Diploma in Food Safety & Food Innovation – A203/15

1. Objectives

Food safety and food product development are of paramount importance to businesses of any size which handle food. Food safety is of fundamental public health concern and has become an area of priority and necessity for manufacturers, distributors, wholesalers, retailers, consumers and regulators. Changing global patterns of food production, international trade, technology, consumer demands, public expectations for health protection and many other factors have created a huge demand for food safety and quality assurance. Food innovation is also of prime importance for the development and presentation of novel food products or product lines in a safe, nutritious and sustainable manner.

Through this course, learners will become familiar with the systems and procedures that contribute to a high quality, economically viable and dynamic food business. From adopting personal hygiene practices to adhering to national food standards, this Diploma course will ensure that the learner gains the basic knowledge necessary to manage a hygienic food production and/or service operation. Learners will also recognise the need for ingredients and products that are cost effective and efficient in a wide variety of settings (e.g. food production, retail, markets, catering establishments, etc). The programme also offers a broad and a more general range of skills and knowledge aimed at developing competencies in product development, process development and innovation in the agri-food sector. With its integrated approach to teaching and learning, the programme comprises of modules combining knowledge with technical and practical skills to emphasise the application of theory to practice to allow learners to transfer these skills to employment in the micro/SME/large food and beverage enterprises.

The programme is primarily designed for employees of small food enterprises and large food industries to enhance competencies in the development and production of quality, safe, nutritious, healthy and sustainable food to fulfill requirements. Hence, employees of any business in which food is involved will benefit at large through completion of this Diploma. Furthermore, this course offers enhanced prospect to the graduate of creating a start up enterprise or furthering study in a related field.

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

- Comprehend the issues of safety and quality in food production, handling, processing and trade
- Ensure the safety and quality of food products as per mandatory requirements and voluntary standards.
- Understand the challenges in new product development
- Identify technological problems encountered in development of novel or niche products
- Develop healthy and nutritious food.
- Demonstrate creativity and sustainability within the food value chain.
- Transfer relevant knowledge, skills and technology concepts to industry and support innovation
- Appreciate the factors necessary for successful penetration of new products on the market
- Undertake basic microbiological and chemical analyses of food products.
- Apply good hygienic, manufacturing, laboratory, transportation and retail practices in food processing/ hospitality industry and retail outlets
- Understand fundamentals of marketing of food products

2. General Entry Requirements

As per General Entry Requirements for admission to the University for Diplomas.

3. Programme Requirements

Cambridge School Certificate/ 'O' Level, which shows passes in English Language and in four other subjects, including Mathematics.

4. General and Programme Requirements – Special Cases

The following may be deemed to have satisfied the General and Programme requirements for admission:

- Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but submit satisfactory evidence of having passed examinations which are deemed by the Senate to be equivalent to any of those listed.
- Applicants who do not satisfy any of the requirements as per Regulations 2 and 3 above but who in the opinion of Senate, submit satisfactory evidence of the capacity and attainments requisite to enable them to pursue the programme proposed.
- Applicants who have greater than 5 years of work experience in the food sector.

5. Programme Duration

	Normal (Years)	**Maximum (Years)**
Diploma	3	5

6. Credits per Year: Minimum 18 credits; Maximum 48 credits, subject to Regulation 5.

7. Minimum Credits required for the Award of the Diploma: 61

Breakdown as follows:

	Credits from			
	Core Taught Modules	**Project**	**Electives**	**GEMs**
Diploma	55	6	-	-

Students may exit with a **Certificate** after having earned 30 credits in core modules.

8. Assessment

Each module will be assessed over 100 marks (i.e. expressed as %). Assessment will be based on a Written Examination, carrying a weighting of 70%, and Continuous Assessment carrying 30% of total marks except for the following module:

Module	Continuous Assessment	Written Examination
AGRI 3139Y(3) New Food Product Design, Development and Testing	50 % (15 % for class test and 35 % for group presentation and group portfolio)	50 % (2 hrs exam paper)

Continuous Assessment for all modules will be based on laboratory/field works, and/or assignments, and should include at least 1 class test.

Written examinations for all modules, whether taught in semester 1 or in semester 2 or both, will be carried out at the end of the academic year except for the following modules which will be assessed at the end of semester 1: AGRI 1101(1) Fundamentals of Chemistry and AGRI 1102(1) Fundamentals of Biology.

