

Module/Course Title: Advanced Quality Management					
module/ course code	Student work- load	Credits (ECTS)	Semester	Frequency	Duration
FPV 807	3 hours	3 Units	1st Sem.	e.g. each semester, each winter-term, etc.	1 semester
1	Types of courses a) Lectures b) Test / Exam	Contact hours 3 hours	Independent study X hours	Class size 6 students	
5	Prerequisites for participation e.g. must have successfully completed Food quality Control and Plant Sanitation at Undergraduate level.				
2	Learning outcomes On completion of the learning event the student should be able to: <ul style="list-style-type: none"> • Decipher the interrelationship between quality assurance and control as well as establishment of quality management systems • Define physical, chemical and biological qualities of food as well quality factors influencing consumer acceptability and safety. • Demonstrate deep understanding of the principles and concepts of total quality management systems/techniques, operational quality control and practical quality enhancement strategies in the food industry. • Have a good grasp of statistical quality control tools such as control charts and limits, Hoshin management theories, regression modelling and optimization functions/equations. • Exposed to recent development in international, regional and national quality certification, monitoring and enforcement e.g. ISO, codex Alimentarius, Standard Organization of Nigeria (SON) • Describe the effect of various food processing, packaging and preservation techniques on nutritional, microbiological and sensory qualities of foods. Determination of yield, record keeping GAP, GMP, and GHP in food processing and handling. • Demonstrate learning and apply principles of Hazard Analysis Critical Control Points (HACCP), microbiological criteria and the use of microbiological analysis to monitor food quality and safety. • Understand the principles and techniques of food plant sanitation e.g. Cleaning in Place (CIP) techniques. 				
3	Subject aims/Content Evolution of quality concepts, customer focus, total quality management, operational quality management, quality control and quality improvement. Evolution of quality management methodologies, i.e. statistical technique, Hoshin management. Quality function deployment, standards on quality management system i.e. ISO 9000 Standard. Effects of raw material quality and the various types of food processing on yield and quality of product. Sanitation in the food industry.				
4	Teaching methods e.g. project work, case studies, group work, lectures, discussions, tutorials, etc.				
6	Assessment methods Continuous Assessment (CAT), Assignments, Group work and Exams				
8	This module/course is used in the following degree programme/s as well				

	FST 809
10	Responsibility for module/course
11	<p>Other information</p> <p>e.g. bibliographical references</p> <ol style="list-style-type: none"> 1. Hubbard, Merton R. Statistical quality control for the food industry/Merton R. Hubbard—3rd ed. Kluwer Academic / Plenum Publishers 2. Food process modelling. Edited by LMM Tijskens, MLATM Hertog and BM Nicola. Published 2001, Woodhead Publishing Limited and CRC Press LLC 3. Ronald H. Schmidt and Gary E. Rodrick. Food Safety Handbook. A John Wiley & Sons Publication

Module/Course Title: Food Laws, Legislation and Policy - 2 Units					
module/ course code	Student work- load	Credits (ECTS)	Semester	Frequency	Duration
FPV 809	3 hours	2 Units	1st Sem.	e.g. each semester, each winter-term, etc.	1 semester
1	Types of courses a) Lectures b) Test / Exam	Contact hours 3 hours	Independent study X hours	Class size 6 students	
5	Prerequisites for participation e.g. must have successfully completed Food Additives, Safety and Toxicology at Undergraduate level.				
2	Learning outcomes On completion of the learning event the student should be able to: <ul style="list-style-type: none"> • Explain food laws, its philosophy and evolution. • Define food standards, statutory regulations/legislation and codes of practices. • Demonstrate deep understanding of the international regulations and requirements for food exports and/or imports e.g. EU regulations, FDA, etc. • Describe international, regional and national legislations on pesticide applications and residues in foods e.g. access to pesticides, regulatory control of pesticides. • Describe the various international conventions on pesticides regulations and use e.g. The Rotterdam Convention, The Stockholm Convention, The Basel Convention • Understand the basic principles of policy formulation and implementation and conceptual frameworks in agricultural policy processes. • Understand and describe participatory appraisal of community food and nutrition. • Demonstrate learning and apply principles of nutritional surveillance to assess the nutritional status and needs of a community. • Understand the several agricultural policy and programs gaps in the nation's quest for food and nutrition security 				
3	Subject aims/Content Food law, its philosophy and development. Food standards, codes to practice and statutory regulations. Food export and regulations. Legislations on food additives. Toxic substances in food. Detoxification of food and avoidance of contamination. Legislation on pesticide application to food raw materials and products. Food, Nutrition and Economic development. Conceptual framework for food policy development. Food and Nutritional situation appraisal. Policy formulation and implementation. Organization and coordination, monitoring and evaluation of food and nutrition policy. Review of Agricultural Policy in Nigeria.				
4	Teaching methods e.g. project work, case studies, group work, lectures, discussions, etc.				
6	Assessment methods Continuous Assessment (CAT), Assignments, Group work and Exams				
8	This module/course is used in the following degree programme/s as well FST 809				
10	Responsibility for module/course				
11	Other information				

