



# **FACULTY OF SCIENCE AND AGRICULTURE**

## **SCHOOL OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES**

**ACADEMIC YEAR 2021**

### **REGISTRATION GUIDELINES FOR UNDERGRADUATE QUALIFICATIONS**

# MODULES TO REGISTER: 2021

## Bachelor of Agricultural Management - BAM01

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Microeconomics	SAGE011			Yes	12	0.100
Elementary Mathematics	SSTA011			Yes	12	0.100
Introduction to Animal Science	SANL011			Yes	12	0.100
Introduction to Biological Sciences	SPLN011			Yes	12	0.100
Introduction to Soil Science	SSSC011			Yes	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Macroeconomics	SAGE012			Yes	12	0.100
Elementary Statistical Methods	STAA012			Yes	12	0.100
Introduction to Plant Production	SPLN012			Yes	12	0.100
Principles of Animal Genetics	SANL012			Yes	12	0.100

Soil Formation and Classification	SSSC012			Yes	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>120</b>	<b>1.000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Basic and Intermediate Farm Management	SAGA021	SAGE011 SAGE012		Yes	16	0.125
Fundamentals of Nutrition	SANA021	SANL011		Yes	16	0.125
Plant Nutrition and Soil Fertility	SSCA021	SPLN012		Yes	16	0.125
Principles of Field Crop Production	SPPA021	SPLN012		Yes	16	0.125
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>64</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Basic and Intermediate Agricultural Marketing	SAGA022	SAGA021		Yes	16	0.125
Feeds and Feeding Systems	SANA022	SANA021		Yes	16	0.125
Planted Pastures and Rangeland Management	SPPA022	SPLN012		Yes	16	0.125
Soil Biology	SSCA022	None		Yes	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>64</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 3</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural and Rural Development	SAGA031	SAGA022		Yes	16	0.125
Animal Health	SANA031	SANA021 SANA022		Yes	16	0.125
Field Identification of Soils	SSCA031	SSSC012		Yes	16	0.125
Principles of Fruit and Vegetables Crops Production	SPPA031	SPLN012		Yes	16	0.125
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>64</b>	<b>0.500</b>

2 <sup>ND</sup> SEMESTER						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Project Analysis	SAGA032	SAGA031		Yes	16	0.125
Cropping Systems, Organic and Nature Farming	SPPA032	SPPA031		Yes	16	0.125
Farm Animal Management	SANA032	SANA031		Yes	16	0.125
Irrigation and Soil Water Balance	SSCA032	SSCA021		Yes	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>64</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 3</b>					<b>128</b>	<b>1.000</b>
<b>Total Credits: Bachelor of Agricultural Management</b>					<b>376</b>	<b>3.000</b>

**Department of Agricultural Economics and Animal Production & Centre for Rural  
Community Empowerment**

**Bachelor of Science in Agriculture: Agricultural Economics-BAG01**

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Elementary Linear Algebra and Statistics	SSMA011			No	12	0.100
Elementary Statistics I	STAC011			No	12	0.100
Introduction to Business Management	CBMA011			No	12	0.100
Health Education and Life Competencies I	SHEL011			No	12	0.100

Introduction to Biological Studies	SBIO011			No	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER ELECTIVE MODULES</b>						
Elementary Linear Algebra and Statistics	SSMA012			No	12	0.100
Elementary Statistics II	STAC012			No	12	0.100
Health Education and Life Competencies II	SHEL012			No	12	0.100
Introduction to Business Management	CBMA012			No	12	0.100
Regional Studies	SGEO012			No	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>120</b>	<b>1.000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Microeconomics	SAGB021	None		Yes	16	0.133
Entrepreneurship	CBMA021	CBMA011		No	16	0.133
		CBMA012				
Introduction to Animal Science	SANB021	None		No	12	0.100
Introduction to Plant Production	SPPB021	SBIO011		No	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>56</b>	<b>0.466</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Macroeconomics	SAGB022	SAGB021		Yes	16	0.134
Basic and Intermediate Farm Management	SAGD022	None		Yes	12	0.100
Development Planning and Rural Finance	SAGC022	SAGB021		Yes	12	0.100
Introduction to Agricultural Mechanization	SPPC022	SSTA011		No	12	0.100
		SGEP012				
Introduction to Rural Sociology	SAGX022	None		No	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>64</b>	<b>0.534</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>120</b>	<b>1.000</b>
<b>YEAR LEVEL 3</b>						

