

CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	Cellular Pathology					
Module Code	USSJ6F-30-M	Level	M	Version	5	
Owning Faculty	Health and Life Sciences	Field	Applied Sciences			
Contributes towards	MSc Biomedical Science Compulsory for MSc Biomedical Science (Cellular Pathology)					
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard	
Pre-requisites			Co- requisites			
Excluded Combinations			Module Entry requirements			
Valid From	Sept 2012		Valid to	September 2018		
CAP Approval Date	30 th May 2012					

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: • discuss the effects of histological techniques on cells and tissues. (exam – A1 and/or coursework - B) • critically evaluate developing methodologies in cellular pathology. (exam – A1 and/or coursework - B) • critically evaluate the role of cellular pathology in the investigation of selected diseases. (exam – A1 and/or coursework - B) • discuss at an advanced level the pathology of selected disease processes. (exam – A1 and/or coursework - B) • discuss the ways in which tissues can be prepared for microscopic examination. (exam – A1 and/or coursework - B) • critically evaluate selected histological, histochemical, immunocytochemical and molecular techniques and their respective roles in the diagnostic process. (exam – A1 and/or coursework - B)
Syllabus Outline	• Cell and tissue stabilisation. Preparative processes in cellular pathology. Microscopy in cellular pathology including the role of the electron microscope. The theory of stain action. The fundamentals of histochemistry of carbohydrates, lipids and proteins including enzymes. Immunocytochemistry. Molecular biology in cellular pathology. • The cellular pathology of infection by selected micro-organisms. Cytopathology in diagnosis and as a screening process. • Systemic diseases e g Amyloidosis. • Systemic pathology of selected organs and tissues e g the urinary system, the central and peripheral nervous systems, breast, colon, prostate,, haemopoietic tissues and skeletal tissues.
Contact Hours/Scheduled Hours	The scheduled lectures and practicals comprise 44 hours. These are supplemented with 6 hours of M level tutorials. In addition the students have access to a library of CD-ROMS based on the subject area and which are located in 2KH1 and can be borrow via the technician in charge. There are also PC's in this laboratory dedicated to

	interactive learning.
Teaching and Learning Methods	The module will be delivered as a series of key-note lectures on topics in cellular pathology. The lectures will be designed to integrate the scientific aspects of cellular pathology with aspects of systemic pathology. The lecture sessions will provide a framework which will act as a focus for self learning by students. Seminars will be used to develop communication skills. Analytical skills of the students will be developed by the use of investigative practicals. The practicals will be undertaken by small groups working together in problem solving exercises. Students will also be encouraged to explore and directed towards appropriate web sites and laboratory based interactive CD-ROMs. Students on the module will also be required to attend a conference week at an appropriate time in the year (dependent on changes to the academic calendar). During this week a range of visiting lecturers will be brought in to give keynote lectures (for example based on their clinical practice) or research focused lectures that map to the syllabus content. The conference week will also give students an experience of what it is like to attend a scientific conference, with an intensive schedule of talks across the week to be attended.
Reading Strategy	At Masters level students are expected to demonstrate the ability to find information, assess its relevance and utilise it in their studies in an independent manner; however the programme team recognise that students entering the programme may be at different levels of the development of the skills required to undertake this successfully. Therefore module leaders will provide you with a strong starting point in terms of core readings and the lecture material will also give you a strong starting point. However it is in the area of further reading that you need to show the independence of skills and of knowledge development, so you will need to find the Further Readings yourself. However, the skills required to do this are covered during the early stages of the course, during induction week you will have a library induction session, in the Research Methods and Practical Skills module that you take during the first semester we will cover how to undertake a literature search and how to assess and use the material you find appropriately. The programme tutorials will provide opportunities for you to further develop these skills and to ask any questions that you have. Further support and guidance is available through the library which runs workshops that you can sign up to, and also has advice in its website. Module leaders will give you a clear indication of any essential reading, and point you towards the appropriate textbooks and journals for their discipline. This will usually be in the form of a reading list in the module guide; the indicative list on this module specification is as it states indicative as the relevant available books and journals can change regularly – and the module specification is a document written only once when a module is modified and can last for many years. So it is important that you refer to the reading list for your specific year group as the definitive document. All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely.
Indicative Reading List	Textbooks -current editions of • "Theory and Practice of Histological Techniques", Bancroft, J. D. & Gamble M. (Eds); (Churchill Livingstone) • "Pathology", Stevens, A. & Lowe, J. (Mosby) • "Human Histology", Stevens, A. and Lowe, J. (Mosby) • "Essential Cell Biology; An Introduction to the Molecular Biology of the Cell" Alberts, B. (Garland Science) • "Pathology", Rubin, E. & Farber, J. L. (Lippincott-Raven)

	• “Diagnostic Histopathology of Tumours”, Fletcher, C. D. M. (Churchill Livingstone) • “Laboratory histopathology”, Woods E. (Churchill Livingstone) • “Basic Pathology: An Introduction to the Mechanisms of Disease” Lakhani S.R. et al, (Arnold). Journals • Applied Immunohistochemistry and Molecular Morphology (e-journal) • Advances in Anatomic Pathology • American Journal of Clinical Pathology (not currently available in UWE libraries) • American Journal of Surgical Pathology • Current Diagnostic Pathology • European Journal of Cancer • Histopathology • Histochemical Journal • Human Pathology • Journal of Clinical Pathology • Journal of Histochemistry and Cytochemistry • Journal of Pathology • Modern Pathology • Molecular Pathology (electronic journal - http://biomed.niss.ac.uk) • Pathology International • The Lancet • Ultrastructural Pathology
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Part 3: Assessment			
Assessment Strategy	All specialist subject modules on the MSc BMS programme have a 50:50 weighting of course work to final exam. Coursework as decided by the module leader in line with programme assessment strategy.		
Identify final assessment component and element	A1		
% weighting between components A and B (Standard modules only)	A:	B:	
	50	50	
First Sit			
Component A (controlled conditions) Description of each element		Element weighting (as % of component)	
1. Examination (3 hours) – final assessment		100	
Component B Description of each element		Element weighting (as % of component)	
1. Extended Essay (3000 words)		50	
2. Poster presentation of laboratory practical		50	

Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) Description of each element	Element weighting (as % of component)
1. Examination (3 hours)	100
Component B Description of each element	Element weighting (as % of component)
1. Extended Essay (5000 words)	100
If a student is permitted an EXCEPTIONAL RETAKE of the module the assessment will be that indicated by the Module Description at the time that retake commences.	