

Liverpool John Moores University

Title: LABORATORY INVESTIGATION OF DISEASE 'A'
Status: Definitive
Code: **6200BMBMOL** (119444)
Version Start Date: 01-08-2011

Owning School/Faculty: Pharmacy & Biomolecular Sciences
Teaching School/Faculty: Pharmacy & Biomolecular Sciences

Team	Leader
Steven Crosby	Y
Helen Smalley	
Gordon Lowe	
Khalid Rahman	
Janice Harland	
Lesley Walton	

Academic Level: FHEQ6 **Credit Value:** 24.00 **Total Delivered Hours:** 35.00

Total Learning Hours: 240 **Private Study:** 205

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	25.000
Seminar	4.000
Tutorial	2.000
Workshop	2.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	3 essay topics from a choice of 6.	50.0	2.00
Report	AS2	literature review plan	10.0	
Report	AS3	case study	20.0	
Report	AS4	In class esaay	20.0	

Aims

To provide an integrated knowledge of human pathological processes and the laboratory methods used to study disease.

Learning Outcomes

After completing the module the student should be able to:

- 1 discuss the scientific basis of pathological processes associated with the cardiovascular, renal and respiratory systems.
- 2 justify the choice of investigative procedures used in studying human disease.
- 3 discuss the function and structure of the classical laboratory disciplines used in clinical pathology.
- 4 demonstrate the ability to apply critical thinking when presented with a case scenario.

Learning Outcomes of Assessments

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

EXAM	1	2	3
REPORT 1	2	4	
REPORT 2	1	2	3
In class essay	3		

Outline Syllabus

The syllabus will focus on the pathophysiology and laboratory investigations associated with the following systems: Blood/cardiovascular; Renal; Respiratory.

Blood/cardiovascular: Iron deficiency, disorders of platelets and neutrophils, coagulation and atherosclerosis.

Renal: Urine composition, classification of renal disease, laboratory investigations including urinalysis and proteinuria, infections of the urinary tract.

Respiratory: Characteristics of acid - base disorders (acidosis and alkalosis), laboratory investigations and respiratory tract infections.

Learning Activities

Material will be delivered through lectures of two types; those which focus on the pathophysiology and those which focus on laboratory investigations. Students will also undertake a group 'Case Study' which will be linked to tutorials and which will

involve problem solving and team work. The outcome of this group work will be presented as a seminar and written report.

References

Course Material	Book
Author	Underwood, J.C.E.
Publishing Year	2009
Title	General and Systematic Pathology.
Subtitle	
Edition	5TH ED
Publisher	Churchill Livingstone.
ISBN	0443068887.

Course Material	Book
Author	Young B, O'Dowd G, Stewart W.
Publishing Year	2010
Title	Wheater's Basic Pathology.
Subtitle	A TEXT, Atlas and Review of Histopathology.
Edition	5TH ED
Publisher	Churchill Livingstone.
ISBN	9780443067976

Course Material	Book
Author	Peakman M and Vergani D.
Publishing Year	2009
Title	Basic and Clinical Immunology.
Subtitle	
Edition	2ND ED
Publisher	Churchill Livingstone
ISBN	9780443100826

Course Material	Book
Author	Marshall, W.J and Bangert S K
Publishing Year	2008
Title	Clinical Chemistry.
Subtitle	
Edition	6TH ED
Publisher	Mosby
ISBN	9780723434559

Course Material	Book
Author	Engleberg N C.
Publishing Year	2006
Title	Schaechter's Mechanisms of Microbial Disease

Subtitle	
Edition	4TH ED
Publisher	Lippincott Williams and Wilkins
ISBN	0781753422

Course Material	Book
Author	Hoffbrand A V, Moss P A H and Petit J E.
Publishing Year	2007
Title	Essential Haematology
Subtitle	
Edition	5TH ED
Publisher	Blackwell Publishing
ISBN	9781405136495

Notes

This module, together with the linked module Laboratory Investigation of Disease B, will provide students with an understanding of the scientific basis of clinically important diseases and the laboratory methods used to study them at the molecular, cellular, tissue and organ level.