

HLSC – HEALTH SCIENCES

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 for Healthcare Professionals

3 Credits Weekly (3-0-0)

This is an introductory course in human anatomy for the health sciences. Foundational anatomical knowledge of human tissues, organs, and major organ systems is explored. Anatomical structures, functions, and terminology are learned alongside the interconnectedness and interrelationships of body systems.

Prerequisites: Biology 30.

HLSC 124

Microbiology for Healthcare Professionals

3 Credits Weekly (3-0-0)

Principles of microbiology and classification of microbes are introduced. The nature, reproduction, and distribution of common microorganisms, as well as the role of pathogenic organisms in infectious diseases, are explored from a multidisciplinary approach. Antimicrobial strategies and health systems are examined in relation to how infectious diseases in humans are prevented and controlled. Note: Only one of HLSC 124 or MMID 133 may be taken for credit.

Prerequisite: Biology 30.

HLSC 126

Human Physiology I for Healthcare Professionals

3 Credits Weekly (3-0-0)

Normal physiological functions of the body's organ systems are examined, emphasizing the interconnectedness of cellular function, homeostasis, hormone release, and regulation. The organizing framework of the course focuses on concepts of homeostasis and regulatory mechanisms, which enhance knowledge of the integrated function of human health. The functions of the cellular, muscular, neurological, and cardiovascular body systems are examined, along with the interrelationships between them.

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

HLSC 128

Human Physiology II for Healthcare Professionals

3 Credits Weekly (3-0-0)

Maintenance of homeostasis in the human body is addressed to build upon normal physiological functions. Emphasis is placed on the connected function of the cardiovascular, respiratory, hematological, immune/inflammatory, digestive, reproductive, endocrine, and urinary systems. Normal physiological changes associated with pregnancy, growth and development, and aging are explored. Learners use a holistic approach to analyze the functional interconnectedness and interrelationships among all body systems. 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 Healthcare 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 and development, as well as impacts of aging, are integrated. Indications for use, mechanisms of action, therapeutic and adverse effects, assessment, and patient/client education specific to pharmacotherapeutics are explored in relation to major medication classifications and common medications. Legal, ethical, social, and economic factors are discussed with regard to medications and their impact on health. Professional responsibilities for the provision of safe and optimal pharmacotherapy are emphasized.

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.