

Module Details	
Module Title	Pathology
Module Code	BIS5015-B
Academic Year	2020/1
Credits	20
School	School of Chemistry and Biosciences
Subject Area	Biomedical Science
FHEQ Level	FHEQ Level 5
Pre-requisites	BIS4008-B, CLS4004-C, BM-1120D, CS-4001T
Co-requisites	N/A

Contact Hours	
Type	Hours
Online Lecture (Synchronous)	22
Practical Classes or Workshops	3 (workshop)
Practical Classes or Workshops	6 (practical class)
Directed Study	169

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2

Module Aims
<p>To promote in students an appreciation of: the pathogenic mechanisms (endogenous and exogenous) associated with the development, progress, manifestation and complications of disease in human beings; the range of diseases which affect particular organs/tissues and the accompanying changes in morphology and physiology which arise both locally and systemically. To understand the importance of digital pathology in diagnostic medicine in order to achieve even better, faster and cheaper diagnosis, prognosis and prediction of cancer and other important diseases. Provide an opportunity to further develop discipline specific and personal transferable skills.</p>

Outline Syllabus

Introduction to Pathology. Agents causing injury: a) endogenous injury: genetic injuries, ageing, immunological b) exogenous injury: physical agents including radiation, chemicals, nutrition and microbial agents. Effects of injury on cells and tissues: ultrastructural deterioration; alterations in cells detectable by light microscopy. Host response to injury: acute and chronic inflammation; tissue repair and wound healing. Disorders of development, differentiation, maturation and growth: hypertrophy and hyperplasia; atrophy, aplasia, dysplasia, metaplasia, neoplasia. Tumourigenesis and signalling processes in colorectal cancer; endocrine related cancer and signalling processes in breast cancer; prostate cancer and endocrine disruptors, male infertility.

Learning Outcomes

Outcome Number	Description
01	Describe and discuss the changes that occur following endogenous and exogenous cell and tissue injury and understand how these can change the pathology of the tissue.
02	Discuss the gross and ultrastructural morphological changes and explain how and why these occur during different disease states (HCPC standard 13).
03	Safely observe, record and interpret clinical and laboratory data (including cytological and histological evidence) relating to pathological changes arising from a variety of disease states; (HCPC standards 1, 3, 14, 10, 15).
04	Employ written communication skills to present scientific information in the form of written reports (HCPC standard 8).
05	Recognise the need for effective self-management of workload and resources (HCPC standard 1).

Learning, Teaching and Assessment Strategy

Information outlining the knowledge and understanding required for this module is delivered in lectures. Supplementary information will be provided via the virtual learning environment (VLE) to promote autonomous learning. This information is reinforced by practical and workshop sessions. The practical classes will develop Pathology techniques. The ability to identify diseased tissues and pathological changes will be formatively assessed during the practical classes and summatively in the laboratory test. In the workshops you will work in groups to research information, interpret data, solve problems and further develop your understanding. During directed study hours, students are expected to undertake reading to consolidate and expand on the content of formal taught sessions; research and prepare for assessments; revise material from formal taught sessions; and undertake specific elements of reading as directed. Private study will be facilitated and supported via the use of the VLE, which will provide coursework advice and feedback, and revision support. Reassessment of failed elements will be as per the initial method of assessment. Where reassessment of the practical element is required, students will be given a data set or an opportunity to complete the practical on an alternative occasion, whichever is more appropriate.

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Examination - Open Book	Online assessment covering practical aspects of the module	45 mins	40%
Summative	Examination - Open Book	Online assessment (50 MCQ questions and a choice of one from four essays) (LO 1-5)	1 hour 30 mins	60%

Reading List
To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

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