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MODULE DESCRIPTOR

Module Title

Food Analysis

Reference	AS1014	Version	1
Created	June 2017	SCQF Level	SCQF 7
Approved	June 2018	SCQF Points	15
Amended		ECTS Points	7.5

Aims of Module

To provide students with an understanding of the basic principles of analytical and separation techniques used for the analysis of food.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Demonstrate knowledge of the main chemical methods used for the preparation of a simple food label.
2	Demonstrate knowledge of the principles of the main chemical instrumental methods used in food analysis.
3	Demonstrate knowledge of the principles of indirect methods used for assessing the organoleptic properties of food.
4	Recognise the importance of sampling, sample preparation and quality control in food analysis.

Indicative Module Content

Sampling and sample preparation. Calibration, accuracy, precision, limits of detection and sensitivity. Chemical analysis of fat, protein, moisture, ash, carbohydrate and fibre. Physical and chemical contaminants. Calorimetry. Analysis of colour, texture and flavour. High Performance Liquid Chromatography. Gas Chromatography. Spectroscopy. Electrochemistry.

Module Delivery

Theoretical material is delivered by lectures and supported by tutorials, online resources and laboratory practicals.

Indicative Student Workload	Full Time	Part Time
Contact Hours	40	N/A
Non-Contact Hours	110	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

Module Ref:	AS1014 v1

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Examination	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4
Description:	Unseen, closed book examination, apart from one seen essay on practical application of analytical methods.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

This module is assessed using the one component of assessment as detailed in the Assessment Plan. To pass this module, students must achieve a module grade D or better.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A mark for C1 of 70 % or more.
B	A mark for C1 between 60 and 69 %.
C	A mark for C1 between 50 and 59 %.
D	A mark for C1 between 40 and 49 %.
E	MARGINAL FAIL. A mark for C1 between 35 and 39 %.
F	FAIL. A mark for C1 of less than 35%.
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None, in addition to course entry requirements.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	MONK, P.M., 2001. *Fundamentals of Electroanalytical Chemistry.* 1st ed. New York: Wiley.
2	NEILSON, S.S., 2017. *Food Analysis.* 5th ed. New York: Springer.
3	POMERANZ, Y. and MELOAN, C.E., 1994. *Food Analysis.* 3rd ed. New York: Chapman and Hall.
4	PRITCHARD, F.E. and BARWICK V., 2007. *Quality Assurance in Analytical Chemistry.* 1st ed. New York: Wiley.
5	CROUCH, S.R., SKOOG, D.A. and HOLLER, F.J., 2018. *Principles of Instrumental Analysis.* 7th ed. Brooks Cole.