



# **FACULTY OF SCIENCE AND AGRICULTURE**

## **SCHOOL OF PHYSICAL AND MINERAL SCIENCES**

**ACADEMIC YEAR 2023**

### **REGISTRATION GUIDELINES FOR POSTGRADUATE QUALIFICATIONS**

# MODULES TO REGISTER: 2023

## POSTGRADUATE PROGRAMMES

### HONOURS PROGRAMMES

Bachelor of Science Honours (**Chemistry Stream**):

HSCA01

#### CURRICULUM

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>1ST SEMESTER</b>						
<b>1ST SEMESTER COMPULSORY MODULES</b>						
Advanced Inorganic Chemistry	SCHB081			Yes	20	0.167
Advanced Organic Chemistry	SCHA081			Yes	20	0.167
<b>Total Credits: 1ST SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>2ND SEMESTER</b>						
<b>2ND SEMESTER COMPULSORY MODULES</b>						
Advanced Analytical Chemistry	SCHB082			Yes	20	0.167
Advanced Physical Chemistry	SCHA082			Yes	20	0.167
<b>Total Credits: 2ND SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						

Research Project	SCHM080			Yes	40	0.332
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.332</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>80</b>	<b>0.668</b>
<b>Total Credits: BACHELOR OF SCIENCE HONOURS</b>					<b>120</b>	<b>1</b>

**Bachelor of Science Honours (Geology Stream):**

**HSG01**

**CURRICULUM**

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>1ST SEMESTER</b>						
<b>1ST SEMESTER COMPULSORY MODULES</b>						
Advanced Petrology And Petrography	SGLB081			Yes	20	0.167
African Geology And Ore Deposit Genesis	SGLA081			Yes	20	0.167
<b>Total Credits: 1ST SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>2ND SEMESTER</b>						
<b>2ND SEMESTER COMPULSORY MODULES</b>						
Ore Mineralogy, Microscopy And Genesis	SGLB082	SGLB081		Yes	20	0.167
Prospecting And Reserve Evaluation	SGLA082	SGLB081		Yes	20	0.167
<b>Total Credits: 2ND SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Geology)	SGLA080			Yes	40	0.332
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.332</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>80</b>	<b>0.668</b>
<b>Total Credits: BACHELOR OF SCIENCE HONOURS</b>					<b>120</b>	<b>1</b>

**Bachelor of Science Honours (Mining Geology):**

**HSM01**

**CURRICULUM**

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>1ST SEMESTER</b>						
<b>1ST SEMESTER COMPULSORY MODULES</b>						
Advanced Petrology And Petrography	SGLB081			Yes	20	0.167
African Geology And Ore Deposit Genesis	SGLA081			Yes	20	0.167
<b>Total Credits: 1ST SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>2ND SEMESTER</b>						
<b>2ND SEMESTER COMPULSORY MODULES</b>						
Mine Mapping and Ore Reserve Calculation	SGMA082	SGLB081		Yes	20	0.167
Introduction to Engineering Geology and SHE (Safety, Health and Environment) in Mining	SGMB082	SGLB081		Yes	20	0.167
<b>Total Credits: 2ND SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Mining Geology)	SGMA080			Yes	40	0.332
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.332</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>80</b>	<b>0.668</b>
<b>Total Credits: BACHELOR OF SCIENCE HONOURS</b>					<b>120</b>	<b>1</b>

**Bachelor of Science Honours (Mineral Processing and Ore Beneficiation): HSP01**

**CURRICULUM**

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>1ST SEMESTER</b>						
<b>1ST SEMESTER COMPULSORY MODULES</b>						
Advanced Petrology And Petrography	SGLB081			Yes	20	0.167
African Geology And Ore Deposit Genesis	SGLA081			Yes	20	0.167
<b>Total Credits: 1ST SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>2ND SEMESTER</b>						
<b>2ND SEMESTER COMPULSORY MODULES</b>						
Mineral Processing and Metallurgy	SMPA082	SGLB081		Yes	20	0.167
Analytical Techniques in Mineralogy	SMPB082	SGLB081		Yes	20	0.167
<b>Total Credits: 2ND SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Mineral Processing)	SMPA080			Yes	40	0.332
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.332</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>80</b>	<b>0.668</b>
<b>Total Credits: BACHELOR OF SCIENCE HONOURS</b>					<b>120</b>	<b>1</b>

**Bachelor of Science Honours (Physics Stream):**

**HSCC01**

**CURRICULUM**

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>1ST SEMESTER</b>						
<b>1ST SEMESTER COMPULSORY MODULES</b>						
Quantum Mechanics	SPHA081			Yes	20	0.167
Statistical Mechanics	SPHB081			Yes	20	0.167

<b>Total Credits: 1ST SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>2ND SEMESTER</b>						
<b>2ND SEMESTER COMPULSORY MODULES</b>						
Electrodynamics	SPHA082			Yes	20	0.167
Solid State Physics	SPHB082			Yes	20	0.167
<b>Total Credits: 2ND SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project	SPHS080			Yes	40	0.332
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.332</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>80</b>	<b>0.668</b>
<b>Total Credits: BACHELOR OF SCIENCE HONOURS</b>					<b>120</b>	<b>1</b>

## MASTERS PROGRAMMES

**Master of Science (M.Sc.):**

**MSCA01**

**CURRICULUM**

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>YEAR</b>						
<b>YEAR ELECTIVE MODULES</b>						
Chemistry	SCHA090			Yes	180	1.0
Geology	SGLA090			Yes	180	1.0
Physics	SPHA090			Yes	180	1.0
<b>Total Credits: YEAR</b>					<b>180</b>	<b>1.0</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>180</b>	<b>1.0</b>
<b>Total Credits: MASTER OF SCIENCE</b>					<b>180</b>	<b>1.0</b>

## DOCTORAL PROGRAMMES

Doctor of Philosophy (Ph.D.):

DHSB01

### CURRICULUM

Module Name	Code	Prerequisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL P</b>						
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Thesis (Chemistry)	SCHA100			Yes	360	2.0
Thesis (Geology)	SGLA100			Yes	360	2.0
Thesis (Physics)	SPHA100			Yes	360	2.0
<b>Total Credits: YEAR</b>					<b>360</b>	<b>2.0</b>
<b>Total Credits: YEAR LEVEL P</b>					<b>360</b>	<b>2.0</b>
<b>Total Credits: DOCTOR OF SCIENCE</b>					<b>360</b>	<b>2.0</b>