BSc (Hons) Agricultural Science and Technology (Full-time) – A334
(Optional Minor: Animal Production and Health/Agribusiness Management)

1. Objectives

The changing socio-economic pattern of Mauritius has led to an increasing demand for agricultural produce of good quality. Agricultural production is now increasingly being characterized by the use of modern technology. It is the Government policy and vision for the future to adopt a technology-based approach to render the local agricultural sector more productive, service-oriented, sustainable and competitive whilst responding to the environmental and ethical standards demanded by society.

The further development of agriculture and its related industries is challenging and requires appropriate knowledge, skills and technology concepts to keep pace with the latest technological developments in that sector. This has led to the need for well-trained agricultural scientists who have the technical and practical skills in addition to in-depth knowledge of the science to meet these new challenges facing the Mauritian agriculture and to those interested in embarking on postgraduate studies.

This programme offers students the option of taking **one** of two minors, namely:

(i) **Minor - Animal Production and Health**: to provide students with further insights in the principles of production and health management of cattle, sheep, pigs, poultry and deer for the production of quality and safe animal source foods (ASF).

(ii) **Minor - Agribusiness Management**: to provide students with further insights in the characteristics of different types of business organisations, the support environment in which agribusinesses evolve as well as their marketing strategies.

The programme offers students the opportunity to undertake a 6-month Internship at the end of the third year, in organisations relevant to the field of study. The Internship aims at (1) developing technical and practical skills of students in the area of agricultural and food production and (2) familiarizing students with skills that will enable them to contribute to the professionalization of the agri-food value chains in Mauritius. The module 'Professional Development' will support the student's development of personal and professional behaviour appropriate to a professional Internship.

The programme is structured towards the acquisition of scientific and technical knowledge and knowhow in agricultural science and production. In addition, students are exposed with the knowledge and application of concepts, tools and techniques in the management of small and medium agribusinesses. They also gain exposure to critical entrepreneurial principles through theory development, application and skill development; and they are made aware of the importance of creativity and innovation in the setting up of agribusinesses.

By the end of this programme, graduates will have developed knowledge, abilities and skills to:

- Explain the scientific, economic, environmental and business principles underpinning agricultural productivity and production;
- Identify and evaluate appropriate agricultural techniques in the crop and animal sectors to enhance efficiency of production and secure long-term food security;
- Identify and solve technological problems encountered in current crop and livestock production systems;
- Evaluate the wider consequences of agricultural activities and promote sustainable agricultural practices;
- Transfer relevant knowledge, skills and technology concepts to the producers and to support innovation;
- Design, plan and carry out research in the various fields of agriculture;
- Manage agricultural enterprises and identify new ventures in the agricultural sector;
- Use appropriate scientific and statistical methods and evaluations for decision making in various sectors of agriculture;
- Demonstrate use of written and oral communication skills;
- Embark on training programmes at postgraduate level.

2. General Entry Requirements

In accordance with General Entry Requirements for Admission to the University for Undergraduate Degrees.

3. Programme Requirements

SC: Credit in Mathematics and Chemistry.

- At least 2 GCE 'A' Level passes in related approved Science subjects (Mathematics, Physics, Chemistry, Biology, Food Studies, Botany, Zoology, Environmental Studies, and other allied science subjects).

4. Programme Duration

	Normal (Years)	**Maximum (Years)**
Degree:	3 ½	5 ½

5. Credits per Year: Minimum 18 credits**,** Maximum 48 credits subject to Regulation 4.

6. Minimum Credits Required for Award of Undergraduate Degree: <u>109 credits</u>

Breakdown as follows:

Degree	**Credits from**			
	Taught Modules		**Project**	**Internship**
		Optional Minor		
	63	31	9	6

Students may exit with :

- Certificate after having earned 30 credits in core modules.
- Diploma after having earned 60 credits in core modules.

7. Assessment

Each module will be assessed over 100 marks (i.e. expressed as %) with details as follows (unless otherwise specified).

Assessment will be based on a Written Examination of 2-3 hour duration, carrying a weighting of 70%, and Continuous Assessment carrying 30% of total marks for AGRI modules. Continuous Assessment will be based on laboratory/field works, and/or assignments, and should include <u>at least 1 class test</u>. Written examinations for all AGRI modules will normally be carried out at the end of the academic year. Semester examinations will be carried out for modules indicated in the programme structure.

