

Biology for Clinical Sciences

Module Code:	CLS4007-B
Academic Year:	2018-19
Credit Rating:	20
School:	School of Pharmacy and Medical Sciences
Subject Area:	Clinical Sciences
FHEQ Level:	FHEQ Level 4

Pre-requisites:

Co-requisites:

Contact Hours

Type	Hours
Lectures	32
Tutorials	15
Laboratory	9.5
Directed Study	143.5

Availability Periods

Occurrence	Location/Period
BDA	University of Bradford / Academic Year (Sept - May)

Module Aims

To develop knowledge and understanding of the functions of cell components, the processes underlying cellular metabolism, the principles and importance of homeostasis and the roles of the nervous and endocrine systems in homeostatic co-ordination and response.

Outline Syllabus

Prokaryotic and eukaryotic cells. Structure and biological roles of the main macromolecules. Functions of the main organelles of a eukaryotic cell. Biological role of enzymes and the mechanism by which they work. Protein synthesis. Release of energy in living cells. Antibiotics and antimicrobial chemotherapy. Introduction to Body Tissues and organ

systems.

Homeostasis.

Role of positive and negative feedback system in maintaining homeostasis. Functions, organisations and roles of the nervous and endocrine systems. Transmission of electrical impulses along the nerve and across the synapse. Function and organisation of the endocrine system.

Roles of the nervous and endocrine systems in the regulation and control of body fluids, glucose and electrolytes.

Module Learning Outcomes

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

- 1 Describe the structure and function of prokaryotic and eukaryotic cells and major macromolecules.
- 2 Explain enzyme function, protein synthesis and cellular respiration.
- 3 Describe the key features of human tissues and organ systems.
- 4 Explain the principles of homeostasis and the regulation and control of body processes by the nervous and endocrine systems.
- 5 Carry out biochemical and physiological investigations.
- 6 Describe the factors required to ensure safe working in the laboratory.
- 7 Apply your study skills to carry out independent study in an area of applied biology.

Learning, Teaching and Assessment Strategy

Information outlining the knowledge and understanding required of this module is delivered in lectures. Tutorials and practical sessions will be used to reinforce the taught component. Formative assessments, workbooks and checklists will be used to monitor your progress. Your knowledge base will be assessed by examinations which cover taught components, practical work and directed learning. During directed study hours you are expected to undertake relevant reading to consolidate your learning of the syllabus; to prepare for formative assessments, practicals and tutorials; to revise material for summative assessments and to carry out independent study in an area of applied biology as directed.

Mode of Assessment

Type	Method	Description	Length	Weighting	Final Assess'
Summative	Examination - MCQ	One 1 hour MCQ - End of Semester 1	1 hour	50%	Yes

Summative	Examination - MCQ	One 1 hour MCQ - End of Semester 2	1 hour	50%	No
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Legacy Code (if applicable)

CS-4004L

Reading List

To view Reading List, please go to [rebus:list](#).