

Reading Hospital School of Health Sciences

Surgical Technology Program

Course Descriptions

BIO 107 / Anatomy and Physiology I [3 credits]

Homeostatic mechanisms of the human body with emphasis on structure and function are studied. Gross and microscopic structures are correlated with function of cells, tissues, organs and systems of the body. Major topics include: skeletal, muscular and nervous systems.

COREQUISTE: BIO 117

BIO 108 / Anatomy and Physiology II [3 credits]

Emphasis is on structure and function of endocrine, cardiovascular, respiratory, lymphatic, digestive, urinary and reproductive systems. Gross and microscopic structures are correlated with functions of cells, tissues, organs and systems of the body. PREREQUISITES: BIO 107/117,

COREQUISTE: BIO 118

BIO 117 / Human Anatomy and Physiology Lab I [1 credit]

Experimental approach to the study of human anatomy and physiology is used to reinforce lecture concepts. The exercises present the core elements of the subject matter in a hands-on manner. The labs are presented in the same time period the material is being discussed in lecture. COREQUISITE: BIO 107

BIO 118 / Human Anatomy and Physiology Lab II [1 credit]

Experimental approach to the study of human anatomy and physiology is used to reinforce lecture concepts. The exercises present the core elements of the subject matter in a hands-on manner. The labs are presented in the same time period the material is being discussed in lecture. PREREQUISITES: BIO 107/117, COREQUISITE: BIO 108

BIO 220 / Clinical Microbiology [4 credits]

Study of the morphological and physiological nature of microorganisms and their relationship to humans in both the normal and deceased states. Emphasis on bacteriological techniques such as cultivation, staining, identification, and other techniques important in a clinical setting.

Integrates laboratory and classroom work.

COM 101 / Composition and Research [3 credits]

Core writing requirement, reviews fundamental principles of rhetoric, grammar, punctuation and spelling. Requirements include a research paper using MLA documentation guidelines and several expository papers.

LAE 1 / Liberal Arts Elective 1 [3 credits]

The Liberal Arts Elective 1 requirement can be satisfied by successful completion of COM 213 or a similar COM course. Historically, COM 213 has been offered in the curricula on RHSHS campus, but the school reserves the right to provide a COM substitution. Students must receive approval from both RHSHS and AU for transfer credit.

COM 213/ Interpersonal Communication

An introductory survey of basic theories, models, and practices of interpersonal communication. Students learn interpersonal communication principles, sharpen awareness of own and others' personal communication habits, and ultimately improve interpersonal communication skills.

***note: TWO communication courses (COM) are required for the Alvernia University associate degree**

LAE 2 / Liberal Arts Elective 2 [3 credits]

The Liberal Arts Elective 2 requirement can be satisfied by successful completion of MUS 220 or a similar creative expressions course. Historically, MUS 220 has been offered in the curricula on RHSHS campus, but the school reserves the right to provide a course substitution. Students must receive approval from both RHSHS and AU for transfer credit.

MUS 220/ Music and Health

Basic music course in the theories and techniques of music as an agent of wellness. Explores music therapy, recent research, and healing practices of non-Western cultures as they relate to music. Especially recommended for students planning a career in healthcare or human services.

No prerequisites, no prior musical experience or performance required.

PHI 105 / Introduction to Philosophy [3 credits]

Historical introduction to fundamental problems and methods of philosophy based on readings in ancient, medieval and modern literature.

PSY 101 / Introductory Psychology [3 credits]

Introduction to major concepts and findings in psychology with emphasis on basic processes underlying human behavior.

THE 210 / Medical Moral Theology [3 credits]

Investigation of moral problems, which can arise in the area of bioethics. Introductory survey of the basic Christian principles of morality is followed by treatment of various medical moral situations. A natural law methodology is applied throughout the course.

****DUALY ENROLLED STUDENTS:** The course titled "THE 210" satisfies a Medical Ethics requirement for the RSHS ST diploma, and also satisfies the Philosophy/Theology requirement for the Alvernia University Associate of Science degree. Students may elect (prior to enrollment in the program) to take an equivalent Medical Ethics course in place of THE 210 to meet the RSHS program requirement. However, additional coursework may be required to also meet the AU Philosophy/Theology requirement. It is highly suggested that the student meet with the RSHS admissions staff to verify course transferability prior to enrolling in a substitute course.

ST 100 / Foundations of Surgical Technology [9 credits]

This course will provide the student with detailed instruction in a variety of subjects related to the study of Surgical Technology. These include: orientation to and history of surgical technology, microbiology, surgical environment and safety standards, disinfection and sterilization, aseptic technique, moral, legal, and ethical responsibilities, documentation, surgical counts, body mechanics, surgical terminology and communication skills, wound healing and wound closure, surgical instrumentation and equipment. This course will also include basic computer skills, electricity and electro-surgery, robotics, and the use of lasers in surgery. The student will learn basic draping skills, scrubbing, gowning, and gloving and the importance of hospital organization and the surgical team. **PREREQUISITES:** BIO 108/118, BIO 220, COM 101, LAE 2, PHI 105, PSY 101, THE 210; **COREQUISTE:** ST 101

ST 101 / Introduction to Patient Care [4 credits]

This course provides the student with a comprehensive overview of perioperative patient care including the variance in patient populations & biosocial needs, patient preparation and skin preparation, patient positioning, vital signs, urinary catheterization, the use of surgical drains and dressings, care of surgical specimens, thermoregulatory devices, and pharmacology and anesthesia including the metric system and conversions. All-hazards preparation will also be discussed. PREREQUISITES: BIO 108/118, BIO 220, COM 101, LAE 2, PHI 105, PSY 101, THE 210; COREQUISTE: ST 100

ST 200 / Surgical Specialties I [15 credits]

This course will provide the student with information and experience related to surgical specialties including the pathophysiology, instrumentation and supplies, patient preparation, procedure descriptions and progression, complications, and specialty medications. The specialty services covered in this course include general, gynecologic, ophthalmic, orthopedic, urologic surgery, cardiovascular-thoracic surgery, neurologic, otolaryngologic, and plastic/maxillofacial surgery. In addition, the student will have the opportunity, under guidance from an Instructor or Preceptor, to first and second scrub and circulate for a variety of surgical procedures during clinical practice in all of the surgical specialties. PREREQUISITES: ST 100, ST 101, LAE 1

ST 201 / Surgical Specialties II [16 credits]

This course will build upon skills and provide in-depth information, simulated surgical experience, and clinical experience related to the surgical specialties. Under supervision, the student serves as the first and second scrub and circulates for a variety of surgical procedures in all specialties. In addition, didactic content is provided to assist the student to prepare for the surgical technology certification exam and transition into employment in the operating suite. PREREQUISITES: ST 200