e.g. bibliographical references

Module/Course Title: Special Topics in Sensory Analysis					
module/ course code FPV 817	Student work- load 3 hours	Credits (ECTS) 2 Units	Semester 1st Sem.	Frequency e.g. each semester, each winter-term, etc.	Duration 1 semester
1	Types of courses a) Lectures b) Test / Exam	Contact hours 3 hours	Independent study X hours	Class size 6 students	
5	Prerequisites for participation e.g. must have successfully completed Introductory Sensory Evaluation of foods at Undergraduate level.				
2	Learning outcomes On completion of the learning event the student should be able to: <ul style="list-style-type: none"> • Define sensory evaluation, types, objectives and applications • Demonstrate deep learning of the recent developments in taste, odour and flavour measurements • Describe the principles and theories of instrumental sensory analysis in the food industry (e.g. Optical Sensors and Electronic Eyes, Mechanical texture analysis of foods) • Understand the relationships and interactions between physical, chemical and sensory attributes of foods. • Have a good grasp and describe the use automation in sensory analysis (control systems and information technologies) to reduce the need for human work in determining consumer acceptability, preference and willingness to pay for premium. 				
3	Subject aims/Content Recent developments on taste, odour and flavour assessments in food products. Principles of consumer acceptability studies. Interrelationship between physical, chemical and sensory attributes of foods. Automation in sensory analysis.				
4	Teaching methods e.g. project work, case studies, group work, lectures, discussions, etc.				
6	Assessment methods Continuous Assessment (CAT), Assignments, Group work and Exams				
8	This module/course is used in the following degree programme/s as well FST 809				
10	Responsibility for module/course				
11	Other information e.g. bibliographical references 1. Moskowitz, Howard R. (2006). Sensory and consumer research in food product design and development / Howard R. Moskowitz, Jacqueline H- Beckley, and Anna V. A. Resurreccion. First Edition 2006. IFT Press Series 2. Stephanie Clark Michael Costello MaryAnne Drake Floyd Bodyfelt (2009) (Editors). The Sensory Evaluation of Dairy Products. Second edition. Springer Science+Business Media, LLC 2009 3. Andrew J. Rosenthal (1999). Food Texture Measurement and Perception. Aspen Publishers, Inc. Gaithersburg, Maryland.				

Module/Course Title: Food Product Development					
module/ course code FPV 818	Student work- load 3 hours	Credits (ECTS) 2 Units	Semester 2nd Sem.	Frequency e.g. each semester, each winter-term, etc.	Duration 1 semester
1	Types of courses a) Lectures b) Test / Exam	Contact hours 3 hours	Independent study X hours	Class size 6 students	
5	Prerequisites for participation e.g. must have successfully completed Food product development and sensory evaluation at Undergraduate level.				
2	Learning outcomes On completion of the learning event the student should be able to: <ul style="list-style-type: none"> • Define products, product line, product mix and product development. • Understand the various stages in food product development, strategies and methods. • Describe product life cycle and reasons for new products success or failure. • Demonstrate deep understanding of the multidisciplinary approaches for developing new food products and processes, within the context of industry-cooperated projects. • Explain the rudiments of group dynamics and human relations. • Describe the various factors that influence the process of new food product development and launching. • Understand the basic principles of mathematical modelling for process design and automation. • Understand and describe the layout, types and format of feasibility report. • Demonstrate learning and apply principles of market and consumer survey in determining the potential consumer acceptability of new food product. 				
3	Subject aims/Content Product development concept: basic considerations for new products development – strategies and methods. Multidisciplinary approaches for developing new food products and processes, in the context of industry-cooperated projects. Group dynamics and interpersonal skills. Influence of process factors on product and process development. Analysis of mathematical models for design a food process. Feasibility report preparation. Market survey and consumer survey. Food acceptability.				
4	Teaching methods e.g. project work, case studies, group work, lectures, discussions, etc.				
6	Assessment methods Continuous Assessment (CAT), Assignments, Group work and Exams				
8	This module/course is used in the following degree programme/s as well				
10	Responsibility for module/course				
11	Other information e.g. bibliographical references 1. Mary Earle, Richard Earle and Allan Anderson (2001). Food product development. Woodhead Publishing Limited 2. Moskowitz, Howard R. (2006). Sensory and consumer research in food product design and				

development / Howard R. Moskowitz, Jacqueline H. Beckley, and Anna V. A. Resurreccion. First Edition
2006. IFT Press Series.

Module/Course Title: Food Business Management and Entrepreneurship					
module/ course code FPV 821	Student work- load 3 hours	Credits (ECTS) 2 Units	Semester 1st Sem.	Frequency e.g. each semester, each winter-term, etc.	Duration 1 semester
1	Types of courses a) Lectures b) Test / Exam	Contact hours 3 hours	Independent study X hours	Class size 4 students	
5	Prerequisites for participation e.g. must have successfully completed Production Economics as well as Introductory Entrepreneurship at Undergraduate level.				
2	Learning outcomes On completion of the learning event the student should be able to: <ul style="list-style-type: none"> • Define management theories, principles and practice with case study of food establishment • Understand the various concept and approaches in food marketing, branding and promotion. • Describe food business laws and regulations (national, regional and international). • Understand and describe the layout, types and format of feasibility studies for food based industries. • Demonstrate deep understanding of the multidisciplinary approaches for food business analysis, technology selection, financial management and auditing. • Explain the rudiments of general and project management. • Understand the basic principles of mathematical modelling for process design and automation. • Demonstrate learning and applications of management information system • Have a sound knowledge of waste handling, treatment and disposal in the food industry 				
3	Subject aims/Content Management peculiarities of food industries. Marketing concept and marketing mix. Food business law. Preparation of feasibility studies for food – based industries. Business analysis, financial and cost analyses, technology selection, marketing analysis, product management, food safety and regulation, waste management in food industries, proposal preparation, general management and project management, management of information system.				
4	Teaching methods e.g. project work, case studies, group work, lectures, discussions, etc.				
6	Assessment methods Continuous Assessment (CAT), Assignments, Group work and Exams				
8	This module/course is used in the following degree programme/s as well				
10	Responsibility for module/course				
11	Other information e.g. bibliographical references				