What is Biomedical Sciences?

Biomedical sciences is the broad field of applied biology as related to human health, veterinary medicine, and disease. It involves the study of structure and function from the molecular to systemic level.

Program Strengths

Small program size: With only 300 majors enrolled, every student receives individual and personalized attention from faculty members, academic advisors, and career counselors who mentor and guide students through the program of study.

Unique undergraduate opportunities: Study directly with cadavers in human and animal gross anatomy courses.

Undergraduate research options: Work in broad areas such as cardiovascular physiology, neurobiology, and reproductive physiology.

Cohesive curriculum: Curriculum provides cohesive succession of physiology courses that culminate with a senior capstone experience integrating course material using pathophysiological mechanisms.

Active student organization: Get involved with a student group focused on leadership, community service, social interaction, and career exploration opportunities.

For additional information, please contact:

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http://csu-cvmbs.colostate.edu/academics/bms
I want to be...

A biomedical sciences degree prepares students for a broad array of career options and post-graduate professional study, including:

- Graduate studies in areas such as physiology, neuroscience, morphology, and pathology
- Veterinary medicine
- Medical school
- Programs in allied human health professions such as dentistry, physician assistant, pharmacy, chiropractic medicine, physical therapy, and optometry

Other career options include, but are not limited to:

Biomedical science related positions associated with health and disease in sales, marketing, and research management

Laboratory research related to health issues such as heart disease and stroke, cancer, infectious diseases, and chronic neurological diseases

Work in health related companies such as biotechnology, pharmaceuticals, and medical devices

Foundational Courses

- General Biology & Lab (LIFE 102)
- Introduction to Biomedical Sciences (BMS 260)
- General Chemistry & Labs (CHEM 111, 112 and CHEM 113, 114)
- Organic Chemistry & Lab (CHEM 341, CHEM 343, and CHEM 344)
- Biochemistry (BC 351)
- General Physics & Lab (PH 121 and PH 122)
- General Microbiology & Lab (MIP 300 and MIP 302)
- Calculus (MATH 155 or MATH 160)
- Statistics (STAT 301 or STAT 307)
- Eukaryotic Cell Biology & Lab (LIFE 210 and LIFE 212)

Directed Electives will be chosen by the student to gain specialized skills within the areas of biomedical sciences that are tailored to the student’s interests and goals.

Course options include:

- Neurobiology
- Neuroanatomy
- Nerve & muscle – toxins, trauma, and disease
- Endocrinology
- Pharmacology
- Cardiopulmonary physiology
- Human & animal reproductive biology
- Research and/or internship
- Advanced physiology
- Domestic animal or human anatomy dissection
- Other approved courses outside departmental offerings

Biomedical Sciences Courses

- Fundamentals of Physiology & Lab (BMS 360, BMS 302)
- Human Gross or Microscopic or Domestic Animal Gross Anatomy (BMS 301 or BMS 330 or BMS 305)
- Capstone Course in Pathophysiology, Cardiopulmonary Physiology, or Functional Neuroanatomy (BMS 460, 420, or 345)
- Capstone Seminar (BMS 461, 421, or 400)