

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY BIO 145 – HUMAN ANATOMY AND PHYSIOLOGY (4 CR.)

Course Description

Surveys human anatomy and physiology. Covers basic chemical concepts, cellular physiology, anatomy, and physiology of human organ systems. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose

The purpose of BIO 145 is to provide students with an overview of structures and functions of major organ systems and how they contribute to homeostasis.

Course Prerequisites/Corequisites

None.

Course Objectives

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

Introduction to A&P

- Define and use appropriate terminology to effectively communicate information related to anatomy and physiology.
- Describe the principle of homeostasis and the use of feedback loops to control physiological systems in the human body.
- Describe the basic chemical architecture and processes of the human body.
- Describe the components and processes of a typical animal cell.
- List the four tissue types and state the function and location of each.

Organ Systems

Identify the anatomy and describe the physiology of the:

- Integumentary system
- Skeletal system
- Muscular system
- Nervous system
- Endocrine system
- Cardiovascular system and blood
- Lymphatic system and immunity
- Respiratory system
- Digestive system
- Urinary system
- Fluid, electrolyte, and acid-base balance
- Male and female reproductive systems

Major Topics to be Included

- **Introduction to A&P**
- **Organ Systems**