

**LANCASTER GENERAL COLLEGE FOR NURSING & HEALTH SCIENCES
CLINICAL LABORATORY SCIENCE PROGRAM**

**SYLLABUS
Semester 1 - 2006**

- I. Title: **CLS 141 Clinical Immunology/Serology**
- II. Course Description: This course covers the fundamentals of Immunology and Serological Methods. The series is divided into three units. The Units include:
1. Basic Immunology – a review of the humoral and cellular response, role of complement, mechanisms of tissue injury, the HLA system, and immunodeficiency diseases
 2. Serological Reactions and Infectious Disease serology – methods for detecting antigen-antibody reactions in the lab including Syphilis serology and other related diseases
 3. Autoimmune Diseases – covers mechanisms of autoimmunity as well as specific tests used as an aid in diagnosis; Viral, Fungal, and Parasitic Serology – covers diagnosis of AIDS, hepatitis, and other diseases caused by these organisms
- III. Prerequisite: Admission to Clinical Laboratory Science program
- IV. Placement: Semester 1
- V. Time Allotment: Theory: 32 hours
Lab: 21 hours
- VI. Faculty: Wendy S. Gayle, MS, MT(ASCP)
- VII. Credits: Three (3)
- VIII. Evaluation: **THEORY GRADE**
- | <u>Instrument</u> | <u>Weight</u> |
|---------------------|---------------|
| Unit Exams | 75% |
| Assignments/quizzes | 15% |
| Presentation | 10% |
- A grade of 74% is required to pass the course.
- IX. Textbook: Stevens, Christine. *Clinical Immunology and Serology*, 2nd edition, F.A.Davis, 2003
- X. References: **Textbooks:**
Sheehan, Catherine. *Clinical Immunology: Principles and Laboratory Diagnosis*, Lippincott, 2nd edition, 1997

Videotapes/DVDs:

Your Immune System

Living Body Series: Accident (26 min) & Internal Defenses (26 min)

Immune System Disorders

Riddle of the Joints

Additional Educational Material:

Tech/Check Sample Case Study Modules

Selected Immunology Teleconferences

- XI. Course Objectives: By the conclusion of the course, the student must
1. Describe how the humoral and cellular immune systems function to protect from disease.
 2. Describe the function and role of complement in immunity and disease.
 3. Describe the role immunology plays in transplantation & tumor rejection.
 4. Describe the types of diseases which occur in states of immunodeficiency and autoimmunity.
 5. Describe the importance of serological testing in diagnosis of autoimmune disease, giving examples of specific tests.
 6. Describe the currently used tests for syphilis, comparing their usefulness at various stages of the disease.
 7. Give the principles and relative sensitivities of common immunology testing methods.
 8. Describe the types and usefulness of serological testing used in bacterial, fungal, parasitic, and viral infectious diseases.
 9. Compare and contrast the mechanisms of tissue injury in immunological diseases.
 10. Interpret and give clinical significance of abnormal results for clinical serology procedures.
- XII. School Policies: Students are held accountable for all policies in the Student Handbook and any revisions made to those policies during the academic year.
- XIII. Class: A. Importance of Attending Class
- Healthcare education comprises more than just private reading and passing of exams. Students shall recognize that active and informed participation in class is essential to the development of intellectual abilities and scholarly growth. Students must also recognize the importance, for both the present and future, of achieving an academic record that reflects their intellectual ability. Such records are seldom achieved without regular attendance and participation in class activities. Attendance will be taken.

B. Student Responsibility for Missed Material

Students are responsible for all material presented and announcements made in class, regardless of attendance. It is the student's responsibility to obtain materials and assignments if absent

C. Unit Examinations

Examinations should only be missed in extenuating circumstances with approval of the instructor. A student who misses an exam will be required to make up the exam. Contact the appropriate instructor prior to the next lecture day to make arrangements to take the exam.

A student who misses an exam, without instructor approval, will have ten percent (10%) deducted from the grade achieved on the exam. Example: The exam is worth sixty (60) points, the student takes the exam and achieves a grade of 52/60. The score of 52 is then decreased by 10% or five points; thus, the grade on the exam will be 47/60. An alternate exam may be given for the makeup exam.

D. Class Behavior

Once class has started, the instructor has the prerogative not to admit students into lecture. Students will be dismissed from class for any inappropriate behavior.

XIV. Other:

Academic Dishonesty and Plagiarism

Academic dishonesty violates the spirit and purpose of an academic community and is therefore subject to disciplinary action. Academic dishonesty includes cheating on exams and unauthorized duplicate submission of work.

Plagiarism is an act of academic dishonesty. Any work submitted that is not your own is plagiarism. In preparing assignments, you must acknowledge in writing any use of outside sources or any assistance you received.

If an instructor believes a student has committed an act of academic dishonesty or has plagiarized material, the instructor will award a failing grade for that assignment. If the occurrence is during an exam, the student will receive a zero for that portion of their grade and must leave the room.

If the student disagrees with this decision, the student may follow the grievance procedure.