

MODULE DESCRIPTOR

Module Title

Introduction To Human Nutrition

Reference	PLM401	Version	1
Created	May 2022	SCQF Level	SCQF 11
Approved	August 2022	SCQF Points	30
Amended	August 2021	ECTS Points	15

Aims of Module

To enable students to develop a comprehensive understanding of food, energy and nutrients, and factors that influence their intake and requirements throughout the lifespan, in order to identify dietary improvements for human health.

Learning Outcomes for Module

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

- 1 Demonstrate a detailed understanding of the physiological and metabolic function of the human body.
- 2 Critically evaluate the major food commodities within the UK and internationally, including factors that affect their chemical composition, nutritional quality and safety, and methods to analyse food composition.
- 3 Demonstrate a comprehensive understanding of energy balance and the nutrient and non-nutrient components of foods and drinks that affect diet and health, including function, sources, digestion, absorption, metabolism, transportation, storage, excretion, and consequences of deficiency and toxicity.
- 4 Demonstrate a critical understanding of nutrient requirements throughout the lifespan and the factors that influence dietary intake and requirements.
- 5 Integrate knowledge and understanding of nutrients and non-nutrient components of foods and drinks to identify dietary improvements for human health.

Indicative Module Content

The human body and its functions, including digestion, absorption, excretion and respiration; hepatic and renal function; cardiovascular, neuro-endocrine, musculoskeletal and haematological systems; and immunity and thermoregulation. Fruits and vegetables, beans and pulses, herbs and spices, dairy foods and milk, eggs, beverages, meat, seafood, cereals, oils and spreads, and food-based dietary guidelines. Factors that affect chemical composition and nutritional quality of food, including methods of food production, preparation, preservatives and additives, fortification and format; sources of food supply; and methods of cooking and storage. Food composition analysis methods and food safety. Food labelling legislation and nutrition and health claims. Energy balance, protein, carbohydrate, lipids, water, fluid and electrolyte balance, alcohol, vitamins, minerals and trace elements. Structure, function, sources, distribution, digestion, absorption, transport, storage, excretion, bioavailability, requirements, deficiency and toxicity. Metabolism. Supplementation. Anti-nutrients, toxicants, pharmacologically active agents (drugs), nutrient-drug and nutrient-nutrient interactions, nutraceuticals and functional foods. Dietary reference values. The impact of religious and cultural beliefs, and financial/social and environmental circumstances on nutritional status. Diet design and nutrient analysis.

Module Delivery

Online learning supported by directed reading, problem-based study materials, and contact / structured discussion with peers and academic staff. 'Contact Hours' included in 'Indicative Student Workload' represent online discussions and other online interactions.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	24	24
Non-Contact Hours	276	276
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	300
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

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

Component 1

Type:	Examination	Weighting:	50%	Outcomes Assessed:	1, 2, 3
Description:	Online Examination.				

Component 2

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	4, 5
Description:	Report.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

This module is assessed using the two components of assessment as detailed in the Assessment Plan. The first grade represents Component 1 (online examination) equally weighted (50%) with the second, Component 2 (report; 50%). 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:
A	AA, AB, BA
B	AC, AD, BB, BC, CA, CB, DA
C	BD, CC, CD, DB, DC
D	DD
E	AE, AF, BE, BF, CE, CF, DE, DF, EA, EB, EC, ED, EE, EF, FA, FB, FC, FD, FE
F	FF
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 BENDER, D.A. & CUNNINGHAM, S.M.C., 2021. *Introduction to nutrition and metabolism*. 6th ed. Boca Raton FL: CRC Press.
- 2 BUTTRISS, J.L. et al., eds., 2018. *Public health nutrition*. 2nd ed. Chichester: 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 LANGLEY-EVANS, S.C., 2015. *Nutrition, health and disease: a lifespan approach*. 2nd ed. Chichester: Wiley.
- 5 LANHAM-NEW, S.A. et al., eds., 2020. *Introduction to human nutrition*. 3rd ed. Chichester: Wiley Blackwell.
- 6 LOVEGROVE, J. et al., eds., 2015. *Nutrition research methodologies*. Chichester: Wiley Blackwell.
- 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.