BSc (Hons) Crop Technology (Minor: Landscape Management) - A330E (Full-Time)
(with 6-month internship)

1.   **Objectives**

The Crop sector plays a vital role in ensuring food security, creating wealth, alleviating poverty and ensuring rural livelihoods. Self-sufficiency in food production is being addressed so as to cater for the needs of the growing population. Appropriate agricultural innovations, technologies, knowledge and skills are of paramount importance in order to mitigate the impacts of climate change, to ensure the production of quality food products at competitive prices and to support development in the construction and tourist industries. Landscape design and management is increasingly being promulgated by the private sector in recent years. The Government of Mauritius is also actively encouraging the use of green, efficient and innovative eco-friendly technologies, such as green roofs and bio-farming, for sustainable agricultural development.

In line with the expansion of agro-tourism, development of the integrated resort schemes (IRS), luxury hotels/ villas/ residential complexes, golf-course estates and smart cities, the landscape industry is becoming one of the main avenues for wealth creation and economic diversification. Landscaping is primordial to tourism and infrastructural development in many facets; sustainable landscapes have the potential to enhance mental, physical and social wellbeing, and these attributes are overwhelmingly important to a high standard of living and quality of life. This programme therefore aims at incorporating the landscape elements in sustainable agricultural development, as well as in creating relaxed and restorative environments, with the application of efficient and innovative techniques of crop production technology.

The programme also offers students the opportunity to undertake a 6-month Internship at the end of the third year, in organizations relevant to the field of study. The Internship aims at (i) developing technical and practical skills of students in the area of crop production and landscape design and management and (ii) familiarizing students with skills that will enable them to contribute to the professionalization of crop agriculture in Mauritius. The module 'Professional Development' will support the student's development of personal and professional behaviour appropriate to a professional Internship.

On completion of this programme, learners will be able to:

- Explain the scientific, economic and business principles underpinning crop production and productivity;
- Identify technological and non-technological problems encountered in current crop production systems;
- Propose and evaluate appropriate production technologies in the crop sector to enhance production efficiency and to achieve food security
- Demonstrate the application of the principles of landscape design, in terms of unity, balance, scale, proportion, patterns and colours;
- Design gardens and parks and implement such plans using the aesthetic palette of plants;
- Explain the need for ecology, ecosystem services, genetic diversity in green spaces and how these influence sustainable landscapes;
- Restore existing landscapes, which have been badly designed and under-managed;
- Implement concepts of sustainability and landscape-industry best practices in hotels, integrated resort schemes (IRS), smart cities and other green spaces;
- Demonstrate an understanding of the latest technologies used in crop agriculture, including farm machinery, greenhouse hydroponics and tissue culture techniques;
- Set up, run and manage an agribusiness in landscaping;
- Transfer relevant knowledge, skills and technology concepts to the producers and to support innovations;
- Design, plan and carry out research in the various fields of crop agriculture;
- Use appropriate scientific and statistical methods and evaluations for decision making in the crop sector;
- Demonstrate use of written and oral communication skills; and
- Embark on professional training courses and/or programme of studies at postgraduate level.

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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 / Biology
- At least 2 GCE 'A' Level passes in related approved Science subjects (Mathematics, Physics, Chemistry, Biology, 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 6.

6. **Minimum Credits Required for the Award of Undergraduate Degree: <u>107 credits</u>**

Breakdown as follows:

Degree	Credits from		
	Taught Modules	**Project**	**Internship**
	Core		
	92	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. For module AGRI 1156Y(1) - IT Applications for Landscapers, assessment will be based on a Written Examination of 2-hour duration, carrying a weighting of 50%, and Continuous Assessment carrying 50% of total marks. 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.

Assessment of the Internship – AGRI 3200(1) 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 module AGRI 1153(1) - Effective Scientific Communication: Principles and Practice I will be based on the submission of a portfolio. For the part on WEB 2.0 tools, participation in all discussion forum on the MOODLE platform and demonstration of the use of the tools (e.g. creation of a blog) should be shown. Assessment of the module AGRI 2279(1) – Effective Scientific Communication: Principles and Practice II, will be based on the submission of a Portfolio.

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(1) (no credit; for satisfactory completion of the module, a minimum of 40% should be achieved); Landscape Drawing – AGRI 4001(1) (no credit; for satisfactory completion of the module, a minimum of 40% should be achieved). Assessment of the module WCS 2200(3) – Writing Case Studies, will be based on the write up and submission of a Case Study and Oral presentation.

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/Centre Examination Office. In case students fail to submit the Portfolio to the External Examiners through the Faculty/Centre 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. The modules: AGRI 1153(1) - Effective Scientific Communication: Principles and Practice I and AGRI 2279(1) – Effective Scientific Communication: Principles and Practice II, will carry 2 credits and 1 credit, respectively.

