

## MODULE DESCRIPTOR

### Module Title

Food, Energy and Nutrients

Reference	PL1007	Version	3
Created	March 2024	SCQF Level	SCQF 7
Approved	June 2022	SCQF Points	30
Amended	April 2024	ECTS Points	15

### Aims of Module

To provide students with knowledge of the classification of food commodities, and an understanding of energy balance and nutrients in food.

### Learning Outcomes for Module

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

- 1 Describe the classification of the major food commodities and their contribution to a balanced diet.
- 2 Describe the principles of energy balance, including methods of its measurement and estimation.
- 3 Describe the properties, functions and food sources of nutrients, and the causes and consequences of inadequate and excessive intakes, including prevention and treatment.
- 4 Describe the processes involved in nutrient absorption, metabolism, storage, interactions, and excretion.
- 5 Explain the concept, determination and application of dietary reference values, and advise about modifying a diet to meet dietary recommendations.

### Indicative Module Content

Fruits and vegetables, beans and pulses, herbs and spices, dairy foods and milk, eggs, beverages, meat, seafood, cereals, oils and spreads, and the Eatwell Guide. Dietary reference values. Energy, energy balance, energy intake, energy expenditure, physical activity, and physical activity guidelines. Dietary protein, carbohydrate, lipids, water and fluid balance, alcohol, vitamins, minerals and trace elements. Structure, function, distribution, digestion, absorption, transport, storage and excretion; bioavailability; and requirements. Sources, supplementation, fortification, average intakes and nutritional status. Deficiency and toxicity signs, symptoms, prevention and treatment. Alignment with UN Sustainability Development Goals.

### Module Delivery

Theoretical material is delivered by lectures and web based material that is contextualised by tutorials and practicals including dietary analysis.

**Indicative Student Workload**

	Full Time	Part Time
Contact Hours	65	N/A
Non-Contact Hours	235	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	N/A
Actual Placement hours for professional, statutory or regulatory body		

**ASSESSMENT PLAN**

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

**Component 1**

Type:	Examination	Weighting:	70%	Outcomes Assessed:	1, 2, 3, 4
Description:	Closed book examination.				

**Component 2**

Type:	Coursework	Weighting:	30%	Outcomes Assessed:	5
Description:	A report on a 7-day diet and activity diary analysis.				

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

The first grade represents Component 1 (examination, EX1) weighted as major (70%) and the second, Component 2 (coursework, CW1), weighted as minor (30%). A minimum module grade of D is required in both components for a pass. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	AA, AB
<b>B</b>	AC, AD, BA, BB, BC, CA
<b>C</b>	BD, CB, CC, CD, DA, DB
<b>D</b>	DC, DD
<b>E</b>	AE, AF, BE, BF, CE, CF, DE, DF, EA, EB, EC, ED, EE, EF, FA, FB, FC, FD
<b>F</b>	FE, FF
<b>NS</b>	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 BENDER, D.A. and CUNNINGHAM, S.M.C., 2021. *Introduction to nutrition and metabolism*. 6th ed. Boca Raton FL: CLC Press Taylor and Francis Group.
- 2 CAMPBELL PLATT, G., ed., 2018. *Food science and technology*. 2nd ed. Hoboken, NJ: Wiley Blackwell.
- 3 DEPARTMENT OF HEALTH, 1991. *Dietary reference values for food, energy and nutrients for the United Kingdom. Report on health and social subjects, 41*. London: HMSO.
- 4 INSEL, P.M., et al., 2017. *Nutrition*. 6th ed. Burlington, MA: Jones and Bartlett Publishers.
- 5 LANHAM-NEW, S.A. et al., eds., 2020. *Introduction to human nutrition*. 3rd ed. Chichester: Wiley Blackwell.
- 6 LANHAM NEW, S.A., MACDONALD, I.A. and ROCHE, H.M., 2010. *Nutrition and metabolism*. 2nd ed. Hoboken: John Wiley and Sons, Ltd.
- 7 SCIENTIFIC ADVISORY COMMITTEE ON NUTRITION, 2011. *Dietary reference values for energy*. London: TSO.
- 8 SCIENTIFIC ADVISORY COMMITTEE ON NUTRITION, 2015. *Carbohydrates and health*. London: TSO.