<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural and Rural Development	SAGC031	SAGC022		Yes	12	0.094
Basic and Intermediate Agricultural Marketing	SAGD031	SAGD022		Yes	12	0.094
Agricultural Project Analysis	SAGB031	SAGD022		Yes	12	0.094
Introduction to Agricultural Extension	SAGX031	SAGX022		No	12	0.094
<b>1<sup>ST</sup> SEMESTER ELECTIVE <u>Choose 01</u> MODULES</b>						
Poultry and Pig Production	SANB031	None		No	12	0.094
Principles of Field Crop Production	SPPB031	SPPB021		No	12	0.096
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.470</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Policy Analysis	SAGB032	SANB021		Yes	12	0.094
International Trade	SAGC032	SAGC022		Yes	12	0.094
Local Economic Development	SAGE032	CBMA011		Yes	12	0.094
		CBMA022				
Production Economic	SAGD032	SAGD031		Yes	12	0.094
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>48</b>	<b>0.376</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Experiential Training (Agricultural Economics)	SEPA030	None		Yes	20	0.154
<b>Total Credits: YEAR</b>					<b>20</b>	<b>0.154</b>
<b>Total Credits: YEAR LEVEL 3</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 4</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Econometrics	SAGA041	SAGC022		Yes	16	0.125
Mathematical Economics	SAGB041	SAGD032		Yes	16	0.125
Microeconomic Theory	SAGC041	SAGB022		Yes	16	0.125
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
<b>2<sup>ND</sup> SEMESTER</b>						

<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Agribusiness Management	SAGB042	SAGE032		Yes	16	0.125
Macroeconomic Theory	SAGD042	SAGB022		Yes	16	0.125
<b>2<sup>ND</sup> SEMESTER ELECTIVE <u>Choose 01</u> MODULES</b>						
<del>Institutional Economics</del>	<del>SAGC042</del>	<del>SAGD032</del>		No	16	0.125
Resource Economics	SAGA042	SAGD032		No	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Agric. Economics)	SAGR040	None		Yes	32	0.250
<b>Total Credits: YEAR</b>					<b>32</b>	<b>0.250</b>
<b>Total Credits: YEAR LEVEL 4</b>					<b>128</b>	<b>0.1000</b>
<b>Total Credits: Bachelor of Science In Agriculture in Agricultural Economics</b>					<b>496</b>	<b>4000</b>

## Bachelor of Science in Agriculture: Animal Production-BAF01

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Basic Physics 1A	SPHY011			No	12	0.100
Elementary Mathematics	SSTA011			No	12	0.100
General Chemistry for Life and Health Sciences	SCHE011			No	12	0.100
Health Education and Life Competencies I	SHEL011			No	12	0.100
Introduction to Biological Studies	SBIO011			No	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						

<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Animal Biology	SZOO012			No	12	0.100
Elementary Statistical Methods	STAB012			No	12	0.100
Health Education and Life Competencies li	SHEL012			No	12	0.100
Introduction to The Physical Environment	SGEP012			No	12	0.100
Organic Chemistry for Life and Health Sciences	SCHE012			No	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>120</b>	<b>1.000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Microeconomics	SAGB021	None		No	16	0.129
Biomolecules and Intermediary Metabolisms	SBCA021	None		No	20	0.160
Introduction to Animal Science	SANB021	None		Yes	12	0.097
Introduction to Plant Production	SPPB021	SBIO011		No	12	0.097
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.483</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Anatomy and Adaptation Physiology	SANB022	None		Yes	16	0.129
Basic and Intermediate Farm Management	SAGD022	SAGB021		No	12	0.097
Fundamentals of Nutrition	SANC022	SANB021		Yes	12	0.097
Introduction to Agricultural Mechanization	SPPC022	SSTA011 and SGEP012		No	12	0.097
Introduction to Rural Sociology	SAGX022	None		No	12	0.097
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>64</b>	<b>0.517</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>124</b>	<b>1.000</b>
<b>YEAR LEVEL 3</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Animal Health	SANC031	SANB021 SANC022		Yes	12	0.094
Basic and Intermediate Agricultural Marketing	SAGD031	SAGD022		No	12	0.094