An overall total of 40% for combined Continuous Assessment and Written Examination would be required to pass a module, without minimum thresholds within the individual Continuous Assessment and Written Examination.

All students should keep a portfolio of all coursework for their respective programme of studies and same should be made available upon request, to the Faculty Examination Office. In case students fail to submit the Portfolio to the External Examiners through the Faculty Examination Office, a penalty of 10% on all Continuous Assessment marks obtained shall apply.

Modules will carry the weightings of 1, 3 or 5 depending on their status (Introductory, Intermediate or Advanced). Weighting for a particular module is indicated within parentheses in the module code. Each module will carry credits in the range of 1 to 6. Project – AGRI 3000Y(5) will carry 9 credits. Assessment of the Internship – AGRI 3200(5) will be based on the Evaluation of the Industrial/Enterprise Mentor and the Student's Portfolio, and module will carry 6 credits. Assessment of the following modules will be based on continuous assessment of students throughout the module and/or submission of a portfolio: Professional Development – AGRI 3117(5) (no credits; for satisfactory completion of the module, a minimum of 40% should be achieved); Scientific Communication and IT for Agriculture - AGRI 2266(3) (2 credits).

Submission Deadlines for Dissertation

- First Draft: by last week day of February of the Academic Year.
- Final Copy: three copies of the dissertation (2 spiral-bound copies and 1 soft copy in a single PDF text file on electronic storage media) should be submitted to the Faculty Registry and **in addition, a soft copy of the dissertation in a single PDF text file should be uploaded on the "*'Turnitin' Platform*", in the final assignment submission link indicated by the Programme/Project Coordinator.** All of the above should be submitted not later than the last week day of March of the academic year by 4.00 p.m. at latest.
- **Failure to submit the Project/Dissertation through the Turnitin Platform will deem to be unreceivable**.

8. List of Modules

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 1018Y(1)	Agricultural Chemistry and Soil Science	45+60	5
AGRI 1034Y(1)	Animal Production: Principles and Techniques S2	30+30	3
AGRI 1035Y(1)	Agronomy and Horticultural Crop Production I	45+60	5
AGRI 1135Y(1)	Agricultural and Food Economics and Management S1	45+0	3
AGRI 1047Y(1)	Microbiology and Genetics	60+60	6
AGRI 1064Y(1)	Agrometeorology and Climate Change S2	45+0	3
AGRI 1071Y(1)	Data Handling and Research Methodology S1	30+30	3
AGRI 1073Y(1)	Botany and Plant Physiology	60+45	5
AGRI 2088Y(3)	Biochemistry and Biotechnology	60+60	6
AGRI 2089Y(3)	Pests, Diseases and Weeds Control	45+60	5
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques S1	30+30	3
AGRI 2156Y(3)	Agricultural Engineering Principles	60+45	5
AGRI 2118Y(3)	Science and Technology of Foods	45+30	4
AGRI 2266(3)	Scientific Communication and IT for Agriculture S2	30+0	2
AGRI 3000Y(5)	Project	-	9
AGRI 3026Y(5)	Crop Production Technologies	60+45	5
		Sub-total	**72**
Optional Minor: Animal Production and Health			
AGRI 2186Y(3)	Applied Animal Science	60+45	5
AGRI 2187Y(3)	Animal Nutrition	60+45	5
AGRI 2158Y(3)	Agricultural Management and Extension S1	45+0	3
AGRI 3165Y(5)	Sustainable Animal Husbandry Practices	60+30	5
AGRI 3166Y(5)	Animal Welfare and Health Management	60+30	5
AGRI 3167Y(5)	Applied Animal Genetics and Breeding	60+30	5
AGRI 3172Y(5)	Animal Product Processing and Food Safety S2	45+0	3
		Sub-total	**31**
Optional Minor: Agribusiness Management			
AGRI 2131Y(3)	Management Tools and Techniques for Small and Medium Agribusiness	30+30	3
AGRI 2132Y(3)	Financial Management for Agribusiness S2	30+30	3
AGRI 2092Y(3)	Animal Production and Science I	60+60	6
AGRI 3143Y(5)	Entrepreneurship and Innovations in Agribusiness	60+30	5
AGRI 3144(5)	Strategic management for Agribusiness	60+30	5
AGRI 3116Y(5)	Sustainable Agrifood Value Chain Development	60+0	4
AGRI 3027Y(5)	Animal Production and Health	60+45	5
		Sub-total	**31**
PROFESSIONAL DEVELOPMENT			
AGRI 3117(5)	Professional Development	15	0
INTERNSHIP			
AGRI 3200(5)	Internship	6 months	6

