

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

Course Prefix and Number: BIO 142

Credits: 4

Course Title: Human Anatomy and Physiology II

Course Description (as it should appear in the catalog)

Integrates anatomy and physiology of cells, tissues, organs, and systems of the human body. Integrates concepts of chemistry, physics, and pathology. Part II of II. Pre-requisite: BIO 141. Lecture 3 hours. Laboratory 3 hours. Total: 6 contact hours per week.

General Course Purpose

To prepare health science and beginning science students with a basic understanding of anatomy and physiology through the lecture and practical (laboratory) approach. The course is primarily designed for health science students and science majors.

Course Objectives (Each item should complete the following sentence.)

Upon completing the course, the student will be able to:

- demonstrate scientific writing and speaking.
- identify and describe the pathogenicity and control of microbes, as well as the Gram stain procedure.
- discuss the anatomy of major endocrine organs, their secretions, and the functions of the hormones that are secreted in addition to selected endocrine disorders.
- identify the anatomy and physiology of the circulatory system, to include the blood, heart, and blood vessels.
- describe the anatomy and physiology of the respiratory system
- discuss the anatomy and physiology of the urinary system, to include fluid, electrolyte, and acid-base balance.
- describe and analyze the anatomy and physiology of the digestive system, to include nutrition and metabolism.
- identify and describe the anatomy and physiology of the reproductive system, to include human development

Major Topics to be Included

- Histology
- Human Systems Analysis (e.g. circulatory, digestive, respiratory, nervous, musculoskeletal, endocrine, reproductive)
- Pathological Concepts and Clinical Applications to Human Systems
- Disease Etiology

Effective Date of Course Content Summary (Month, Date Year): August 16, 2011