Poultry and Pig Production	SANB031	SANB021		Yes	12	0.094
Principles of Field Crop Production	SPPB031	SPPB021		No	12	0.094
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.376</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Biometry	SPPE032	SSTA011		No	12	0.094
Feeds and Feeding Systems	SANB032	SANC022		Yes	12	0.094
Planted Pastures and Rangeland Management	SPPB032	SPPB021		No	12	0.094
Principles of Animal Genetics and Breeding	SANC032	SANB021		Yes	12	0.094
Reproduction Physiology	SAND032	SANB021		Yes	12	0.094
		SANC031				
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.470</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Experiential Training (Animal Production)	SEPA030	None		Yes	20	0.154
<b>Total Credits: YEAR</b>					<b>20</b>	<b>0.154</b>
<b>Total Credits: YEAR LEVEL 3</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 4</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Advanced Animal Breeding	SANA041	SANC032		Yes	12	0.093
Defoliation, Rest, Growth and Veld Evaluation	SPPC041	SPPB032		No	16	0.125
Small Stock and Beef Production	SANB041	SAND032		Yes	16	0.125
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>44</b>	<b>0.343</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Dairy Production and Management	SANA042	SAND032		Yes	12	0.094
Digestion and Metabolism in Livestock	SANC042	SANB041		Yes	12	0.094
Game Production and Management	SANB042	SANB021		Yes	12	0.094
		SAND032				
Planted Pasture and Fodder Flow Planning	SPPB042	SPPC041		No	16	0.125

<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>52</b>	<b>0.407</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Animal Production)	SANR040	None		Yes	32	0.250
<b>Total Credits: YEAR</b>					<b>32</b>	<b>0.250</b>
<b>Total Credits: YEAR LEVEL 4</b>					<b>128</b>	<b>1.000</b>
<b>Total Credits: Bachelor of Science in Agriculture in Animal Production</b>					<b>500</b>	<b>4.000</b>

## Department of Geography and Environmental Sciences

### Bachelor of Science in Environmental and Resource Studies-BSE01

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Air Photo Reading	SAIR011			No	8	0,063
Cartographic Techniques	SCAR011			No	12	0,093
Introduction to The Physical Environment	SGES011			No	12	0,094
Elementary Mathematics	SSTA011			No	12	0,094
Health Education and Life Competencies I	SHEL011			No	12	0,094
Introduction to Biological Studies	SBIO011			No	12	0.093
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>68</b>	<b>0.531</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Introduction to The Human Environment	SGES012			No	12	0.094
Regional Studies	SGEO012			No	12	0.094
Elementary Statistical Methods	STAB012			No	12	0.094
Health Education and Life Competencies II	SHEL012			No	12	0.094
Plant Biology	SBOT012			No	12	0.093
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.469</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Computer-Assisted Cartography	SGEA021	SAIR011		Yes	4	0.31

Introduction to Environmental and Resource Management	SENA021	SGES011		Yes	12	0.094
Introduction to Geomorphology	SGEB021	SGES011		Yes	16	0.125
Plant Taxonomy and South African Flora	SBOA021	None		No	20	0.156
Economic Geography	SENB021	SGES012		Yes	08	0.063
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.468</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Demographic and Population Studies	SGEB022	SGES012		Yes	12	0.094
Quantitative Techniques in Geography	SENB022	SGES012		Yes	12	0.094
Introduction to Climatology	SENA022	SGES011		Yes	16	0.125
People, Space and Environment	SGEA022	None		Yes	12	0.094
Introduction to Remote Sensing and GIS	SGED022	SAIR011 SCAR011		Yes	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>68</b>	<b>0.532</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 3</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Applied Climatology	SENA031	SENA022		Yes	16	0.125
Applied Geomorphology	SGEB031	SGEB021		Yes	16	0.125
Human Settlements	SGEA031	SGEB022		Yes	8	0.063
Quantitative Techniques in Geography	SGEC031	SGEG021		Yes	12	0.093
Tourism Studies	SENB031	SGEG022		Yes	8	0.063
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.469</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Environment, Resource Planning and Management	SENA032	SENA021		Yes	12	0.093
Impacts Studies	SENB032	SENA021		Yes	12	0.094
Natural Resource Ecology	SENC032	SENA021		Yes	16	0.125
Remote Sensing and GIS	SGEA032	SGED022		Yes	16	0.125
Solid Waste Management	SEND032	SENA021		Yes	12	0.094

