Sheffield Hallam University

MODULE DESCRIPTOR

TITLE	Food Composition & Safety
SI MODULE CODE	19-4F01-00L
CREDITS	20
LEVEL	4
JACS CODE	D610
SUBJECT GROUP	Food
DEPARTMENT	Service Sector Management
MODULE LEADER	Cecile Morris

MODULE STUDY HOURS (based on 10 hours per credit)*			
Scheduled Learning and Teaching Activities	**Placement (if applicable)**	**Independent Guided Study**	**Total Number of Study Hours**
54		146	200

MODULE AIM

- To relate the major food component structure to their impact on food characteristics and nutritional properties.
- To increase awareness of food safety issues and develop an understanding of the techniques used to assess and control food safety.

MODULE LEARNING OUTCOMES

By engaging successfully with this module a student will be able to

1. Outline the structure of major food components.
2. Describe the composition of major food commodity groups.
3. Explain the changes that occur in selected aspects of food storage, preparation and processing.
4. Describe the nature of agents of food-borne illness, particularly microbial pathogens, and explain how they can be controlled.
5. Perform safely selected food analytical techniques and microbiological examination of foods.
6. Analyse and interpret experimental findings, clearly communicated in laboratory reports.

INDICATIVE CONTENT

- The structure and properties of macronutrients (fats, proteins, carbohydrates), pigments, enzymes and additives.
- The role that macronutrient content and colloids have on the properties of major food groups (meat, dairy products, eggs, cereals, fruit and vegetables) and the effect of heat, processing or storage on their quality.
- Nature, incidence and control measures of the principal physical, chemical and biological agents of food-borne illness. Implementation of food hygiene practice, temperature controls, basis of HACCP. Basic principles of food preservation.
- Standard methods for chemical, physical and microbiological analysis of foods with safe laboratory practice.

LEARNING, TEACHING AND ASSESSMENT - STRATEGY AND METHODS

Students will be supported in their learning, to achieve the above outcomes, in the following ways:

Key principles will be delivered through a lecture program, with the understanding expanded and developed upon in a series of practical investigations using the laboratory facilities. The food composition aspect will precede the delivery of the food safety element so as to provide a foundation knowledge required for the Nutrition modules taught at the same time in the first semester. Students follow a Food composition workbook in the 1st semester, guiding them through experiments on the analysis of foods. Continuous formative feedback will be given on their interpretation of the experimental findings, additionally, students will be given the opportunity to write up a non-assessed laboratory practical (proteins investigation), individually or in group solely for the purpose of getting formative feedback before the assessed laboratory report is due. The food safety element will have a series of microbiological experiments underpinning the completion of a laboratory report. A drop-in session is built in the module to help with this assignment. Non-contact time should be spent on self-study together with directed reading and exercises developed to support learning.

ASSESSMENT TASK INFORMATION

Task No.*	Short Description of Task	SI Code EX/CW/PR	Task Weighting %	Word Count or Exam Duration**	In-module retrieval available
1	Lab report (food composition) Individual	CW	50	2000 words	N
2	Lab report (food safety) Individual	CW	50	2000 words	N

The module will be assessed via two lab reports bearing on the practical elements of both the food composition and food safety parts of the module. The assessed practicals will be: “carbohydrates investigation” and “the effect of heat on the microbiological quality of food”. In order to prepare for those tasks, the students will be supported by a lecture on lab report structure and “dos and don’ts”. Moreover, students will be given the opportunity to write up “proteins investigation” individually or in groups for which they will receive formative feedback prior to submitting the 1st assessed lab report. In the 2nd semester (food safety), a drop-in session will be available for students to ask specific questions and clarify any area they wish prior to the hand-in date of the 2nd assessed lab report.

FEEDBACK

Students will receive feedback on their performance in the following ways:

Written formative feedback on the mock coursework assignment (proteins investigation) will be made available within 3 weeks of its hand-in date. Written summative/formative feedback on the assessed lab reports will be made available within 3 weeks of their hand-in date.

LEARNING RESOURCES FOR THIS MODULE (INCLUDING READING LISTS)

Recommended Texts
Proudlove R K (2009)The science and technology of foods. 5th edition Forbes Publications.
Lean, M E J (2006) Fox & Cameron's Food Science, Nutrition and Health. 7th Edition Hodder Arnold.
Barham, P. (2000) The Science of Cooking, Springer, Berlin
Mclaughlin J & Little,C (2006) Hobbs',Food Poisoning and Food Hygiene 7th Ed. Hodder Arnold
Garbutt, J (1997) Essentials of Food Microbiology Arnold
Adams, M.R. and Moss, M.O. (2007) Food Microbiology. 3rd Edition The Royal Society of Chemistry, Cambridge
Periodicals – The following journals are indicative only – you will find that the library subscribes to a wide range of journals, with many available online.
•Nutrition and Food Science (Emerald) •Modus •British Food Journal (Emerald) •Chemistry and Industry •Food Manufacturer •Food Processing •The Food Magazine •Food Science & Technology
Internet sources – the resources included below provide you with an indication of the wealth of information available online relating to service, operations and quality management. As you discover additional useful resources, please email the teaching team and we will continue to develop a valuable resource together.
http://www.ifst.org/ The Institute of Food Science & Technology http://www.hpa.org.uk/ The Health Protection Agency http://www.food.gov.uk/ The Food Standards Agency http://www.efsa.europa.eu/ European Food Safety Authority http://www.nutrition.org.uk The British Nutrition Foundation

SECTION 2 MODULE INFORMATION FOR STAFF ONLY

MODULE DELIVERY AND ASSESSMENT MANAGEMENT INFORMATION

MODULE STATUS - INDICATE IF ANY CHANGES BEING MADE

NEW MODULE	N
EXISTING MODULE - NO CHANGE	N
Title Change	N
Level Change	N
Credit Change	N
Assessment Pattern Change	Y
Change to Delivery Pattern	N
Date the changes (or new module) will be implemented	**09/2013**

MODULE DELIVERY PATTERN - *Give details of the start and end dates for each module. If the course has more than one intake, for example, September and January, please give details of the module start and end dates for each intake.*

	Module Begins	**Module Ends**
Course Intake 1	24/09/2013	26/06/2014
Course Intake 2	DD/MM/YYYY	DD/MM/YYYY
Course Intake 3	DD/MM/YYYY	DD/MM/YYYY

Is timetabled contact time required for this module?	Y

Are any staff teaching on this module non-SHU employees?	N
If yes, please give details of the employer institution(s) below	
What proportion of the module is taught by these non-SHU staff, expressed as a percentage?	

MODULE ASSESSMENT INFORMATION

Indicate how the module will be marked	
***Overall PERCENTAGE Mark of 40%**	Y
***Overall PASS / FAIL Grade**	N

**Choose one only – module cannot include both percentage mark and pass/fail graded tasks*

SUB-TASKS

Will any sub-tasks (activities) be used as part of the assessment strategy for this module?	N

FINAL TASK

According to the Assessment Information shown in the Module Descriptor, which task will be the LAST TASK to be taken or handed-in? (Give task number as shown in the Assessment Information Grid in Section 1 of the Descriptor)	Task No. 2

NON-STANDARD ASSESSMENT PATTERNS

MARK 'X' IN BOX IF MODULE ASSESSMENT PATTERN IS NON STANDARD, eg MODEL B, ALL TASKS MUST BE PASSED AT 40%. **NB: Non-standard assessment patterns are subject to faculty agreement and approval by Registry Services - see guidance. notes.**	