2025-2026 Biomedical Science (BMS) 1

# **BIOMEDICAL SCIENCE (BMS)**

#### BMS 150 - Introduction to Biomedical Science (2.0 hours)

Introduces Biomedical Science majors to critical concepts in biomedical science fields focusing first on broad science topics such as hypothesis testing, library research, and ethics in science. The course then explores important topic areas in biomedical sciences including the definition and history of medicine, function of research in protecting human health and curing disease, and role of biotechnology.

Prerequisite: BMS major or consent of chair

#### BMS 320 - Environment and Human Health (3.0 hours)

Introduces Biomedical Science majors to critical concepts in ecology and evolutionary biology. The health of any organism is impacted by its biotic and abiotic environment. The course will focus on investigating the environmental controls on human health and development, how environment controls virulence and spread of disease, and how health and agents of disease are impacted by evolution.

Prerequisite: C or better in BIO 151 and BIO 251; BMS, BIO or ENS major; or consent of instructor.

### BMS 465 - Medical Physiology (3.0 hours)

Introduces students to critical clinical concepts in human medical physiology. The course is not designed as a survey course of the eleven organ systems in the human body. Rather, the focus is on complete coverage and student understanding of a few specific systems, including cardiovascular, respiratory, renal, and muscular systems. The focus will be on understanding the physiology of the systems and how system dysfunction leads to disease states. Treatment options for various pathological conditions will be discussed.

Prerequisite: C or better in BIO 250; or consent of instructor.

## BMS 466 - Human Anatomy (4.0 hours)

Introduces students to cadaveric dissection and the study of the human musculoskeletal, nervous, and cardiovascular systems, with additional coverage of the other abdominal and thoracic systems. The focus of the course will be on application of anatomical knowledge to normal physiologic function and disease processes.

Prerequisite: B or better in BMS 465 or B or better in BIO 310; or consent of instructor.

## BMS 490 - Biomedical Science Capstone (1.0 hour)

Core Curriculum: EL

Students will apply the skills and knowledge developed in the Biomedical Science major to complete collaborative projects with guidance from a team of faculty. Required for all Biomedical Science majors.

Prerequisite: Senior standing (junior standing with consent of chair).