

Course Competency

MLT 1500 CLINICAL IMMUNOLOGY/SEROLOGY

Course Description

Clinical Immunology is concerned with the investigation, diagnosis, and management of disorders involving the immune system, with an emphasis on allergic, autoimmune, and immunodeficiency disorders.

Course Competency	Learning Outcomes
<p>Competency 1: The student will demonstrate understanding of Immune Mechanisms by:</p>	<ol style="list-style-type: none"> 1. Critical thinking 2. Computer / Technology Usage
<ol style="list-style-type: none"> 1. Comprehending the laboratory correlation of antigens, including superantigens and determinants 2. Comprehending the laboratory correlation of antigen presentation and histocompatibility 3. Comprehending the laboratory correlation of Immunoregulation and tolerance 4. Comprehending the laboratory correlation of Immunogenetics and molecular biology 5. Comprehending the laboratory correlation of Immunoglobulins (Ig) 	
<p>Competency 2: The student will demonstrate knowledge of identification and principles involved with Immediate type hypersensitivity (IgE-mediated) reactions by:</p>	<ol style="list-style-type: none"> 1. Critical thinking 2. Computer / Technology Usage
<ol style="list-style-type: none"> 1. Comprehending of IgG, IgA, IgM, and Fc receptor-mediated reactions, including antibody-dependent cellular cytotoxicity, immune complex, and opsonization 2. Identifying T and B cell ligand-receptor interactions, signal transduction, cell activation, and energy 3. Identifying Cytokines and chemokines, and their receptors 	

<p>4. Identifying with examples delayed-type hypersensitivity and cell-mediated immunity and its relationship to Innate immunity</p>	
<p>Competency 3: The student will demonstrate knowledge of cells involved in immune responses, including differentiation, origin, reception, interactions and secretion by:</p>	<ol style="list-style-type: none"> 1. Critical thinking 2. Computer / Technology Usage
<ol style="list-style-type: none"> 1. Applying knowledge of Lymphocytes 2. Recognizing T cells and receptors and B cells and receptors 3. Describing the role of other lymphocytes, including natural killer (NK), natural killer T cells (NKT), and innate lymphocyte cells 4. Explaining the role of Antigen-presenting cells, including monocytes, macrophages, and dendritic cells, Mast cells, Basophils, Eosinophils, Neutrophils, and platelets 	
<p>Competency 4: The student will demonstrate knowledge of advances in the area of Immunology and its principles to make appropriate and effective on the job professional decisions by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Information Literacy 3. Cultural / Global Perspective 4. Computer / Technology Usage
<ol style="list-style-type: none"> 1. Exploring areas in Transplant immunology 2. Comprehending the newer principles involved in the Immunology of reproduction and pregnancy 3. Researching areas in Neonatal immunology 	

Updated: FALL TERM 2022