Liverpool John Moores University

Title:	HISTOLOGY
Status:	Definitive
Code:	**5002FSBMOL** (101541)
Version Start Date:	01-08-2011
Owning School/Faculty:	Pharmacy & Biomolecular Sciences
Teaching School/Faculty:	Pharmacy & Biomolecular Sciences

Team	Leader
Lesley Walton	Y
Helen Burrell	

Academic Level:	FHEQ5	**Credit Value:**	12.00	**Total Delivered Hours:**	25.50
Total Learning Hours:	120	**Private Study:**	94		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	16.000
Practical	8.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Exam (60%)	60.0	1.50
Report	AS3	Complete questions in the module handbook (30%) & One assessed practical (10%)	40.0	

Aims

To provide students with an understanding of microscopic structures of tissues and organs in the context of cell activity. Students will also develop knowledge and skills in methods of tissue preparation.

Learning Outcomes

After completing the module the student should be able to:

1 Discuss methods of preparation of tissues and cells for histological and cytological examination.
2 Understand the role of staining in histology and cytology and describe methods for staining tissue components.
3 Prepare stained tissue sections for histological analysis.
4 Relate cell and tissue types to the physiological roles of major organ systems.
5 Recognise sections of tissues selected from the major organ systems.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

EXAM	1	2	4		
CW	1	2	3	4	5

Outline Syllabus

Tissue preparation: fixation, tissue processing, paraffin wax and resin embedding media, freezing.
Microtomy: for paraffin wax and resin embedded media; cryostat sectioning.
Histological staining: general tissue stains, stains to demonstrate connective tissues, carbohydrates, lipids and microorganisms.
Principles of Immunohistochemistry.
Functional Histology: basic tissue types: epithelia, connective tissues, muscle, nervous tissues.
Histology of major organ systems: skin and its appendages, circulatory system, respiratory tract, gastrointestinal tract, urinary tract, reproductive system, immune system, nervous system. Introduction to cytology.

Learning Activities

The module includes 16 hours of lectures and 8 of practicals. Coursework includes one assessed practical and to support the practicals, students are asked to research the answers to questions written into the practical schedule handbook.

References

Course Material	Book
Author	Cook, D. J.
Publishing Year	2006
Title	Cellular Pathology
Subtitle	An introduction to techniques and applications.

Edition	2nd edition.
Publisher	Scion Publishing Ltd.
ISBN	1904842305

Course Material	Book
Author	Kiernan, J. A.
Publishing Year	2001
Title	Histological and Histochemical Methods
Subtitle	Theory and Practice
Edition	3rd ed.
Publisher	Arnold Publishers
ISBN	0750649364

Course Material	Book
Author	Stevens A and Lowe J.
Publishing Year	2005
Title	Human Histology
Subtitle	
Edition	3rd
Publisher	Elsevier, Mosby
ISBN	0-8053-0655-2

Course Material	Book
Author	Young B, Lowe JS, Stevens A, Heath JW
Publishing Year	2006
Title	Wheater's Functional Histology
Subtitle	A text and colour atlas
Edition	5th
Publisher	Churchill Livingstone
ISBN	10:044306850X

Notes

This module introduces students to functional histology and cytology in the context of physiology and anatomy. Students will also develop practical skills in methods of tissue preparation for histological analysis.