

BIOMEDICAL AND HEALTH SCIENCES (BHSC)

Courses

BHSC 034. Human Cell Biology. 0 or 4 Credits.

Lecture and laboratory experiences about molecular and cellular structure, function and physiology using human cells as the model.

BHSC 090. Internship. 1-3 Credits.

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

BHSC 092. Independent Study. 1-18 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

BHSC 096. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

BHSC 098. Intro to Scientific Writing. 3 Credits.

Introduction to the principles and practices of research and writing in the biomedical and health sciences. Using scientific data and literature as a foundation, students will write in multiple genres through regular assignments applicable to future course work and health science professions. Pre/Co-requisites: ENGS 001 or a TAP course or equivalent or Instructor permission; Radiation Medical Science, Medical Laboratory Sciences, and Health Sciences majors only.

BHSC 140. Radiation Science. 4 Credits.

Provides a broad based understanding of the fundamentals of radiation science including the ways in which radiation is produced and utilized, the principles of radioactive decay, radiation exposure, absorbed dose, shielding and detection of radiation. Prerequisite: MATH 019 or MATH 021.

BHSC 141. Advanced Radiation Science. 3 Credits.

Lecture and laboratory experiences to enhance the understanding and application of the principles of radioactive decay, radiation exposure, absorbed dose, shielding and detection of radiation. Prerequisite: MATH 009, MATH 010, MATH 019 or MATH 021.

BHSC 175. Cross Sectional Imaging. 3 Credits.

Introduction to the radiographic anatomy and the various imaging modalities presently used to include diagnostic imaging, computed tomography (CT), magnetic resonance imaging (MRI), and nuclear medicine. Prerequisites: ANPS 020.

BHSC 188. Teaching Assistantship. 1-3 Credits.

Undergraduate student service as a teaching assistant, usually in an introductory level course in the discipline, for which credit is awarded. Offered at department discretion.

BHSC 190. Internship. 1-18 Credits.

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

BHSC 192. Independent Study. 1-18 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

BHSC 196. Intermediate Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

BHSC 198. Undergraduate Research. 1-18 Credits.

Undergraduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion. Prerequisite: Department Permission.

BHSC 242. Immunology. 3 Credits.

Deals with cells, organs, development, interactions and the functioning (infectious process, immunodeficiency, hypersensitivity reactions, transplantation and tumor immunology) of the innate and the adaptive immune system. Prerequisites: One semester of biochemistry, one semester of organic chemistry.

BHSC 244. Immunology Lab. 1 Credit.

Laboratory experience dealing with cellular and humoral immunity, B cells and T cells, autoimmunity, immunodeficiency. Laboratory covers immunological techniques and applications. Prerequisites: One semester of biochemistry, one semester of organic chemistry. Co-requisites: BHSC 242 or MMG 223.

BHSC 281. Applied Molecular Biology. 3 Credits.

Introduces students to the nucleic acid and protein-based molecular diagnostics technology through class presentation, reading, and discussions. Focuses on diagnostic applications for understanding molecular mechanisms of disease. Prerequisite: CHEM 042 or CHEM 141.

BHSC 282. Applied Molecular Biology Lab. 1 Credit.

Laboratory experiences include practical concepts of molecular applications. Introduces basic methods used in DNA and Protein technology including plasmid isolation, polymerase chain reaction, restriction enzyme use, and related assays. Prerequisite: CHEM 042 or CHEM 141. Co-requisite: BHSC 281.

BHSC 288. Teaching Assistantship. 1-3 Credits.

Undergraduate student service as a teaching assistant, usually in an introductory level course in the discipline, for which credit is awarded. Offered at department discretion.

BHSC 290. Internship. 1-18 Credits.

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

BHSC 292. Independent Study. 1-18 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

BHSC 296. Advanced Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles. Prerequisite: Department permission.

BHSC 297. Leadership & Mgt in Hlth Care. 3 Credits.

Familiarizes students with operational aspects of health care management, leadership and policy. Explores current techniques in process improvement, management methodologies, and healthcare policy with a special focus on disparities in health and healthcare. Prerequisites: Minimum Junior standing; College of Nursing and Health Sciences majors.

BHSC 298. Undergraduate Research. 1-18 Credits.

Individual research performed under the supervision of a faculty mentor. A written report and seminar is required. Prerequisite: Department Permission.