Total Number of Credits = 109

9. Programme Plan: BSc (Hons) Agricultural Science and Technology (Optional Minor: Animal Production and Health/Agribusiness Management) (with 6-month Internship)

YEAR 1

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 1018Y(1)	Agricultural Chemistry and Soil Science	45+60	5
AGRI 1034Y(1)	Animal Production: Principles and Techniques S2	30+30	3
AGRI 1035Y(1)	Agronomy and Horticultural Crop Production I	45+60	5
AGRI 1135Y(1)	Agricultural and Food Economics and Management S1	45+0	3
AGRI 1047Y(1)	Microbiology and Genetics	60+60	6
AGRI 1064Y(1)	Agrometeorology and Climate Change S2	45+0	3
AGRI 1071Y(1)	Data Handling and Research Methodology S1	30+30	3
AGRI 1073Y(1)	Botany and Plant Physiology	60+45	5

YEAR 2

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 2088Y(3)	Biochemistry and Biotechnology	60+60	6
AGRI 2089Y(3)	Pests, Diseases and Weeds Control	45+60	5
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques S1	30+30	3
AGRI 2156Y(3)	Agricultural Engineering Principles	60+45	5
AGRI 2118Y(3)	Science and Technology of Foods	45+30	4
AGRI 2266(3)	Scientific Communication and IT for Agriculture S2	30+0	2

Optional Minor: Animal Production and Health			
Code	**Module Name**	**Hr / Yr**	**Credits**
AGRI 2186Y(3)	Applied Animal Science	60+45	5
AGRI 2187Y(3)	Animal Nutrition	60+45	5
AGRI 2158Y(3)	Agricultural Management and Extension S1	45+0	3

Optional Minor: Agribusiness Management			
AGRI 2131Y(3)	Management Tools and Techniques for Small and Medium Agribusiness	30+30	3
AGRI 2132Y(3)	Financial Management for Agribusiness S2	30+30	3
AGRI 2092Y(3)	Animal Production and Science I	60+60	6

AGRI 2266(3) - Scientific Communication and IT for Agriculture will be done in Semester 2 in Year 2

YEAR 3

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 3000Y(5)	Project	-	9
AGRI 3026Y(5)	Crop Production Technologies	60+45	5

Optional Minor: Animal Production and Health			
Code	**Module Name**	**Hr/Yr**	**Credits**
AGRI 3165Y(5)	Sustainable Animal Husbandry Practices	60+30	5
AGRI 3166Y(5)	Animal Welfare and Health Management	60+30	5
AGRI 3167Y(5)	Applied Animal Genetics and Breeding	60+30	5
AGRI 3172Y(5)	Animal Product Processing and Food Safety S2	45+0	3

Optional Minor: Agribusiness Management			
Code	**Module Name**	**Hr/Yr**	**Credits**
AGRI 3143Y(5)	Entrepreneurship and Innovations in Agribusiness	60+30	5
AGRI 3144Y(5)	Strategic management of Agribusiness	60+30	5
AGRI 3116Y(5)	Sustainable Agrifood Value Chain Development	60+0	4
AGRI 3027Y(5)	Animal Production and Health	60+45	5

YEAR 4

Internship			
Code	**Module Name**		**Credits**
AGRI 3200(5)	Internship	6 months	6
AGRI 3117(5)	Professional Development	15 hr	-

AGRI 3117(5) - Professional Development will be included in the 6 months internship

Total Number of Credits = 109

- BSc (Hons) Agricultural Science and Technology (Minor: Animal Production and Health) = 109
- BSc (Hons) Agricultural Science and Technology (Minor: Agribusiness Management) = 109