<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>68</b>	<b>0.531</b>
<b>Total Credits: YEAR LEVEL 3</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 4</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER MODULES</b>						
<b>The following 1 Module is compulsory</b>						
Geographical Information Systems	SGEA041	SGEA032		Yes	20	0.167
<b>Choose <u>Only 01</u> from the following electives</b>						
Advanced Natural Resource Ecology	SENB041	SENC032		Yes	20	0.167
Sustainable Resource Development	SENC041	SENA032		Yes	20	0.167
<del>Demographic Studies</del>	<del>SEND041</del>	<del>SENA032</del>		Yes	20	0.167
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER MODULES</b>						
<b>The following 1 Module is compulsory</b>						
Elements of Environmental Management	SENE042	SGEA031		Yes	20	0.167
<b>Choose <u>Only 01</u> from the following electives</b>						
Land Degradation	SENA042	SGEB031		Yes	20	0.167
Waste Management	SEND042	SEND032		Yes	20	0.167
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>40</b>	<b>0.334</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Environ and Resource)	SENR040	None		Yes	40	0.332
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.334</b>
<b>Total Credits: YEAR LEVEL 4</b>					<b>120</b>	<b>1.000</b>
<b>Total Credits: BSc in Environmental and Resource Studies</b>					<b>504</b>	<b>4.000</b>

## Department of Plant Production, Soil Science and Agricultural Engineering

### Bachelor of Science in Agriculture: Plant Production-BAP01

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Basic Physics 1A	SPHY011			No	12	0.100
Elementary Mathematics	SSTA011			No	12	0.100
Health Education and Life Competencies I	SHEL011			No	12	0.100
Introduction to Biological Studies	SBIO011			No	12	0.100
General Chemistry For Life + Health Sciences	SCHE011			No	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Elementary Statistical Methods	STAB012			No	12	0.100
Health Education and Life Competencies II	SHEL012			No	12	0.100
Introduction to the Physical Environment	SGEP012			No	12	0.100
Organic Chemistry for Life + Health Sciences	SCHE012			No	12	0.100
Plant Biology	SBOT012			No	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>120</b>	<b>1,000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Microeconomics	SAGB021	None		No	16	0.125
Introduction to Animal Science	SANB021	None		No	12	0.094

Introduction to Plant Production	SPPB021	SBIO011		Yes	12	0.093
Introduction to Soil Science	SSCB021	SCHE011 SCHE012 SGEP012		No	12	0.094
Pest, Pathogen and Weed Management	SPPC021	SBOT012		No	16	0.125
<b>Total Credits: 1ST SEMESTER</b>					<b>68</b>	<b>0.531</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Basic and Intermediate Farm Management	SAGD022	None		No	12	0.094
Introduction to Agricultural Mechanization	SPPC022	SSTA011 SGEP012		Yes	12	0.094
Introduction to Rural Sociology	SAGX022	None		No	12	0.094
Plant Genetics	SPPB022	SPPB021		Yes	12	0.093
Soil Formation and Classification	SSCB022	SSCB021		No	12	0.094
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.469</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>128</b>	<b>1,000</b>
<b>YEAR LEVEL 3</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Introduction to Agricultural Extension	SAGX031	None		No	12	0.100
Plant Nutrition and Soil Fertility	SSCB031	SSCB021		No	12	0.100
		SSCB022				
Principles of Field Crop Production	SPPB031	SPPB021		Yes	12	0.100
Principles of Vegetable Crops Production	SPPC031	SPPB021		Yes	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.400</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Biometry	SPPE032	SSTA011		Yes	12	0.100
Cropping Systems, Organic and Nature Farming	SPPF032	SPPB031		Yes	16	0.133
Principles of Fruit Crops Production	SPPC032	SPPB021		Yes	12	0.100
<b>2<sup>ND</sup> SEMESTER ELECTIVE MODULES (Choose 01 module)</b>						
Plant Breeding	SPPD032	SPPB022		No	12	0.100
Planted Pastures and Rangeland Management	SPPB032	SPPB021		No	12	0.100

