

# HLSC – HEALTH SCIENCES

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## HLSC 104

### Applied Human Anatomy

**3 Credits Weekly (3-0-0)**

Students examine the anatomical structures of the human body. The anatomical terms of reference and basic histology are referred to as each of the body systems are studied. This course does not transfer to the Nursing Programs.

## HLSC 105

### Applied Human Physiology

**6 Credits Weekly (6-0-0)**

Students examine the function and regulation of the human body including neural and hormonal homeostatic control mechanisms. The musculoskeletal, circulatory, respiratory, digestive, urinary, immune, reproductive, and endocrine organ systems are discussed. The course does not transfer to the Nursing Programs.

## HLSC 120

### Human Anatomy

**3 Credits Weekly (3-0-0)**

This is an introductory course in human anatomy for the health sciences. It provides students the opportunity to gain anatomical knowledge of human tissues, organs, and major organ systems in terms of its structures, the related anatomical terminology and how these structures relate to function.

*Prerequisites: Biology 30.*

## HLSC 124

### Microbiology for Health Professionals

**3 Credits Weekly (3-0-0)**

Principles of microbiology and classification of microbes are introduced. The focus is on the nature, reproduction and distribution of common microorganisms, and the epidemiology and role of pathogenic organisms in infectious diseases. Human immunology, antimicrobial strategies and health systems are integrated into discussion of the prevention and control of infectious diseases in humans. Note: Only one of HLSC 124 or MMID 133 may be taken for credit.

*Prerequisite: Biology 30.*

## HLSC 126

### Human Physiology I

**3 Credits Weekly (3-0-0)**

Normal function and components of the human body are addressed, with an emphasis on cellular function, homeostasis, hormone release and regulation. The organizing framework is based on concepts of homeostasis and regulatory mechanisms which enhance integrated functioning. Structure and function of the neurological and cardiovascular systems are examined. Normal physiological changes associated with growth and development, and aging are considered.

*Prerequisites: Science 30 or Chemistry 30, and Biology 30.*

## HLSC 128

### Human Physiology II

**3 Credits Weekly (3-0-0)**

Normal function and maintenance of homeostasis in the human body are addressed. Emphasis is placed on integrative function of the major systems; cardiovascular, respiratory, hematological, immune/inflammatory, digestive, reproductive, endocrine and urinary systems. Normal physiological changes associated with pregnancy, growth and development, and aging are discussed. Note: Only one of HLSC 128, HLSC 122, NURS 108 or PHSL 162 may be taken for credit.

*Prerequisites: Minimum grade of C- in HLSC 120 and HLSC 126.*

## HLSC 220

### Pharmacotherapeutics for Health Professionals

**3 Credits Weekly (3-0-0)**

Concepts of pharmacology are explored, with an emphasis on pharmacotherapeutics within health and illness experiences. Aspects of human physiology, growth, development and aging are integrated.

Indications for use, mechanisms of action, therapeutic and adverse effects, assessment and patient/client education are explored in relation to major medication classifications and common medications.

Professional responsibilities for provision of safe and optimal pharmacotherapy are examined. Political, legal, ethical, social and economic factors are discussed with regard to medications and health.

Recognition of professional responsibilities and limitations are emphasized with regard to medication administration and evaluation.

Note: it is strongly recommended that HLSC 222 - Alterations in Health Across the Lifespan - be completed before or taken concurrently with this course.

*Prerequisites: Minimum grade of C- in HLSC 124 and HLSC 128.*

## HLSC 222

### Pathophysiology Across the Lifespan

**3 Credits Weekly (3-0-0)**

This course builds on previous knowledge of microbiology, human anatomy and physiology by exploring the holistic experience of disease. Processes that cause disease across the lifespan are examined as related to the structure and function of human cells, tissues, organs, and body systems. Select acute and chronic diseases of each body system are examined in depth related to epidemiology, etiological processes, risk factors, pathogenesis, and clinical manifestations. Specific prefixes and suffixes are explained throughout the course in order for students to gain fluency in disease processes.

*Prerequisites: Minimum grade of C- in HLSC 124 and HLSC 128.*