Overview

Pathology: study of the essential nature of diseases and the structural and functional changes produced by them. (Pathos = suffering; ologos = study)

Pathology consists of two major subdivisions.

1. ANATOMIC PATHOLOGY (AP)
This covers surgical pathology, cytopathology, and autopsy pathology.

2. CLINICAL PATHOLOGY (CP)
This deals with analyses of body fluids and tissues and involves various disciplines of microbiology, serology, clinical chemistry, hematology, transfusion medicine, cytogenetics, etc.

General and systemic pathology (AP) and clinical laboratory sciences (CLS) will be taught throughout the year. General pathology emphasizes cellular and molecular biology, biochemistry, and immunology as they relate to the pathogenesis of disease. Systemic pathology deals with diseases of various “organs and systems”.

The clinical laboratory sciences (CLS) course deals with laboratory medicine involving lab testing.

It is that branch of clinical pathology that applies scientific laboratory methods relevant to patient care, health promotion and disease prevention.

The three pillars of evidence-based medicine are:

• A. What are the results?
• B. Are the results valid?
• C. How are the results applicable to patient care?

The CLS course will attempt to answer the above utilizing a clinical "case format". The significance and implications of lab testing, frequency of tests, turn-around-time (TAT), limitations of lab data, quality control and cost effectiveness will be discussed. The overall approach is to emphasize Lab Testing and how it relates to CLINICAL DIAGNOSIS AND MANAGEMENT.

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Textbooks and Materials

Recommended Textbooks
• *Robbins and Cotran Pathologic Basis of Disease*, 9th Edition by Kumar, Abbas, Fausto, and Aster, Saunders
• *Robbins Basic Pathology*, 9th Edition by Kumar, Abbas, Foster, Saunders

For the CLS course: - NEED NOT PURCHASE

1. Henry’s Clinical Diagnosis and Management by Laboratory Methods by McPherson and Pincus, 22nd edition, Saunders Publishing Company
2. Interpretation of Diagnostic Tests by Jacques Wallach, M.D., 8th edition, Lippincott, Williams, and Wilkins Publishers (cost about $65.00).

### Assessment

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Description</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Interim Exams</td>
<td>8 interim (part of integrated exams)</td>
<td>75%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>NBME shelf exam</td>
<td>25%</td>
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There will be eight interim (part of integrated exams) and one final examination. The interim examinations are generated within the department; the final examination is the NBME subject (shelf) examination in pathology supplied and scored by the National Board of Medical Examiners. Note that the NBME reports a percent correct score along with a scaled score. It is this score that will be used in the final weighting described below.

All the questions on the interim exams are multiple choice. There are approximately 80 questions on Foundations integrated examination 1, and roughly 4 questions per teaching/learning session on the other exams, for a total of about 315 MCQs. These numbers are subject to change as thought appropriate by the faculty. Questions on the laboratory sessions will be incorporated as pictures (images) into the examination when applicable. Each of the interim examinations will be weighted in proportion to the number of questions on that examination. Together the interim examinations will constitute 75%, and the final examination (shelf exam – 125 multiple choice questions) 25% of the total weighted score. Should a student fail to achieve a minimum passing level (MPL) for the examination series, the M-2 guidelines as determined by the Office of Student Affairs (including remedial work and a make-up examination) will be followed. The pathology department reserves the right to determine the type of make-up examination.

**NOTE: UI COM HAS IMPLEMENTED A “FLOATING MPL” SYSTEM DETAILS OF WHICH MAY BE OBTAINED FROM THE OFFICE OF ACADEMIC AFFAIRS. SUFFICE TO SAY THAT THE MPL WILL BE BETWEEN 60 – 65%.

**Please Note:**

1. Students undergoing remediation must take and pass the pathology make-up exam before being allowed further progress in their academic work.
2. The pathology make-up exam will be scheduled on Mon. April 25th 2016 (exact time, place, and type of exam. will be announced later).
3. Delays will not be permitted. Extenuating circumstances will be considered by the Pathology Department on a case by case basis.

### Goals and Objectives

By the end of the course, successful students will achieve the level of competence expected of a medical student completing the M2 year, studying for USMLE Step 1, and preparing for the M3 year and patient care responsibilities through the following broad goals and objectives. Specific learning objectives for large and small groups are included at the time of each section. Students will be expected to:

**Medical Knowledge:**

- Demonstrate an investigative and analytic approach to clinical and pathological problems. (See "introduction to pathology" in chapter 1 in the latest edition of Robbins and Cotran).
  - Demonstrate applied knowledge of Pathology, by describing the four aspects of the major disease processes covered in the course:
    - Cause (etiology)
    - Mechanisms of development (pathogenesis)
    - Functional consequences of the molecular and morphologic changes (clinical significance)
- Apply the basic and clinically supportive sciences appropriate to pathology (such as anatomy, biochemistry, histology/histopathology, cytogenetics, and physiology).
Patient Care:

- Gather and apply essential information from patient cases necessary to discuss clinicopathologic processes in Small Group Discussions.
- Develop a differential diagnosis when presented with clinical information or a histopathologic finding.
- Utilize laboratory studies to diagnose and monitor disease states and conditions.

Practice-based Learning and Improvement:

- Demonstrate the ability to support self-education (i.e., active learning).
  - Demonstrate the ability to find additional information when confronted with a question or unfamiliar term, particularly when preparing for case-based exercises.
  - Demonstrate the ability to appropriately use a medical dictionary and to use appropriate terminology.
- Use information technology to access online medical information.
- Facilitate the learning of peers, as appropriate.

Interpersonal and Communication Skills:

- Exhibit effective listening and communication skills to result in effective information exchange among peers.

Professionalism:

- Demonstrate respect, compassion, and integrity in interactions with peers, faculty, and support staff.
- Perform assigned in a dependable and responsible manner.
- Demonstrate commitment to ethical principles pertaining to the course.

Systems-based Practice:

- Demonstrate an understanding of how the practice of pathology fits within the larger context of medical practice.