<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>						<b>64</b>	<b>0.433</b>
<b>YEAR COMPULSORY MODULES</b>							
Experiential Training (Plant Production)	SEPA030	None		Yes	20	0.167	
<b>Total Credits: YEAR</b>						<b>20</b>	<b>0.167</b>
<b>Total Credits: YEAR LEVEL 3</b>						<b>120</b>	<b>1,000</b>
<b>YEAR LEVEL 4</b>							
<b>1<sup>ST</sup> SEMESTER</b>							
<b>AGRONOMY</b>							
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>							
Advanced Soil, Plant And Water Analysis	SSCA041	SSCB031		No	16	0.125	
Cereal And Grain Legume Cultivation	SPPA041	SPPB031		Yes	16	0.125	
Seed Technology and Nursery Culture	SPPB041	SPPF032		Yes	16	0.125	
<b>Total Credits: 1ST SEMESTER</b>						<b>48</b>	<b>0.375</b>
<b>2<sup>ND</sup> SEMESTER</b>							
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>							
Post-Harvest Technology	SPPD042	SPPC031		Yes	16	0.125	
		SPPC032					
Deciduous, Tropical and Subtropical Fruit Crops Production	SPPE042	SPPC032		Yes	16	0.125	
Tuber, Oilseeds and Fibre Crops	SPPA042	SPPB031		Yes	16	0.125	
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>						<b>48</b>	<b>0.375</b>
<b>YEAR LEVEL 4</b>							
<b>1<sup>ST</sup> SEMESTER</b>							
<b>PASTURE SCIENCE</b>							
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>							
Advanced Soil, Plant and Water Analysis	SSCA041	SSCB031		No	16	0.125	
Seed Technology and Nursery Culture	SPPB041	SPPF032		Yes	16	0.125	
Veld Evaluation: Defoliation, Rest and Growth	SPPC041	SPPB032		Yes	16	0.125	
<b>Total Credits: 1ST SEMESTER</b>						<b>48</b>	<b>0.375</b>
<b>2<sup>ND</sup> SEMESTER</b>							
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>							



Post-Harvest Technology	SPPD042	SPPC031		Yes	16	0.125
		SPPC032				
Veld Management Systems	SPPF042	SPPC041		Yes	16	0.125
Advanced Planted Pasture and Fodder Flow Planning	SPPB042	SPPC041		Yes	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
<b>YEAR LEVEL 4</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>HORTICULTURE</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Advanced Soil, Plant and Water Analysis	SSCA041	SSCB031		No	16	0.125
Seed Technology and Nursery Culture	SPPB041	SPPF032		Yes	16	0.125
Advanced Vegetable Crops Production	SPPD041	SPPC032		Yes	16	0.125
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Post-Harvest Technology	SPPD042	SPPC031		Yes	16	0.125
		SPPC032				
Deciduous, Tropical and Subtropical Fruit Crops Production	SPPE042	SPPC032		Yes	16	0.125
Citrus Production	SPPC042	SPPC032		Yes	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
<b>YEAR</b>						
<b>YEAR COMPULSORY MODULES</b>						
Research Project (Plant Production)	SPPR040			Yes	32	0.250
<b>Total Credits: YEAR</b>					<b>32</b>	<b>0.250</b>
<b>Total Credits: YEAR LEVEL 4</b>					<b>128</b>	<b>1.000</b>
<b>Total Credits: Bachelor of Science in Agriculture in Plant Production</b>					<b>496</b>	<b>4000</b>

## Bachelor of Science in Agriculture: Soil Science-BAS01

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Basic Physics 1A	SPHY011			No	12	0.100
Elementary Mathematics	SSTA011			No	12	0.100
General Chemistry 1A	SCHM011			No	12	0.100
Health Education and Life Competencies I	SHEL011			No	12	0.100
Introduction to Biological Studies	SBIO011			No	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Elementary Statistical Methods	STAB012			No	12	0.100
General Chemistry 1B	SCHM012			No	12	0.100
Health Education and Life Competencies II	SHEL012			No	12	0.100
Introduction to the Physical Environment	SGEP012			No	12	0.100
Plant Biology	SBOT012			No	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>120</b>	<b>1,000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Economics: Microeconomics	SAGB021	None		No	16	0.129
Chemistry for Soil Science	SCHC021	SCHM011		No	16	0.129
		SCHM012				
Introduction to Animal Science	SANB021	None		No	12	0.097

