

**SCHOOL OF \_\_\_\_\_**  
**DIVISION OF \_\_\_\_\_**

**COURSE TITLE:** Medical Laboratory Immunology

**COURSE NUMBER:** Medical Laboratory Science \_\_\_\_\_ Lecture  
Medical Laboratory Science \_\_\_\_\_ Laboratory

**DESCRIPTION:** Theory and application of clinical laboratory procedures used to evaluate the function of the immune system in health, autoimmune disease, immunodeficiency, bacterial and viral infections, leukemias, cancer, and other immunological disorders. Correlation of laboratory data with metabolic processes and disease states is explored.

**FACULTY:**

**COURSE WEB SITE:** **http:** \_\_\_\_\_

**REQUIRED TEXT:** Stevens CD. *Clinical Immunology & Serology*. 3<sup>rd</sup> edition. FA Davis, 2010.

**DATE/LOCATION:** Spring Semester  
Lecture: Monday and Wednesday 8:00 – 9:20  
  
Laboratory: Monday 9:35 – 12:10

**PREREQUISITES:** Admission to the \_\_\_\_\_ program or permission of faculty.  
\_\_\_\_\_ and \_\_\_\_\_ are to be taken concurrently for certificate students.

**COURSE OBJECTIVES:** Following completion of this course, the student will:

1. State the purpose and methodology of each laboratory test studied.
2. Identify reference ranges for all immunological parameters considered.
3. Determine appropriate laboratory tests to evaluate a patient case history.
4. Correlate patient laboratory data with clinical history and pathophysiology.
5. Accurately perform laboratory tests to assist in the diagnosis of immunopathology. (certification students only)

**COURSE EVALUATION for \_\_\_\_\_ : \_\_\_\_\_ Students**

Midterm 1	20%
Midterm 2	20%
Midterm 3	20%
Final	40%

Students are expected to be present for all scheduled examinations. (Make-up examinations will be granted only in cases of severe hardship, i.e. illness with physician statement). Make-up exams when granted, must be completed before the next scheduled class session. Exams may not be made-up unless the faculty member is notified by phone or e-mail in advance of the scheduled start time of the exam.

Weekly quiz grades are included with the respective midterm examination. Missed quizzes cannot be made up.

**\_\_\_\_\_ STUDENT REQUIREMENTS:**

All \_\_\_\_\_ students are required to research a \_\_\_\_\_ topic of interest and prepare a 30 minute oral presentation on recent advances in the selected topic as it applies to the clinical diagnosis, management, and treatment of human disease. All presentation materials (Power Point slides, handouts, etc.) are due one week prior to the scheduled oral presentation.

All \_\_\_\_\_ students will be required to write and present one case study on a \_\_\_\_\_ topics of choice with approval from \_\_\_\_\_. The case study is due no later than 5PM the last Friday of the semester. All case studies will include at a minimum, the following information:

- √ Patient History
- √ Table of Immunology and other related laboratory results as needed
- √ Discussion of the Case Study demonstrating a thorough understanding of the correlation of laboratory data with disease status

All case studies are to be typed, double spaced, and not to exceed 5 pages in length. Case studies should be suitable for publication.

**COURSE EVALUATION for \_\_\_\_\_: \_\_\_\_\_ Students**

Midterm 1	20%
Midterm 2	20%
Midterm 3	20%
Final	30%
Case Studies/Presentation	10%

Weekly quiz grades are included with the respective midterm examination.

**COURSE EVALUATION for \_\_\_\_\_:**

Class Projects	15%	Explained in class handout
Practical 1	30%	
Final Practical	40%	
Daily Laboratory Assignments and Attendance	15%	

The 15% Daily Laboratory Assignment includes class preparation and participation, test results obtained, and written reports.

Students are expected to attend each laboratory session. More than two absences results in failure of the course.

A	93-100	C+	77-79
A-	90-92	C	73-76
B+	87-89	C-	70-72
B	83-86	D	67-69
B-	80-82	E	66 and below

**ACADEMIC MISCONDUCT**

Academic misconduct is defined as any activity that compromises the academic integrity of \_\_\_\_\_ or subverts the educational process. Academic misconduct of any nature will not be tolerated and will be dealt with in accordance with \_\_\_\_\_ Academic Misconduct Procedures and Rules.

**STUDENTS WITH SPECIAL NEEDS**

Any student who feels she/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the \_\_\_\_\_ Services at \_\_\_\_\_ in room 150 \_\_\_\_\_ Hall to coordinate reasonable accommodations for students with documented disabilities.

**CLINICAL IMMUNOLOGY**  
**Medical \_\_\_\_\_**

<b>DATE</b>	<b>LECTURE</b>	<b>TOPIC</b>	<b>LABORATORY</b>	<b>TEXTBOOK</b>
Monday January 12		Overview of Immunology	Venipuncture Prepare Pool	p. 2-24; 39-44; 108-122
Wednesday January 14		Overview Antigen- Antibody Reactions		p. 123-151; 312-317
Monday January 19	Martin Luther King Day	No Class	No Class	
Wednesday January 21		Antigen-Antibody Reactions		
Monday January 26		Immunoglobulins Quiz 1	Microtiter Exercise Dilution Exercise	p.54-71
Wednesday January 28		Serum Proteins		
Monday February 2		Electrophoresis Complement	Cold Agglutinins Strep Testing: SureVue ASO Accustrep A	p.253-261
Wednesday February 4		Midterm 1 through Serum Proteins		
Monday February 9		Complement	SPE ELP Tutor	p. 85-105
Wednesday February 11		Infectious Mononucleosis Quiz 2		p.378-380; 391-394
Monday February 16		Autoimmunity	IFE	p. 152-165; 224-247
Wednesday February 18		Autoimmunity		
Monday February 23		T and B Cells Quiz 3	Lab Practical 1	p.25-38; 44-53; 72-84
Wednesday February 25		T and B Cells		
Monday March 2		EIA Syphilis	EBV – EIA SureVue Mono Status Mono	p. 186-199; 347-368
Wednesday March 4		Midterm 2 through T and B Cells		

Monday March 9		Pregnancy Hepatitis	ANA -- EIA SureVue RF ANA Tutor	p. 99-100; 163; 369-378
Wednesday March 11		Hepatitis		
<b>SPRING BREAK</b> _____				
Monday March 23		Infectious Disease Serology HIV and AIDS	Syphilis Testing RPR & VDRL Pregnancy Testing Quik Vue HCG	p. 380-390
Wednesday March 25		HIV and AIDS Quiz 4		p. 399-426
Monday March 30		Immunodeficiency, PMN Function	HIV Testing Serum Viscosity	p. 262-277
Wednesday April Fool's Day ☺		Hypersensitivity, Allergy Testing, Tumor Immunology		p.202-223; 278-309
Monday April 6		Leukemias and Lymphomas Quiz 5	Practice Practical Tour Immunology Lab	p. 248-252
Wednesday April 8		Cell Therapy Immunology		
Monday April 13		Student Case Studies Honors Project	Final Practical	
Wednesday April 15		Student Case Studies		
<b>NATIONAL MEDICAL LABORATORY WEEK April 19 - 25</b>				
Monday April 20		Review		
Wednesday April 22		Midterm 3		
Monday April 27		Immunology Review: Back to Basics		

**Syllabus\_2015 Redacted 3.18.15**