UNIVERSITY of BRADFORD

Module Descriptor

Nutrition and Energy

Module Code:	CLS4003-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Pharmacy and Medical Sciences
Subject Area:	Clinical Sciences
FHEQ Level:	FHEQ Level 4
Module Leader:	Dr Stephanie Lee

Additional Tutors:

Pre-requisites:	
Co-requisites:	Integrated Medical Sciences 2018-19

Contact Hours

Type	Hours
Lectures	29
Tutorials	3
Laboratory	26
Directed Study	142

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Semester 2 (Feb - May)

Module Aims

To develop an understanding of digestion, absorption, storage and utilisation of food, the growth, development and structure of the gastro-intestinal tract, and the most common inherited and acquired defects. To promote enquiry into the relationships between diet, lifestyle, ethnicity, health and disease and consider how drugs are eliminated from the body.

Outline Syllabus

Overview of GI system: embryology, anatomy, structure and function, digestion and regulatory systems. Upper GI function: gastric structure and function, local gut reflexes and hormone signalling systems, helicobacterium pylori, principles of drug treatment of gastric and oesophageal complaints. Absorption: normal function and malnutrition, malabsorption and food intolerance. Structure and function of pancreas, small intestine, liver and bowel, gastric processing of food, hormonal and neuronal control, uptake and cellular processing of biological molecules, enterohepatic recirculation, common hepatobiliary disorders, gut transit times, diarrhoea and constipation, colorectal cancer. Diet, food values and nutritional requirements, parenteral nutrition, obesity and eating disorders: leptin, eating behaviour and disorders, social and cultural factors affecting diet. Storage and utilisation of food, carbohydrate, fat, amino acid and protein metabolism, integration of metabolism. Basic endocrinology related to normal nutrition and metabolism, specialised metabolism in muscle and adipose tissue, metabolic effects of exercise, blood glucose homeostasis, type 1 and type 2 diabetes, physiological and metabolic responses to stress such as cold, infection and trauma. Introduction to drug clearance: absorption, distribution metabolism and excretion in urine and bile. Metabolic effects of alcohol and drug abuse. Inflammatory bowel disease.

Module Learning Outcomes

On successful completion of this module, students will be able to...

1 1.1. Describe the development, structure and function of the gastro-intestinal tract and related organs.

1.2 Discuss the basic principles of human nutrition and be aware of the common diseases affecting the GI tract and their treatment.

1.3 Describe the biochemistry and physiology of nutrient utilisation in the body.

2 2.1 Discuss case studies and the effects of stress and disease on nutrition.

3 3. Evaluate case studies, plan and undertake problem-solving exercises and work to clearly defined targets.

Learning, Teaching and Assessment Strategy

Information outlining the knowledge and understanding required of this module is delivered in lectures. Tutorials, seminars, practicals and problem-based workshops will be used to reinforce the taught component and formative assessments will allow you to monitor your progress. Self-directed learning to support each topic will take place within the directed study time. You will work in small groups for problem-solving exercises and support of directed learning. A practical assessment and MCQ examination will be used to assess your knowledge base and directed learning.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Examination - MCQ	One 1.5 hour MCQ - End of Semester 2	1.5 hours	80%	Yes
Summative	Coursework	Practical Assessment Anatomy Spot Test - End of Semester 2		20%	No

Legacy Code (if applicable)

CS-1005D

Reading List

To view Reading List, please go to **rebus:list**.