Introduction to Plant Production	SPPB021	SBOT012		No	12	0.097
Introduction to Soil Science	SSCB021	SCHE011		Yes	12	0.096
		SCHE012				
		SGEP012				
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>68</b>	<b>0.548</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Agricultural Geology	SGIB022	None		No	8	0.065
Basic and Intermediate Farm Management	SAGD022	None		No	12	0.097
Introduction to Agricultural Mechanization	SPPC022	SSTA011		No	12	0.097
		SGEP012				
Introduction to Rural Sociology	SAGX022	None		No	12	0.097
Soil Formation and Classification	SSCB022	SSCB021		Yes	12	0.097
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>56</b>	<b>0.452</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>124</b>	<b>1,000</b>
<b>YEAR LEVEL 3</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Field Identification of Soils	SSCC031	SSCB022		Yes	12	0.100
Introduction to Agricultural Extension	SAGX031	None		No	12	0.100
Plant Nutrition and Soil Fertility	SSCB031	SSCB021		Yes	12	0.100
Principles of Field Crop Production	SPPB031	SPPB021		No	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.400</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
Biometry	SPPE032	SSTA011		No	12	0.100
Cropping Systems, Organic and Nature Farming	SPPF032	SPPB031		No	16	0.133
Irrigation and Soil Water Balance	SSCC032	SSCC031		Yes	12	0.100
Soil Biology	SSCB032	SSCC031		Yes	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>52</b>	<b>0.433</b>
<b>YEAR</b>						

YEAR COMPULSORY MODULES						
Experiential Training ( Soil Science)	SEPA030	None		Yes	20	0.167
<b>Total Credits: YEAR</b>					<b>20</b>	<b>0.167</b>
<b>Total Credits: YEAR LEVEL 3</b>					<b>120</b>	<b>1,000</b>
YEAR LEVEL 4						
1 <sup>ST</sup> SEMESTER						
1 <sup>ST</sup> SEMESTER COMPULSORY MODULES						
Advanced Soil, Plant and Water Analysis	SSCA041	SSCC032		Yes	16	0.125
Cereal and Grain Legume Cultivation	SPPA041	SPPB031		No	16	0.125
Soil Survey and Land-Use Planning	SSCB041	SSCC031		Yes	16	0.125
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
2 <sup>ND</sup> SEMESTER						
2 <sup>ND</sup> SEMESTER COMPULSORY MODULES						
Remote Sensing and GIS in Land Use Planning	SSCB042	SSCB041		Yes	16	0.125
Soil Mineralogy and Soil Chemistry	SSCA042	SSCB022		Yes	16	0.125
Soil Physics	SSCC042	SSCC031		Yes	16	0.125
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>48</b>	<b>0.375</b>
YEAR						
YEAR COMPULSORY MODULES						
Research Project (Soil Science)	SSCR040	None		Yes	32	0.250
<b>Total Credits: YEAR</b>					<b>32</b>	<b>0.250</b>
<b>Total Credits: YEAR LEVEL 4</b>					<b>128</b>	<b>1.000</b>
<b>Total Credits: Bachelor of Science in Agriculture in Soil Science</b>					<b>492</b>	<b>4.000</b>

## Department of Water and Sanitation

### Bachelor of Science in Water and Sanitation Sciences-BSS02

Module Name	Code	Pre-requisite	Co-requisite	Possible Major	Credits	
					SAQA	HEMIS
<b>YEAR LEVEL 1</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
General Chemistry 1A	SCHM011	None		Yes	12	0.100
Differential and Integral Calculus	SMTH011	None		Yes	12	0.100
Health Education and Life Competencies I	SHEL011	None		Yes	12	0.100
Introduction to Biological Sciences	SPLN011	None		Yes	12	0.100
General Physics 1A	SPHS011	None		Yes	12	0.100
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
<b>2<sup>ND</sup> SEMESTER COMPULSORY MODULES</b>						
General Chemistry 1B	SCHM012	None		Yes	12	0.100
Health Education and Life Competencies IB	SHEL012	None		Yes	12	0.100
Elementary, Linear and Introductory	SMTH012	None		Yes	12	0.100
General Physics 1B	SPHS012	None		Yes	12	0.100
Hydrology	SWTA012	None		Yes	12	0.100
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>60</b>	<b>0.500</b>
<b>Total Credits: YEAR LEVEL 1</b>					<b>120</b>	<b>1,000</b>
<b>YEAR LEVEL 2</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
<b>1<sup>ST</sup> SEMESTER COMPULSORY MODULES</b>						
Organic Chemistry 2	SCHA021	SCHM011		Yes	10	0.079
Inorganic Chemistry 2	SCHB021	SCHM011		Yes	10	0.079

