BSc (Hons) Food Science and Technology (Full time) (A400/15)

1. Objectives

The programme will provide knowledge and skills in subjects related to food science and technology so as to develop the necessary competence for a career in the food industry, conducting research and pursuing further studies.

The programme also offers students the opportunity of a 6-month work placement in a food-related institution to develop communications, real-life problem solving and team-working skills. The student will thus graduate with a firm foundation for the real world of work.

By the end of this programme graduates will have developed knowledge and skills to:
- Apply scientific principles to control the chemical, physical, microbiological, nutritional and sensory properties of food during manufacture and storage;
- Apply methods of preservation and processing to control deterioration and spoilage mechanisms in foods and to produce safe foods;
- Apply methods of food analysis to assess quality, nutritive value, safety and compliance with standards;
- Participate in the development, implementation and maintenance of comprehensive food safety management systems to protect consumer health;
- Contribute to the development and growth of small and medium food enterprises, and food industries;
- Identify, relate and apply the content of academic courses to specific work practices and make a worthwhile contribution in the workplace;
- Display people related skills - communications, interpersonal, and team working;
- Display conceptual skills - researching, collecting and organising information, problem solving, planning and organising, innovation and creativity, systems thinking and self-reliance;
- Apply the steps involved in a research process;
- 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

2 GCE 'A' Level passes in related approved Science subjects (Mathematics, Chemistry, Physics, Biology, Food Studies).

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 Undergraduate Degree: 105**

Breakdown as follows:

	Credits from		
	Core Taught Modules	**Project**	**Work Placement**
Degree	90	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 Faculties/Departments/Centres concerned. Continuous Assessment will be based on laboratory/field works, and/or assignments, and should include at least 1 class test.

An overall total of 40% for combined continuous assessment and written examination components would be required to pass the 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/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 module AGRI 2261(1) - Scientific Communication carries 1 credit. Assessment of the module AGRI 2261(1) - Scientific Communication will be based on continuous assessment of students throughout the module and/or submission of a portfolio. For satisfactory completion of the module, a minimum of 40% should be attained.

The module AGRI 1100(1) - Occupational Safety and Health carries 1 credit. Assessment of the module will be based on continuous assessment of students. For satisfactory completion of the module, a minimum of 40% should be attained in each.

Assessment of work placement will be by continuous assessment solely and will be based on employer's assessment report, submission of work placement report and a presentation thereon. A minimum of 50% should be attained to pass this module.

Assessment of the module AGRI 3069Y(5) - Food Product Development, which will carry 1 credit, will be based on group presentation and submission of group portfolio in the first week of the second semester of the final year.

Written examinations for all AGRI modules will be carried out at the end of the academic year.

Submission Deadlines for Dissertation:
- First Draft: by last week day of August 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/Centre 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 bythe last week day of September 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 1011Y(1)	Food Microbiology	60+60	6
AGRI 1012Y(1)	Biochemistry and Nutrition	75+30	6
AGRI 1014Y(1)	Food Chemistry and Food Analysis I	60+60	6
AGRI 1052Y(1)	Chemistry Fundamentals and Laboratory Techniques	30+60	4
AGRI 1010Y(1)	Basic Food Engineering	60+60	6
AGRI 1071Y(1)	Data Handling and Research Methodology	30+30	3
AGRI 1041Y(1)	Introduction to Agricultural Production	45+0	3
AGRI 1072Y(1)	Introduction to Management in Food Industries	30+30	3
AGRI 1100(1)	Occupational Safety and Health	15+0	1
AGRI 2018Y(3)	Unit Operations in Food Processing	30+30	3
AGRI 2019Y(3)	Molecular Biology	30+30	3
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30+30	3
AGRI 2015Y(3)	Food Chemistry and Food Analysis II	75+30	6
AGRI 2105Y(3)	Food Processing	75+30	6
AGRI 2113Y(3)	Food Economics and Marketing	30+30	3
AGRI 2114Y(3)	Food Hygiene and Safety	45+30	4
AGRI 2099Y(3)	Food Quality Management	45+30	4
AGRI 2020Y(3)	Sensory Analysis	30+30	3
AGRI 3000Y(5)	Project	_	9
AGRI 3014Y(5)	Food Legislation	45+0	3
AGRI 3017Y(5)	Developments in Food Science and Technology	45+0	3
AGRI 3021Y(5)	Instrumentation and Process Control in the Food Industries	45+0	3
AGRI 3070Y(5)	Water and Waste Management in Food Industries	45+0	3
AGRI 3088Y(5)	Postharvest Management	45+0	3
AGRI 3069Y(5)	Food Product Development	15+0	1
AGRI 2261(1)	Scientific Communication	15+0	1

WORK PLACEMENT

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

Total Number of Credits = 105

9.   Programme Plan – BSc (Hons) Food Science and Technology (with 6-month work placement)

YEAR 1

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 1011Y(1)	Food Microbiology	60+60	6
AGRI 1012Y(1)	Biochemistry and Nutrition	75+30	6
AGRI 1014Y(1)	Food Chemistry and Food Analysis I	60+60	6
AGRI 1052Y(1)	Chemistry Fundamentals and Laboratory Techniques	30+60	4
AGRI 1010Y(1)	Basic Food Engineering	60+60	6
AGRI 1071Y(1)	Data Handling and Research Methodology	30+30	3
AGRI 1041Y(1)	Introduction to Agricultural Production	45+0	3
AGRI 1072Y(1)	Introduction to Management in Food Industries	30+30	3
AGRI 1100(1)	Occupational Safety and Health	15+0	1

YEAR 2

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 2018Y(3)	Unit Operations in Food Processing	30+30	3
AGRI 2019Y(3)	Molecular Biology	30+30	3
AGRI 2112Y(3)	Experimental Designs and Sampling Techniques	30+30	3
AGRI 2015Y(3)	Food Chemistry and Food Analysis II	75+30	6
AGRI 2105Y(3)	Food Processing	75+30	6
AGRI 2113Y(3)	Food Economics and Marketing	30+30	3
AGRI 2114Y(3)	Food Hygiene and Safety	45+30	4
AGRI 2099Y(3)	Food Quality Management	45+30	4
AGRI 2020Y(3)	Sensory Analysis	30+30	3

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

YEAR 3

CORE MODULES

Code	Module Name	Hr / Yr L+P	Credits
AGRI 3000Y(5)	Project	_	9
AGRI 3014Y(5)	Food Legislation	45+0	3
AGRI 3017Y(5)	Developments in Food Science and Technology	45+0	3
AGRI 3021Y(5)	Instrumentation and Process Control in the Food Industries	45+0	3
AGRI 3070Y(5)	Water and Waste Management in Food Industries	45+0	3
AGRI 3088Y(5)	Postharvest Management	45+0	3
AGRI 3069Y(5)	Food Product Development	15+0	1
AGRI 2261(1)	Scientific Communication	15+0	1

Total Number of Credits = 105