Submission Deadlines for Dissertation

- First Draft: by last week day of February of the Academic Year.
- Final Copy – not later than the last week day of March of the Academic Year:
- Three copies of the dissertation (two spiral-bound copies, printed on both sides in black and white and one soft copy in a single PDF text file on electronic storage media) should be submitted to the Faculty/Centre Registry.
- In addition a soft copy of the dissertation (main body i.e. Introduction up to the last Chapter) should be uploaded on the Turnitin Platform, as a single PDF file in the appropriate class/assignment provided by the Project Supervisor by **3.00 pm.** In case a student is allocated a part-time Supervisor, the class is to be created by the Programme/Project Coordinator.
- All the above should be submitted not later than the last working day (i.e. excluding Saturdays, Sundays and Public Holidays) of March of the academic year by **4.00 pm** at latest, unless specified otherwise in the Programme of studies.
- Failure to submit the Project/Dissertation through the Turnitin Platform will result in the dissertation of the student, whether the bound copy or the soft copy, being 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 10118Y(1)	Plant Sciences	45+60	5
AGRI 10119Y(1)	Sustainable Horticulture and Agronomy	45+60	5
AGRI 1071Y(1)	Data Handling and Research Methodology	30+30	3
AGRI 10120Y(1)	Introductory Biochemistry and Microbiology	45+45	4
AGRI 1081Y(1	Landscape Construction, Design and Management I	45+30	4
AGRI 10121Y(1)	IT Applications for Landscapers	30+45	3
AGRI 1135Y(1)	Agricultural and Food Economics and Management	45+0	3
AGRI 1153(1)	Effective Scientific Communication: Principles and Practice I	30+0	2
AGRI 2254Y(3)	Agricultural Engineering: Applications	60+45	5
AGRI 20120Y(3)	Crop Nutrition and Fruit Production	45+0	3
AGRI 20121Y(3)	Crop Propagation and Nursery Management	45+30	4
AGRI 20122Y(3)	Postharvest Science and Technology	45+30	4
AGRI 20123Y(3)	Genetics and Breeding of Crops and Ornamentals	60+30	5
AGRI 2089Y(3)	Pests, Diseases and Weeds Control	45+60	5
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30+30	3
AGRI 20124Y(3)	Ornamental Plant Production	30+30	3
AGRI 20125Y(3)	Landscape Ecology	45+0	3
AGRI 2279(1)	Effective Scientific Communication: Principles and Practice II	15+0	1
WCS 2200(3)	Writing Case Studies	9+36	3
AGRI 3000Y(5)	Project	-	9

Code	Module Name		Credits
AGRI 3026Y(5)	Crop Production Technologies	60+45	5
AGRI 30117Y(5)	Turfgrass Physiology, Production and Management	45+30	4
AGRI 3134Y(5)	Landscape Construction, Design and Management 2	60+30	5
AGRI 30118Y(5)	Entrepreneurship in the Landscape Industry	60+30	5
AGRI 4001(1)	*Landscape Drawing	15 hours	-
AGRI 4101(1)	**Professional Development	15 hours	-
AGRI 4100(1)	Internship	6 months	6

*AGRI 4001(1) – Landscape Drawing and **AGRI 4101(1) - Professional Development will be delivered before the students embark on the 6-month internship*

Total Number of Credits = <u>107 credits</u>

9. **Programme Plan**: **BSc (Hons) Crop Technology (Minor: Landscape 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 10118Y(1)	Plant Sciences	45+60	5
AGRI 10119Y(1)	Sustainable Horticulture and Agronomy	45+60	5
AGRI 1071Y(1)	Data Handling and Research Methodology	30+30	3
AGRI 10120Y(1)	Introductory Biochemistry and Microbiology	45+45	4
AGRI 1081Y(1)	Landscape Construction, Design and Management I	45+30	4
AGRI 10121Y(1)	IT Applications for Landscapers	30+45	3
AGRI 1135Y(1)	Agricultural and Food Economics and Management	45+0	3
AGRI 1153(1)	Effective Scientific Communication: Principles and Practice I	30+0	2
	Total	**360+330**	**34**

YEAR 2

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 2254Y(3)	Agricultural Engineering: Applications	60+45	5
AGRI 20120Y(3)	Crop Nutrition and Fruit Production	45+0	3
AGRI 20121Y(3)	Crop Propagation and Nursery Management	45+30	4
AGRI 20122Y(3)	Postharvest Science and Technology	45+30	4
AGRI 20123Y(3)	Genetics and Breeding of Crops and Ornamentals	60+30	5
AGRI 2089Y(3)	Pests, Diseases and Weeds Control	45+60	5
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30+30	3
AGRI 20124Y(3)	Ornamental Plant Production	30+30	3
AGRI 20125Y(3)	Landscape Ecology	45+0	3
AGRI 2279(1)	Effective Scientific Communication: Principles and Practice II	15+0	1
WCS 2200(3)	Writing Case Studies	9+36	3
	Total	**465+255**	**39**

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
AGRI 30117Y(5)	Turfgrass Physiology, Production and Management	45+30	4
AGRI 3134Y(5)	Landscape Construction, Design and Management 2	60+30	5
AGRI 30118Y(5)	Entrepreneurship in the Landscape Industry	60+30	5
	Total	**225+135**	**28**

YEAR 4

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 4001(1)	Landscape Drawing	15 +0	-
AGRI 4101(1)	Professional Development	15+0	-
AGRI 4100(1)	Internship	6 months	6
	Total		**6**