Fundamental Microbiology	SMIA021	SBIO011 SCHM011 SCHM012 SCHE011 SCHE012		Yes	20	0.159
Water Quality Modelling	SWTA021			Yes	12	0.095
Water Resources Management	SWTB021	SWTA012			6	0.065
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>64</b>	<b>0.477</b>
<b>YEAR LEVEL 2</b>						
<b>2<sup>ND</sup> SEMESTER</b>						
Analytical Chemistry 2	SCHA022	SCHM011 & SMAT011		Yes	10	0.079
Environmental and Fungal Microbiology	SMIB022	None		Yes	20	0.159
Sanitation Systems	SWTA022	None		Yes	12	0.095
Water treatment processes and Technology	SWTB022	None		Yes	12	0.095
Hydraulics	SWTC022	SMTH011 SMTH012 SPHS011 SPHS012			12	0.095
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>64</b>	<b>0.523</b>
<b>Total Credits: YEAR LEVEL 2</b>					<b>128</b>	<b>1.000</b>
<b>YEAR LEVEL 3</b>						
<b>1<sup>ST</sup> SEMESTER</b>						
Water Microbiology	SWTA031	SMIA021 SMIB022		Yes	16	0.133
Water Quality A	SWTB031	SWTA021 SMIA021 SCHB021 SCHA022		Yes	20	0.167
<b>Choose 01 of the following ELECTIVES</b>						
Water Treatment Processes and Technology A	SWTC031	SWTB022		Yes	24	0.200
Sanitation A	SWTD031	SWTA022		Yes	24	0.200
Integrated Water Resource Planning A	SWTE031	SWTB021			24	0.200
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>64</b>	<b>0.500</b>
<b>2<sup>ND</sup> SEMESTER</b>						
Water Quality B	SWTA032	SWTB031		Yes	16	0.133
Water Chemistry	SWTB032	SCHA022 SCHA021 SCHB021		Yes	20	0.167
<b>Choose 01 of the following ELECTIVES</b>						

Water Treatment Processes and Technology B	SWTD032	SWTC031		Yes	24	0.200
<del>Sanitation B</del>	<del>SWTE032</del>	<del>SWTD031</del>		Yes	24	0.200
Integrated Water Resource Planning B	SWTF032	SWTE031			24	0.200
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>64</b>	<b>0.500</b>
<b>YEAR LEVEL 4</b>						
<b>4<sup>TH</sup> YEAR COMPULSORY MODULES</b>						
Research Methodology and Project	SWTA040	None			40	0.312
<b>Total Credits: YEAR</b>					<b>40</b>	<b>0.312</b>
<b>1<sup>ST</sup> SEMESTER</b>						
Advanced Water Quality A	SWTA041	SWTB031 SWTA032			20	0.156
Water Policy	SWTB041	None			08	0.062
<b>1<sup>ST</sup> SEMESTER ELECTIVE MODULES</b>						
Advanced Water Treatment Processes and Technology A	SWTC041	SWTC031 SWTD032			20	0.156
<del>Advanced Sanitation A</del>	<del>SWTD041</del>	<del>SWTD031 SWTE032</del>			20	0.156
<del>Advanced Integrated Water Resource Planning A</del>	<del>SWTE041</del>	<del>SWTE031 SWTF032</del>			20	0.156
<b>Total Credits: 1<sup>ST</sup> SEMESTER</b>					<b>48</b>	<b>0.374</b>
<b>2<sup>ND</sup> SEMESTER</b>						
Advanced Water Quality B	SWTA042	SWTA041			20	0.157
<b>Choose <u>01</u> of the following ELECTIVES</b>						
Advanced Water Treatment Processes and Technology B	SWTB042	SWTC041			20	0.157
<del>Advanced Sanitation B</del>	<del>SWTC042</del>	<del>SWTD041</del>			20	0.157
<del>Advanced Integrated Water Resource Planning B</del>	<del>SWTD042</del>	<del>SWTE041</del>			20	0.157
<b>Total Credits: 2<sup>ND</sup> SEMESTER</b>					<b>40</b>	<b>0.314</b>
<b>Total Credits: YEAR LEVEL 4</b>					<b>128</b>	<b>1.000</b>
<b>Total Credits: Bachelor of Water and Sanitation Sciences</b>					<b>494</b>	<b>4.000</b>