

**Introduction to
Advanced Clinical Pathology
PA06P**

October 3, 2005

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Objectives

In general: what does the clinical laboratory do?

How to use the labs properly (e.g. indications, limitations, and interpretations of lab tests)

General

General I: Introduction to the course

General II: Introduction to Laboratory Medicine

General III: Pre-analytical testing

General IV: Predictive values/Normal ranges

Genetics

Genetics I-III: Molecular Diagnosis

Genetics IV: Human Chromosomes & Mechanisms of Disease

Genetics V: Molecular Cytogenetics - Expanding the resolution of conventional cytogenetic analysis

Genetics VI: Case Presentations

Clinical Chemistry

Chemistry I: Cardiac Markers

Chemistry II: Tumor Markers: Assays & interferences

**Chemistry III: B-Natriuretic Peptide:
Introduction of a new assay**

Chemistry IV: Toxicology

**Chemistry V: Protein electrophoresis:
Introduction and case studies**

Chemistry VI: Diabetes testing

Microbiology

Microbiology I: Introduction to virology testing
Microbiology II: HIV and Hepatitis testing
Microbiology III: The role of the clinical microbiology lab in detecting infectious diseases
Microbiology IV: Antimicrobial resistance: How can the lab help?
Microbiology V: Sexually transmitted diseases: Cases in the city
Microbiology VI: Respiratory infections: Test algorithms
Microbiology VII: Challenging mycobacterial and fungal infections
Microbiology VIII: Miscellaneous cases: Name that pathogen!

Hematology/Coagulation

Hematology I: Introduction to the Hematology/Coagulation section
Hematology II: Screening coagulation testing
Hematology III: Diagnosis of bleeding disorders: coagulation factors
Hematology IV: Diagnosis of bleeding disorders: platelets
Hematology V: Diagnosis of prothrombotic disorders
Hematology VI: Anticoagulation therapy
Hematology VII: Heme/Coag Case Studies
Hematology VIII: Hemoglobinopathy testing/transfusion in Sickle Cell Disease

Transfusion Medicine

Trans Med I: Introduction to Transfusion Medicine/Component Preparation
Trans Med II: Immunohematology
Trans Med III: Transfusion Reactions II (Hemolytic)
Trans Med IV: Transfusion Reactions II (Non-hemolytic)
Trans Med V: Component Therapy
Trans Med VI: Introduction to therapeutic apheresis
Trans Med VII: Introduction to stem cell transplantation
Trans Med VIII: Case studies (Group Sessions)

Faculty

Phyllis Della-Latta, Ph.D.	Microbiology
David Diuguid, M.D.	Heme/Coag
Dan Fink, M.D.	General & Chemistry
Joe Fink, M.D.	Transfusion Medicine
Richard Huard, Ph.D.	Microbiology
Jeffrey Jhang, M.D.	Heme/Coag & Transfusion Medicine
Hal Kaplan, M.D.	Transfusion Medicine
Larry Kaplan, Ph.D.	Chemistry
Brynn Levy, Ph.D.	Genetics: Cytogenetics
Mahesh Mansukhani, M.D.	Genetics: Molecular diagnosis
Mike Pesce, Ph.D.	Chemistry
Joseph Schwartz, M.D.	Transfusion Medicine
Ila Singh, M.D., Ph.D.	Microbiology
Steve Spitalnik, M.D.	Transfusion Medicine & General
Susan Whittier, Ph.D.	Microbiology
Fann Wu, Ph.D.	Microbiology

Attendance

YES

Excused absences for important reasons:
contact Elsie and/or Steve

Grading

Pass/Fail

Final examination: multiple choice, short essays
Questions from the lecture notes
Scheduled for Monday, October 31st

No papers, presentations, or quizzes

Notes and Readings

Course Manual:

Schedule

Participants: faculty, staff, and students

Lecture notes (and reprints, where appropriate)

Powerpoint lectures will be posted on the web

Textbook:

none

Questions?