Liverpool John Moores University

Title:	Nutritional Food Science
Status:	Definitive
Code:	**5101SSLN** (123080)
Version Start Date:	01-08-2016
Owning School/Faculty:	Sports Studies, Leisure and Nutrition
Teaching School/Faculty:	Sports Studies, Leisure and Nutrition

Team	Leader
Katie Lane	Y
Elizabeth Mahon	
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Academic Level:	FHEQ5	**Credit Value:**	20	**Total Delivered Hours:**	42
Total Learning Hours:	200	**Private Study:**	158		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	20
Practical	15
Seminar	5

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Practical Report (2,500 words)	50	
Exam	AS2	Exam	50	2

Aims

To study the structure, function and interaction of food components. To identify the need for food preservation and processing operations (including the conversion of agricultural raw materials into food products; and to outline the major chemical, physical, microbial, biological and nutritional changes occurring in foods during food

processing and food manufacture.

Learning Outcomes

After completing the module the student should be able to:

1	Describe the structural function and chemical properties of food components
2	Assess and evaluate the nutritional effects of treatments and processing on the composition of foods
3	Conduct food-related experimental work, testing hypotheses and analysing data using scientific methodologies
4	Assess and evaluate food microorganisms in processing and development of food products

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Report	1	2	3	4
Exam	1	2	3	4

Outline Syllabus

Constituent substances of foods; principal macro- and micro-nutrients; aromas, flavour and colour compounds; non-nutrient and anti-nutrient substances; Objectives of food processing and preservation; added value and improvement of nutritional value; Changes which occur during food processing and cooking; chemical interactions, developed flavours, aromas and colours; nutrient losses; denaturation, oxidation, hydrolysis; changes in texture; Microbial changes food processing and development including food fermentation

Learning Activities

Lectures, practicals, and student-led seminars. Group-based practical work will allow students to work collectively to develop understanding of important food-related experimental methodologies, help develop analytical and critical thinking, and develop report writing skills. Student-led seminars will require students to apply their understanding of food processing operations to specific foods, critically evaluating the effects of such processing operations orally to small groups of fellow students.

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