

BIOMEDICAL RESEARCH (BIMR)

200 Level Courses

BIMR 260: *Diversity of Biomedical Scientific Traditions*. 3 credits.

This undergraduate course is designed for the students of all backgrounds who are interested in learning about diversity of concepts concerning the systematic study of the nature and the human body across cultures and civilizations. All civilizations have collected this type of knowledge and analyzed it, which often led to breakthroughs in technology. The course will describe various biomedical concepts in traditional cultures and their interplay with modern biomedicine. The goal of the course is to trace the development of the systems' approach to modern science and learn about foundational scientific concepts underlining the achievements of different cultures across the globe. Special emphasis will be placed on a progress of life sciences in a context of cultural diversity. Offered by School of Systems Biology (<https://catalog.gmu.edu/colleges-schools/science/systems-biology/>). Limited to three attempts.

Recommended Prerequisite: Students are expected to be familiar (on a conceptual level) with the basic concepts of natural sciences such as biology, chemistry, and physics.

Schedule Type: Lecture

Grading:

This course is graded on the Undergraduate Regular scale. (<https://catalog.gmu.edu/policies/academic/grading/>)

400 Level Courses

BIMR 480: *Gateway to a Medical Career*. 3 credits.

The mission of this class is to prepare students for many types of medical careers. Students will revisit notions acquired in previous chemistry and biology classes and contextualize them in relation to human diseases. Systemic approach to physiology and pathology of human diseases will be undertaken, with emphasis on cancer biology. Offered by School of Systems Biology (<https://catalog.gmu.edu/colleges-schools/science/systems-biology/>). Limited to three attempts.

Recommended Prerequisite: An undergraduate BIOL or CHEM course, or permission of instructor.

Schedule Type: Lecture

Grading:

This course is graded on the Undergraduate Regular scale. (<https://catalog.gmu.edu/policies/academic/grading/>)

500 Level Courses

BIMR 510: *Creativity and Innovation in Biomedical Research*. 3 credits.

Creativity and innovative thinking is the most important requirement for success in any field. Creative thinking drives all progress in the arts, the sciences, and the commercial sector. Under this philosophy, students will be immersed in a culture of creativity surrounded by mentors and advisors who explain and demonstrate the creative process. Students will be shown that every team member in a modern career – ranging from summer scientists to tenured professors – can be the originator (and inventor) of a seminal idea that opens a whole new field. Offered by School of Systems Biology (<https://catalog.gmu.edu/colleges-schools/science/systems-biology/>). May not be repeated for credit.

Recommended Prerequisite: Undergraduate upper-level coursework in Biology, Biochemistry, and Chemistry, or the equivalents.

Registration Restrictions:

Enrollment limited to students with a class of Advanced to Candidacy, Graduate, Junior Plus, Non-Degree or Senior Plus.

Students in a Non-Degree Undergraduate degree may **not** enroll.

Schedule Type: Lecture

Grading:

This course is graded on the Graduate Regular scale. (<https://catalog.gmu.edu/policies/academic/grading/>)