

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: EMS 205

Credits: 4

Course Title: Advanced Pathophysiology

Course Description: Focuses on the pathological processes of disease with emphasis on the anatomical and physiological alterations of the human body by systems. Includes diagnosis and management appropriate to the advanced health care provider in and out of the hospital environment. Provides an understanding of the fundamental interaction of normal body structure and function. Lecture 4 hours per week.

General Course Purpose: The course is designed to provide a basic knowledge of human anatomy and physiology and a basic understanding of the diagnosis, monitoring, and management of the common pathologies and injuries related to each body system.

Course Prerequisites/Co-requisites:

There are no course prerequisites or corequisites.

Course Objectives:

Upon completing the course, the student will be able to

- a. Define anatomy, physiology, and pathophysiology;
- b. Describe and define the different types of cells and tissues;
- c. Describe and differentiate between the mechanisms of disease;
- d. Describe all body systems and their functions under normal and diseased states; and
- e. Define and understand the basis of genetics and its relation to disease.

Major Topics to Be Included:

- a. Human body
- b. Cells and tissues
- c. Skin
- d. Skeletal System
- e. Muscular System
- f. Nervous System
- g. Special Senses
- h. Endocrine System
- i. Blood
- j. Cardiovascular System
- k. Lymphatic System
- l. Respiratory System
- m. Digestive System
- n. Urinary System
- o. Reproductive System
- p. Genetics
- q. Microbiology

Effective Date of Course Content Summary: February 9, 2009