

1. CONTEXT AND OBJECTIVES

Context

The changing socio-economic pattern of Mauritius has led to an increasing demand for agricultural produce of good quality. We have to increase production to keep pace with the consumer ever increasing demand for food and at the same time produce quality and safe foods and to be food secure. 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, resource-efficient, service-oriented, sustainable and competitive without compromising the environmental and ethical standards demanded by society. The further development of agriculture and its related industries is therefore challenging and requires appropriate knowledge, skills and competences to keep pace with the latest technological developments in that sector. 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.

Objectives of programme

This programme has been mounted with the twin objectives of developing both the generic and subject specific skills of students. It will help to equip them with the broadest range of technical and practical skills in agricultural science and production to meet the new challenges facing our local and global agriculture.

The programme offers the opportunity of a 6-month work placement at the end of the third year, in organizations relevant to their field of study, 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 and to work as research scientists. The placement aims at equipping the graduating students with the ability to develop from dependence to independence in learning,

- (ii) think creatively,
- (iii) develop an analytical approach to problem-solving, and
- (iv) promote interpersonal skills (teamwork and communication).

Career Opportunities

After completing this degree, learners will be able to pursue careers in both the public and private sector organisations related to agricultural and food production. There are opportunities in advisory and management roles in agricultural extension, banking, journalism, consultancy firms, animal feed and fertiliser manufacturers. This programme of study also prepares the students for further training (e.g. postgraduate studies, training workshops) in agriculture related disciplines.

2. LEARNING OUTCOMES

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

- Demonstrate knowledge of the scientific, economic, environmental and business principles underpinning agricultural production;
- Conduct an investigation and solve real world scientific problems in an agricultural farm;
- Identify and evaluate appropriate agricultural techniques in the crop and animal sectors to improve production and food security;
- Demonstrate specialized technical, field and laboratory skills in the various disciplines of agriculture;
- Design, plan and carry out a research based project 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 skills in written and oral scientific communication skills;
- Demonstrate high standards of ethical conduct and social responsibility in the delivery of their tasks;
- Develop team working skills to work collaboratively in practical work, research work;
- Evaluate the wider consequences of agricultural activities and promote sustainable agricultural practices; and
- Transfer relevant knowledge, skills and technology concepts to the producers and to support Innovation.

3. TEACHING AND LEARNING METHODS

Modules shall be taught over 10 weeks and shall include 3 hours of contact per week, involve 6 hours of self-study per week and 9 hours of other learning activities per week for each semester. The 30 hours of contact shall include class hours, tutorials and practicals.

This programme is taught through lectures, tutorials, online activities, laboratory and farm practical classes, farm visits and student-led seminars. It will also include self-study learning (e.g., directed learning, student group work, preparation of reports, case studies) and other learning activities (e.g., self-independent learning individual reading, use of the library, online learning, preparing for exams).

4. ENTRY REQUIREMENTS

• General Requirements

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

• Programme Requirements

SC: Credit in Mathematics and Chemistry/Biology.

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

As per UoM Entry Requirements or any alternate qualifications acceptable to the University Senate.

5. PROGRAMME DURATION

	Normal (Years)	Maximum (Years)
Degree	3.5	5.5

6. LCCS CREDITS TO BE EARNED:-

Minimum and Maximum number of LCCS Credits per year:

Minimum 12 LCCS Credits per year subject to Section 3.4 of the UoM Regulations

Maximum 96 LCCS Credits per year subject to Section 3.4 of the UoM Regulations

Total Number of LCCS Credits required to earn the award is 224.

Exit Points

The student can exit the programme with a Diploma or Certificate, as follows:

	LCCS Credits
Diploma in Agricultural Science and Technology	120
Certificate in Agricultural Science and Technology	60

7. ASSESSMENT AND DEADLINES

The achievement of the modules learning outcomes will be assessed through a variety of methods (e.g., exams, class tests, reports, field visits). 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 - 2½ hours duration, carrying a weighting of 60 %, and Continuous Assessment carrying 40% of total marks. Continuous Assessment will be based on Class/Laboratory/Field Visits/Case Studies, and /or Assignments, and should include at least 1 Class Test per module. The module (AGRI 3111Y(5) – ‘Agribusiness Enterprise and Development’) will be assessed as follows: 50% exams and 50% continuous assessment (presentation of business plan in front of a panel consisting of a local entrepreneur and a representative of a commercial bank or relevant institution).

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

Modules will carry LCCS Credits in the range of 4 to 12, except for the dissertation which carries 18 LCCS Credits.

The internship of six-month duration will be undertaken at the end of Year 3 after the Yearly Examinations.

A final year dissertation (8,000 – 12,000 words) should be submitted to the Faculty Registry as per the deadline stated in the latest Regulations for Undergraduate Programmes.

