MODULE TITLE	**New Food Product Development**
MODULE LEVEL	6
MODULE REFERENCE NUMBER	ASC_6_453_1920
CREDIT VALUE	20
STUDENT STUDY HOURS	Total hours: 200 Direct class contact: 36 hours Student managed learning hours: 150 hours
PRE-REQUISITE LEARNING (IF APPLICABLE)	None
CO-REQUISITE MODULES (IF APPLICABLE)	None
COURSE(S)	
YEAR AND SEMESTER	Semester 1
MODULE COORDINATOR	Adri Bester
SUBJECT AREA	Food Sciences
SHORT DESCRIPTION	This unit requires students to engage in the management of processes involved in the design and development of food products. To be successful a new product has to 'look good and taste good', and be safe and legal in a competitive market. Students, working together in small groups, adopt an allocated role within the group. The groups respond to a product development brief by designing and developing a new food product or an extension of an existing product. Students are required to operate within current food hygiene legal requirements and demonstrate good manufacturing practice. The modern

	NPD technologist is required to have a fundamental understanding of Total Quality Management Standard requirements, HACCP and shelf life determination. A key outcome is that students learn to manage resource constraints, time constraint and find ways of resolving different expectations and directions within the group. Students will prepare an individual portfolio describing their experience and contribution. This Module takes a practical, technological approach to food product development and deliberately encourages students to experience the constraints and conflicts arising from team work in the design, prototype and pilot manufacturing process.
AIMS OF THE MODULE	1. To identify the key drivers to successful new food product development and conduct market research. 2. To evaluate models and approaches to new food product development. 3. To experience the development of a new food product as a team activity and to manage a specific role within a group. 4. To explain the use of specifications in the design of new food products. 5. To build a model for the food product development process 6. To ensure the design of new food products gives assurance of the safety, conformance to legal requirements, marketing opportunity and offers commercial appeal. 7. Carry out appropriate tests and examinations which assure food safety and meets requirements for due diligence. 8. To experience a microbiological investigation of the developed product first hand. 9. To present the outcomes of the process in an academic poster.
LEARNING OUTCOMES: KNOWLEDGE & UNDERSTANDING	1. Interpret a commercial brief for a new food product in terms of a design specification. 2. Conduct systematic development trials to formulate and manufacture a new food product to meet food safety requirements. 3. Manage a functional role within the group and report the outcomes of meetings. 4. Carry out and document authoritative shelf life and transit tests on food products, and understand how technical resources can be used to modify and improve product performance in these areas; 5. Carry out a reliable prediction of manufacturing costs for a new food product; 6. Write a detailed product specification at the conclusion of the development. 7. Interpretation of industry microbiological guidelines

	8. Practical food legislation 9. Nutritional Analysis software
LEARNING OUTCOMES: INTELLECTUAL SKILLS	1. Develop new food products within requirements of food safety, food preservation and good manufacturing practice 2. Demonstrate the ability to conduct risk assessment regarding food safety. 3. Developing technical vocabulary required in the modern food industry. 4. Reflect on practice, evaluate and make recommendations for improvement in developing new food products. 5. Contribute effectively to a group activity.
LEARNING OUTCOMES: PRACTICAL SKILLS	1. Good laboratory practice, health and safety in conducting investigations into food production, safety and food preservation. 2. Apply microbiological techniques to evaluate food safety 3. Conduct appropriate sensory evaluation 4. Problem solving 5. Project management 6. Decision making 7. People and task coordination 8. Market analysis 9. Presentation skills – academic as well as pitching commercial ideas in a competitive market. 10. Marketing and consumer studies
LEARNING OUTCOMES: TRANSFERABLE SKILLS	1. Decision making skills, as multiple options have to be screened and conflicting priorities reconciled. 2. Team building and leadership skills among peers, as the development groups organise themselves. 3. Information recording and categorising skills as a documentary portfolio is compiled. 4. Communication skills – use of oral and written communication skills is required, encouraged and developed in this unit. 5. Numeracy skills – the quantitative nature of food preservation requires data collection and evaluation. 6. Use of information technology – this is required both in the search of relevant information, and in the preparation of processing of assignments and practical reports. 7. Group work in practical sessions and managing ‘conflict’ and compromise. Identify individual contributions to the team effort. 8. Management of health and safety and preparing safe foods.

EMPLOYABILTY	NEW PRODUCT DEVELOPMENT IS ONE OF THE MAIN CATEGORIES ON YOURFOODJOB.COM BECAUSE WITH AROUND 1,500 FOOD PRODUCTS LAUNCHED EVERY QUARTER, NPD IS THE ENGINE DRIVER FOR THE FOOD & BEVERAGE INDUSTRY. AS TIME, TRENDS & CONSUMER NEEDS CHANGE, FOOD MANUFACTURERS HAVE TO KEEP UP WITH COMPETITORS SO ARE ALWAYS LOOKING FOR CREATIVE INDIVIDUALS WHO CAN TOP THE MARKET WITH A NEW INNOVATIVE PRODUCT.
TEACHING STYLE / LEARNING PATTERN	This module is delivered by a series of keynote lectures by the module leader, Intellectual Property lecture by LSBU's IP Manager, Academic Poster design session from LSBU's Digital Skill Centre, and two sessions under guidance from Associate Professor Mandy Maidment in the microbiology lab. The rest comprises of practical guided sessions whilst the groups develop their products in the food laboratory/processing room.
SUMMARY INDICATIVE CONTENT	1. Drivers in NPD 2. Market analysis 3. Sensory characterizing 4. IT 5. Microbiology and the interpretation of industry guidelines
ASSESSMENT *(ELEMENTS & WEIGHTING)*	The Module is assessed entirely by evaluation of coursework carried out through the semester as evidenced by a completed individual portfolio of the product development process. The pass mark for level 6 modules is 40%.

INDICATIVE SOURCES (CORE MATERIALS)	Product development guide for the food industry 2nd ed. Campden BRi New food product development : from concept to marketplace Boca Raton, FL : CRC Press,3rd ed. ***Food and Drink Industries Network.*** *www.**fdin**.org.uk/*
INDICATIVE SOURCES (OPTIONAL MATERIALS)	***Creating New Foods. The Product Developer's Guide* - the Web Edition** http://www.nzifst.org.nz/creatingnewfoods/