

ST 113 Pathophysiology of the Surgical Patient

Credit Hours: 4**Scheduled hours per week:**

Lecture: 4

Catalog Course Description:

This course will provide students an introduction to disease and tumors. Surgically treatable diseases and disorders are emphasized. This course will review of basic medical microbiology; topics include types of microorganisms, microbial growth and metabolism, control of microbial populations, microbial resistance, and principles of infection and immunity.

Prerequisites: ST 100, ST 102, BIOL 109 & BIOL 109L, HS 153**Co-requisites: ST 110, ENGL 101, MATH 120 or higher****Course learning Outcomes:**

1. Employ the principles of aseptic and sterile technique to provide a safe environment for the pathophysiology patient.
2. Distinguish between healthy anatomy or physiology and pathophysiology in the surgical patient.
3. Relate the pathophysiology of the patient when discussing problem-solving strategies during surgical procedures.
4. Apply terminology associated with pathophysiology when providing care to the surgical patient.
5. Recall the AST Code of Ethics when administering care to the pathophysiology patient.
6. Describe methods of control of bacterial populations and infections.
7. Describe the normal microbial flora of the body.
8. Apply biological relationships to specific states of health and disease.
9. Describe nonspecific host defense mechanisms.
10. Explain basic principles of immunology.
11. Describe microbial disease processes involving the skin and eye.
12. Describe microbial disease processes involving the central nervous system.
13. Describe microbial disease processes involving cardiovascular and lymphatic systems.
14. Describe microbial disease processes involving the digestive system.

Topics to be studied:

1. Pathophysiology
 - a. Introduction to disease
 - b. Tumors
 - c. Fluid and hemodynamic disorders
 - d. Inflammation and infection
 - e. Surgically treatable diseases and disorders
2. Microbiology
 - a. Cell Structure and function
 - b. Metabolism
 - c. Microbial growth
 - d. Prokaryotes - Eukaryotic Microbes
 - e. Viruses
 - f. Diseases and immunity
 - g. Pathogenicity
 - h. Antimicrobial drugs

Relationship of course to program outcomes:

The course learning objectives for ST 113 are congruent with, and derived from, the five (5) program outcomes designated by the Surgical Technology Program.

Special projects or requirements of the course: None.

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