BSc (Hons) Agricultural Science and Technology – A312/15

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 characterised 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.

The growth linkages in agriculture (upstream to suppliers of inputs, equipment and services, and downstream in processing, marketing and consumption) are greater than in other sectors. This programme aims at connecting science with needs and opportunities in agriculture to equip students with a broad spectrum of scientific, technical and managerial skills needed to contribute to the future success of agriculture in Mauritius and elsewhere.The programme aims at training the students in securing long-term food security to reduce imports and sustain the transformation of agricultural production systems.

The programme offers the opportunity of a 6-month work placement with the objective of preparing graduating students with the knowledge, skills and abilities, inter alia, to interact with producers in the agricultural and food sector, to become entrepreneurs, to develop and manage agribusiness, to work as research scientists. The placement aims at equipping the graduating student with the ability to

(i) develop from dependence to independence in learning
(ii) think creatively
(iii) develop an analytical approach to problem-solving
(iv) promote interpersonal skills (teamwork and communication).

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 programme at postgraduate level.

2. General Entry Requirements

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

3. Programme Requirements

Cambridge School Certificate/ 'O' Level: Credit in Mathematics and Chemistry and at least 2 GCE 'A' Level passes in related approved Science subjects (Mathematics, Chemistry, Physics, Biology, Food Studies, Botany, Zoology, Computer Science, Computing, Agriculture or any other related field).

4. Programme Duration

	Normal (Years)	Maximum (Years)
Degree:	3½	5½

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

6. Minimum Credits Required for Award of the Degree: 112

The breakdown is as follows:

	Credits from		
	Taught Core Modules	**Project**	**Work Placement**
Degree	97	9	6

Students may exit with a,

- 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. Modules from other Faculties/Departments/Centres will carry weighting in the Written Examination and the Continuous Assessment as specified by the concerned Faculties/Departments/Centres. Continuous Assessment will be based on laboratory/field reports, and/or oral and written presentations, and should include at least 1 class test. Written examinations for all AGRI modules will normally be carried out at the end of the academic year.

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.

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 3 to 6. Project will carry 9 credits.

Assessment of the "Scientific Communication Skills and Methods" and "Occupational Safety and Health" modules will be based on continuous assessment of students throughout the module and/or submission of a portfolio and a minimum of 40% should be attained.

Assessment of the "Emerging Issues in Agricultural Production" module will be based on continuous assessment of students (e.g. group presentation on case-studies) and written examination each carrying a weighting of 50%.

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	30+30	3
AGRI 1035Y(1)	Agronomy and Horticultural Crop Production I	45+60	5
AGRI 1047Y(1)	Microbiology and Genetics	60+60	6
AGRI 1064Y(1)	Agrometeorology and Climate Change	45+0	3
AGRI 1071Y(1)	Data Handling and Research Methodology	30+30	3
AGRI 1078Y(1)	Economics for Agricultural Managers	45+0	3
COMS 1010(1)	Communication Skills	DE	3
AGRI 1100 (1)	Occupational Safety and Health	15+0	1
AGRI 2156Y(3)	Agricultural Engineering Principles	60+45	5
AGRI 2088Y(3)	Biochemistry and Biotechnology	60+60	6
AGRI 2089Y(3)	Pests, Diseases and Weeds Control	45+60	5
AGRI 2092Y(3)	Animal Production and Science I	60+60	6
AGRI 2093Y(3)	Botany and Crop Physiology	60+45	5
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30+30	3
AGRI 2118Y(3)	Science and Technology of Foods	45+30	4
AGRI 2130 (1)	Scientific Communication Skills and Methods	15+0	1
AGRI 2257Y(3)	Agricultural Management, Marketing and Extension	45+0	3
AGRI 3000Y(5)	Project	-	9
AGRI 3003Y(5)	Animal Science and Production II	60+60	6
AGRI 3026Y(5)	Crop Production Technologies	60+45	5
AGRI 3051Y(5)	Postharvest Management and Agricultural Produce Processing	60+30	5
AGRI 3086Y(5)	Entrepreneurship for Small and Medium Agribusiness	45+30	4
AGRI 3132Y(5)	Agrifood Value Chain Analysis	60+0	4
AGRI 3114Y (5)	Emerging Issues in Agricultural Production	45+0	3
WORK PLACEMENT			
Code	**Module Name**	**Wk/Yr**	**Credits**
AGRI 2103(5)	Work Placement	24	6
Total Number of Credits = 112			

10. Programme Plan – BSc (Hons) Agricultural Science and Technology

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	30+30	3
AGRI 1035Y(1)	Agronomy and Horticultural Crop Production I	45+60	5
AGRI 1047Y(1)	Microbiology and Genetics	60+60	6
AGRI 1064Y(1)	Agrometeorology and Climate Change	45+0	3
AGRI 1071Y(1)	Data Handling and Research Methodology	30+30	3
AGRI 1078Y(1)	Economics for Agricultural Managers	45+0	3
COMS 1010(1)*	Communication Skills	DE	3
AGRI 1100 (1)	Occupational Safety and Health	15+0	1

*** To be taken in Semester 2**

YEAR 2

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 2156Y(3)	Agricultural Engineering Principles	60+45	5
AGRI 2088Y(3)	Biochemistry and Biotechnology	60+60	6
AGRI 2089Y(3)	Pests, Diseases and Weeds Control	45+60	5
AGRI 2092Y(3)	Animal Production and Science I	60+60	6
AGRI 2093Y(3)	Botany and Crop Physiology	60+45	5
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30+30	3
AGRI 2118Y(3)	Science and Technology of Foods	45+30	4
AGRI 2257Y(3)	Agricultural Management, Marketing and Extension	45+0	3
AGRI 2130 (1)	Scientific Communication Skills and Methods	15+0	1

Code	Module Name	Wk/Yr	Credits
AGRI 2103(5)	Work Placement	24	6

YEAR 3

Code	Module Name	Hr / Yr L+P	Credits
AGRI 3000Y(5)	Project	-	9
AGRI 3003Y(5)	Animal Science and Production II	60+60	6
AGRI 3026Y(5)	Crop Production Technologies	60+45	5
AGRI 3051Y(5)	Postharvest Management and Agricultural Produce Processing	60+30	5
AGRI 3086Y(5)	Entrepreneurship for Small and Medium Agribusiness	45+30	4
AGRI 3132Y(5)	Agrifood Value Chain Analysis	60+0	4
AGRI 3114Y(5)	Emerging Issues in Agricultural Production	45+0	3

Total number of credits = 112