

## Liverpool John Moores University

Title: LABORATORY INVESTIGATION OF DISEASE B  
Status: Definitive  
Code: **6201BMBMOL** (119463)  
Version Start Date: 01-08-2011

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

| Team           | Leader |
|----------------|--------|
| Steven Crosby  | Y      |
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**Academic Level:** FHEQ6      **Credit Value:** 24.00      **Total Delivered Hours:** 32.00

**Total Learning Hours:** 240      **Private Study:** 208

### Delivery Options

Course typically offered: Semester 2

| Component | Contact Hours |
|-----------|---------------|
| Lecture   | 22.000        |
| 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 style questions from a choice of 6    | 60.0          | 2.00          |
| Report   | AS3               | assignment linked to lecture material.        | 10.0          |               |
| Report   | AS2               | case study linked to 2 tutorials (group work) | 30.0          |               |

## 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 gastrointestinal, hepatic and endocrine 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 |
| literature Review | 1 |   |   |
| case study        | 2 | 3 | 4 |

## Outline Syllabus

*The syllabus will focus on the pathophysiology and laboratory investigation of disorders associated with the liver, gastrointestinal tract and endocrine system.*

*Liver: Normal and abnormal hepatobiliary function; major liver function tests. Infectious diseases associated with jaundice.*

*Gastrointestinal tract: Microbiology of the gastrointestinal tract to include normal commensal flora and pathogens; histology; laboratory investigations.*

*Endocrine systems: Disorders of the hypothalamus, anterior pituitary gland, thyroid gland and adrenal gland. laboratory investigations including dynamic function tests.*

## Learning Activities

Material will be delivered through a combination of lectures, tutorials, seminars and workshops.

## References

|                        |                                   |
|------------------------|-----------------------------------|
| <b>Course Material</b> | Book                              |
| <b>Author</b>          | Underwood, J.C.E.                 |
| <b>Publishing Year</b> | 2004                              |
| <b>Title</b>           | General and Systematic Pathology. |
| <b>Subtitle</b>        |                                   |
| <b>Edition</b>         | 4th ed                            |
| <b>Publisher</b>       | Churchill Livingstone.            |
| <b>ISBN</b>            | 0-443073341.                      |

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|------------------------|---|
| <b>Course Material</b> | Book                                    |
| <b>Author</b>          | Emery, A.E., Mueller, R.F., Young, I.D. |
| <b>Publishing Year</b> | 2001                                    |
| <b>Title</b>           | Emery's Elements of Medical Genetics.   |
| <b>Subtitle</b>        |   |
| <b>Edition</b>         | 11th ed.                                |
| <b>Publisher</b>       | Churchill Livingstone.                  |
| <b>ISBN</b>            | 0-44307-125.                            |

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|------------------------|---------------------------------------|
| <b>Course Material</b> | Book                                  |
| <b>Author</b>          | Roitt, I.M., Brostoff, J., Male, D.K. |
| <b>Publishing Year</b> | 2001                                  |
| <b>Title</b>           | Immunology                            |
| <b>Subtitle</b>        |                                       |
| <b>Edition</b>         | 6th ed.                               |
| <b>Publisher</b>       | Mosby.                                |
| <b>ISBN</b>            | 0-7324-31892                          |

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|------------------------|--------------------------------|
| <b>Course Material</b> | Book                           |
| <b>Author</b>          | Marshall, W.J and bangert S K. |
| <b>Publishing Year</b> | 2006                           |
| <b>Title</b>           | Clinical Chemistry.            |
| <b>Subtitle</b>        |                                |
| <b>Edition</b>         | 5th ed                         |
| <b>Publisher</b>       | Elsevier                       |
| <b>ISBN</b>            | 0683076051                     |

|                        |   |
|------------------------|---|
| <b>Course Material</b> | Book                                    |
| <b>Author</b>          | Lewis S M, Bain B J, and Bates I        |
| <b>Publishing Year</b> | 2006                                    |
| <b>Title</b>           | Dacie and Lewis's Practical Haematology |
| <b>Subtitle</b>        |   |
| <b>Edition</b>         | 10th ed                                 |
| <b>Publisher</b>       | Elsevier                                |
| <b>ISBN</b>            | 0443066604                              |

## **Notes**

This module, together with the linked module Laboratory Investigation of Disease A, will provide students with an integrated 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.

We have adopted the long-established practice of dealing with general pathology (the principles of disease processes) before covering systematic pathology (specific diseases affecting individual body systems or organs). Each chapter in the systematic section begins with a brief account of the relevant normal structure and function of the organ or system, emphasising those aspects which are pertinent to a proper understanding of its pathology. After each major heading within a chapter, where it is considered appropriate, there is a summary panel listing key facts; these have two purposes: first General and Systematic Pathology, 4th ed. Edinburgh: Churchill Livingstone; 2004. 839 pages; ISBN-0-443-07334-1; price: \$73.95. The book contains numerous color illustrations, dealing predominantly with macroscopic and microscopic aspects of pathology. There are also useful diagrams and schematic drawings. Some data, such as incidence of various tumors, are presented in the form of graphs or annotated geographic maps. General and Systematic Pathology book. Read 3 reviews from the world's largest community for readers. This highly acclaimed textbook is written specifically... Let us know what's wrong with this preview of General and Systematic Pathology by James C.E. Underwood. Problem: It's the wrong book It's the wrong edition Other. Mokbel K.M. (1992) General and Systematic Pathology. In: MCQs in Applied Basic Sciences. Springer, Dordrecht. [https://doi.org/10.1007/978-94-011-2998-5\\_4](https://doi.org/10.1007/978-94-011-2998-5_4). This highly acclaimed textbook-written specifically for students of medicine and related health science subjects-progresses from a review of general pathology principles and disease mechanisms through detailed discussions of the pathologic entities associated with each organ system. Nearly 700 full-color photographs and pathology slides bring the content to life. The 4th Edition features extensive updates throughout to reflect the latest discoveries in cellular and molecular pathology, and offers a new web site that presents self-assessment material and illustrated clinical case studies. The s