

## Master Syllabus

### CLT 2510 - Immunology/Serology/Immunohematology

**Division:** Health Sciences

**Department:** Clinical Laboratory Technology

**Credit Hour Total:** 2.0

**Lecture Hrs:** 1.0 **Lab Hrs:** 4.0

**Prerequisite(s):** CLT 2410

**Other Prerequisite(s):** AND Restricted to Majors

**Date Revised:** May 2013

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#### Course Description:

This course is an introduction to the principles of immunology, covering the broad areas of the body's defense mechanisms, the nature of the mammalian immune system and the immune response, and discusses immunological disease states of auto-immunity, tumor immunology, transplant immunology, immunodeficiency, and the theory behind immunoassays used in the laboratory environment. One classroom, two lab hours per week.

#### General Education Outcomes:

- Critical Thinking/Problem Solving Competency

#### Course Outcomes:

##### Antibody Structure and Function

Define Antibody structure and function

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% or better on given assessment tool

##### Immune System in Health and Disease

Describe immune system in health and disease

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% or better on given assessment tool

##### Immunity

Define natural vs. adaptive immunity

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% or better on given assessment tool

##### Primary and Secondary Immune Responses

Describe primary and secondary immune responses

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% or better on given assessment tool

##### Receptor-mediated Triggering of Cellular Response

Identify complement, cytokines, receptor-mediated triggering of cellular responses via second messengers

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% or better on given assessment tool

##### Types and Functions of Lymphatic System

Describe clonal selection, types and functions of white blood cells, T and B lymphocytes and their recirculation via the lymphatic system

**Assessment Method:** Locally developed exams  
**Performance Criteria:**

70% or better on given assessment tool

#### Outline:

Natural vs. adaptive immunity  
Clonal selection, types and functions of white blood cells  
T and B lymphocytes and their recirculation via the lymphatic system  
Antibody structure and function  
Primary and secondary immune responses  
Complement, cytokines, receptor-mediated triggering of cellular responses via second messengers  
Immune system in health and disease