8 LIST OF MODULES

Code	Module Name	Contact Hours (L*/T*/P*)	Self-Study Hours	Other Learning Hours	LCCS Credits
AGRI 1018Y(1)	Agricultural Chemistry and Soil Science	50	100	150	10
AGRI 1034Y(1)	Animal Production: Principles and Techniques	30	60	90	6
AGRI 1064Y(1)	Agrometeorology and Climate Change	30	60	90	6
AGRI 1071Y(1)	Data Handling and Research Methodology	30	60	90	6
AGRI 1096Y(1)	Agronomy and Sustainable Horticulture	50	100	150	10
AGRI 1098 Y(1)	Economics of the Agrifood Sector	50	100	150	10
AGRI 10101Y(1)	Microbiology	30	60	90	6
AGRI 10105Y(1)	Principles of Genetics	30	60	90	6
AGRI 1153(1)	Effective Scientific Communication: Principles and Practice I	20	40	60	4
AGRI 2088Y(3)	Biochemistry and Biotechnology	60	120	180	12
AGRI 2092Y(3)	Animal Production and Science I	60	120	180	12
AGRI 2093Y(3)	Botany and Plant Physiology	50	100	150	10
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30	60	90	6
AGRI 2179 Y(3)	Food Science, Safety and Sustainability	40	80	120	8
AGRI 2198 Y(3)	Principles and Applications of Agricultural Engineering	50	100	150	10
AGRI 2199 Y(3)	Agroindustrial Development and Perspectives	40	80	120	8
AGRI 20113 Y(3)	Plant Pests, Diseases and Weeds	40	80	120	8
AGRI 2279(1)	Effective Scientific Communication: Principles and Practice II	10	20	30	2
AGRI 3000Y(5)	Project				18
AGRI 3003Y(5)	Animal Production and Science II	60	120	180	12
AGRI 3051Y(5)	Postharvest Management and Agricultural Produce Processing	50	100	150	10
AGRI 3111 Y(5)	Agribusiness Enterprise Development	40	80	120	8
AGRI 3132Y(5)	Agrifood Value Chain Analysis	40	80	120	8
AGRI 3179 Y(5)	Emerging Crop Production Technologies	50	100	150	10
AGRI 4100(5)	Internship				18
AGRI 4101(5)	Professional Development	15			
TOTAL		955	1880	2820	224

Note: Contact Hours= Lectures, T* = Tutorials, P* = Practicals

#The Practical Training of six-month duration will be undertaken at the end of Year 3 after the Yearly Examinations

9. PROGRAMME PLAN

YEAR 1

Code	Module Name	L/T/P (Contact Hours)	LCCS credits
AGRI 1018Y(1)	Agricultural Chemistry and Soil Science	50	10
AGRI 1034Y(1)	Animal Production: Principles and Techniques	30	6
AGRI 1064Y(1)	Agrometeorology and Climate Change	30	6
AGRI 1071Y(1)	Data Handling and Research Methodology	30	6
AGRI 1096Y(1)	Agronomy and Sustainable Horticulture	50	10
AGRI 1098 Y(1)	Economics of the Agrifood Sector	50	10
AGRI 10101Y(1)	Microbiology	30	6
AGRI 10105Y(1)	Principles of Genetics	30	6
AGRI 1153(1)	*Effective Scientific Communication: Principles and Practice I	20	4
Sub Total		320	64

* Semester 1

YEAR 2

Code	Module Name	L/T/P (Contact Hours)	LCCS credits
AGRI 2088Y(3)	Biochemistry and Biotechnology	60	12
AGRI 2092Y(3)	Animal Production and Science 1	60	12
AGRI 2093Y(3)	Botany and Plant Physiology	50	10
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30	6
AGRI 2179 Y(3)	Food Science, Safety and Sustainability	40	8
AGRI 2198 Y(3)	Principles and Applications of Agricultural Engineering	50	10
AGRI 2199 Y(3)	Agroindustrial Development and Perspectives	40	8
AGRI 20113 Y(3)	Plant Pests, Diseases and Weeds	40	8
AGRI 2279(1)	*Effective Scientific Communication: Principles and Practice II	10	2
Sub Total		380	76

* Semester 1

YEAR 3

Code	Module Name	L*/T*/P* (Contact Hours)	LCCS credits
AGRI 3000Y(5)	Project		18
AGRI 3003Y(5)	Animal Production and Science II	60	12
AGRI 3051Y(5)	Postharvest Management and Agricultural Produce Processing	50	10
AGRI 3111 Y(5)	Agribusiness Enterprise Development	40	8
AGRI 3132Y(5)	Agrifood Value Chain Analysis	40	8
AGRI 3179 Y(5)	Emerging Crop Production Technologies	50	10
Sub Total		240	66

YEAR 4

Code	Module Name	L*/T*/P* (Contact Hours)	LCCS credits
AGRI 4100(5)	Internship		18
AGRI 4101(5)	Professional Development	15	
Sub Total		15	18
GRAND TOTAL		955	224

