3 credits) Sem.1
ED24G/EDSC2407	Teaching Methodologies in Science	(3 credits) Sem.1
ED24F/EDSC2406	Psychology & Sociology of Science Teaching & Learning	(3 credits) Sem.1

## 2. Theoretical Aspects (Mathematics)

ED32H/EDMA3208	The History and Development of Mathematics Ideas	(3 credits)	Sem.2
ED22F/EDMA2206	The Nature and Scope of Mathematics in Secondary School and Beyond	(3 credits)	Sem.2
ED32C/EDMA3203	Analysis and Teaching of Mathematics	(3 credits)	Sem.2
ED32E/EDMA3205	CXC (General) Mathematics: Specialist Topics	(3 credits)	Sem.2

### (b) CHEMISTRY WITH EDUCATION

The programme is as for Option 4(a) except that Chemistry replaces Mathematics. The following compulsory courses must be done regardless of the sub-Option chosen:

ED30T/EDTL320	Preparing for the Field
ED30U/EDTL321	In the Field
ED30S/EDRS3019	The Report

### (c) PHYSICS WITH EDUCATION

The programme is as for Option 4(a) except that Physics replaces Mathematics. The following compulsory courses must be done regardless of the Option:

ED30T/EDTL320	Preparing for the Field
ED30U/EDTL321	In the Field
ED30S/EDRS3019	The Report

### (d) BIOLOGY WITH EDUCATION

#### Part I

Twenty four (24) credits in Level 1 biology in Pure and Applied Sciences' courses including BL12C/BIOL1016 Cells, Molecular Biology & Genetics and BL12B/BIOL1261 Diversity of Organisms. Foundation courses in Education should be taken with Part I courses in Pure and Applied Sciences.

#### Year 1

##### Semester I

	BL12C/BIOL1016	Cells, Molecular Biology & Genetics	(6 credits)
	FPAS Level 1 course		(6 credits)
	ED20C/EDPS2003	Motivation and the Teacher	(6 credits)
Either	ED20M/EDCU2013	Introduction to the Curriculum	(3 credits)
Or	ED10T/EDTL1020	Introduction to Teaching & Learning	(3 credits)

## Semester II

	FPAS Level 1 course (BC10M/BIOC1011 highly recommended)	(6 credits)
	BL12B/BIOL1261 Diversity of Organisms	(6 credits)
	ED30D/EDTK3004 Educational Technology	(3 credits)
Either	ED34H/EDSC3408 Environmental Education	(3 credits)
Or	ED10U/EDTL1021 Planning for Teaching	(3 credits)

## Part II

**A major in Biology (Life Sciences)** 32 credits consisting of BL20J/BIOL2011 General & Molecular Genetics, BL20P/BIOL2015 Biometry, BL20N/BIOL2014 Ecology, BL20K/BIOL2012 Evolutionary Biology, BT21B/BOTN2011 Seed Plants, BT22A/BOTN2012 Plant Physiology, Z 20G/ZOOL2012 Functional Organisation of Animals I (Maintenance Systems), and Z 20H/ZOOL2013 Functional Organisation of Animals II (Coordination, Protection & Movement), plus 6 credits from the Department of Educational Studies each semester as follows:

### Year 2

#### Semester I

BL20J/BIOL2011	General & Molecular Genetics	(4 credits)
BL20P/BIOL2015	Biometry	(4 credits)
ED24G/EDSC2407	Teaching Methodologies in Science	(3 credits)
ED 24E/EDSC2405	The Psychology of Science Teaching and Learning	(3 credits)

#### Semester II

BT21B/BOTN2011	Seed Plants	(4 credits)
BT22A/BOTN2012	Plant Physiology	(4 credits)
ED34Q/EDSC3417	Introduction to Secondary Science Practicals	(3 credits)
ED20U/EDTL2021	School Based Experience I	(3 credits)

### Year 3

#### Semester I

BL20K/BIOL2012	Evolutionary Biology	(4 credits)
BL20N/BIOL2014	Ecology	(4 credits)
ED30T/EDSC3020	The Teacher as Researcher	(3 credits)
ED34C/EDSC3403	Assessment in Science Teaching	(3 credits)

#### Semester II

Z 20G/ZOOL2012	Functional Organisation of Animals I (Maintenance Systems)	(4 credits)
Z 20H/ZOOL2013	Functional Organisation of Animals II (Coordination, Protection & Movement)	(4 credits)
ED30Q/EDTL3017	School Based Experience II	(3 credits)
ED30S/EDSC3019	Classroom Enquiry	(3 credits)