2 hrs written exam papers will be set for modules carrying 3 credits:

AGRI 1101(1)	Fundamentals of Chemistry
AGRI 1102(1)	Fundamentals of Biology
AGRI 1092Y(1)	Fundamentals of Nutrition
AGRI 2159Y(3)	Statistical & Research Methods
AGRI 2161Y(3)	Food Quality and Safety Management Systems
AGRI 2162Y(3)	Sensory Science
AGRI 2164Y(3)	Food Microbiology & Safety
AGRI 3126Y(3)	Novel Foods & Ingredients
AGRI 3127Y(3)	Food Control & Consumer Behaviour
AGRI 3128Y(3)	Recent Developments in Food Safety and Food Innovation

2.5 hrs written exam papers will be set for modules carrying 4 credits or more:

AGRI 1201(1)	Food Hygiene & Sanitation
AGRI 1202(1)	Chemistry & Analysis of Foods
AGRI 1093Y(1)	Basics of Food Production
AGRI 2160Y(3)	Food Preservation, Processing and Packaging
AGRI 2163Y(3)	Entrepreneurship & Food Marketing

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

Modules will carry credits in the range of 3 to 4. Project will carry 6 credits.

Assessment of the module AGRI 1100(1) – Occupational Safety and Health 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.

Submission Deadlines for Dissertation:

- First Draft: By last week day of February of the Academic Year
- Final Copy: Three copies of the dissertation (two spiral-bound copies and one 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 not later than the last week day of March of the academic year by 4.00 p.m. at latest.

9. List of Modules

Code	Module Name	Hr / Yr L+P	Credits
AGRI 1101(1)	Fundamentals of Chemistry	30+30	3
AGRI 1102(1)	Fundamentals of Biology	30+30	3
AGRI 1201(1)	Food Hygiene & Sanitation	45+30	4
AGRI 1202(1)	Chemistry & Analysis of Foods	45+30	4
AGRI 1092Y(1)	Fundamentals of Nutrition	45+0	3
AGRI 1093Y(1)	Basics of Food Production	45+30	4
AGRI 1100(1)	Occupational Safety & Health	15+0	1
AGRI 2159Y(3)	Statistical & Research Methods	30+30	3
AGRI 2160Y(3)	Food Preservation, Processing & Packaging	45+30	4

AGRI 2161Y(3)	Food Quality and Safety Management Systems	45+0	3
AGRI 2162Y(3)	Sensory Science	30+30	3
AGRI 2163Y(3)	Entrepreneurship, & Food Marketing	60+0	4
AGRI 2164Y(3)	Food Microbiology & Food Safety	30+30	3
AGRI 3126Y(3)	Novel Foods & Ingredients	45+0	3
AGRI 3127Y(3)	Food Control & Consumer Behaviour	45+0	3
AGRI 3128Y(3)	Recent developments in Food Safety & Food Innovation	45+0	3
AGRI 3139Y(3)	New Food Product Design, Development and Testing	45+30	4
AGRI 2000 (3)	Project		6

Total no. of credits : 61

10. Program Plan - Diploma in Food Safety & Food Innovation (Part-Time)

YEAR 1

Code	Module Name	Hr / Yr L+P	Credits
AGRI 1101(1)	Fundamentals of Chemistry	30+30	3
AGRI 1102(1)	Fundamentals of Biology	30+30	3
AGRI 1201(1)	Food Hygiene & Sanitation	45+30	4
AGRI 1202(1)	Chemistry & Analysis of Foods	45+30	4
AGRI 1092Y(1)	Fundamentals of Nutrition	45+0	3
AGRI 1093Y(1)	Basics of Food Production	45+30	4
AGRI 1100(1)	Occupational Safety & Health	15+0	1

YEAR 2

Code	Module Name	Hr / Yr L+P	Credits
AGRI 2159Y(3)	Statistical & Research Methods	30+30	3
AGRI 2160Y(3)	Food Preservation, Processing & Packaging	45+30	4
AGRI 2161Y(3)	Food Quality and Safety Management Systems	45+0	3
AGRI 2162Y(3)	Sensory Science	30+30	3
AGRI 2163Y(3)	Entrepreneurship, & Food Marketing	60+0	4
AGRI 2164Y(3)	Food Microbiology & Food Safety	30+30	3

YEAR 3

Code	Module Name	Hr / Yr L+P	Credits
AGRI 3126Y(3)	Novel Foods & Ingredients	45+0	3
AGRI 3127Y(3)	Food Control & Consumer Behaviour	45+0	3
AGRI 3128Y(3)	Recent developments in Food Safety & Food Innovation	45+0	3
AGRI 3139Y(3)	New Food Product Design, Development and Testing	45+30	4
AGRI 2000 (3)	Project		6

Total no. of credits : 61