BIOM 2100K Molecular Genetics (3-3-4)

This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, evolution and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles. This course has been approved to satisfy the Comprehensive Articulation Agreements for transferability as a pre-plan of study and/or elective course requirements.
Prerequisites: Permission of program director.
Corequisites: None.
Offered: Spring.

BIOM 2101K Introduction to Biotechnology (3-3-4)

This course introduces the basic skills and knowledge necessary in a biological or chemical laboratory. Emphasis is placed on acquiring efficiency in the laboratory, safety, solution preparation and problem solving. Upon completion, students should be able to prepare and perform basic laboratory procedures using lab ware, solutions and equipment according to prescribed protocols.
Prerequisite: None.
Offered: On demand.

BIOM 2202K Applications in Biotechnology (2-4-4)

This course is designed for students to gain experience in conducting supervised research on a particular research project. In addition, students will conduct literature reviews, present experimental findings, and present an oral and poster presentation of all research conducted at end of the course.
Prerequisite: BIOM 2101K.
Corequisites: None.
Offered: On demand.

BIOM 2204K Cellular/Molecular Biology (3-3-4)

This course allows students to explore the major events that occur inside a cell. The emphasis is on cellular organization, protein trafficking, secretory mechanisms, second messengers, and pathological conditions. Upon completion, students should be able to recognize and describe the inner workings of the cell at the molecular level. This course has been approved to satisfy the Comprehensive Articulation Agreements for transferability as a pre-plan of study and/or elective course requirement.
Prerequisites: Permission of program director.
Offered: Spring.

BIOM 2205K Introduction to Biochemistry (2-4-4)

The purpose of this course is to explore the major biochemical events that occur inside prokaryotic and eukaryotic cells. The main areas of focus are on catabolic/ anabolic chemical reactions that occur in cells; major metabolic pathways in a cell; impact of pH, acidity and alkalinity on metabolism; properties of buffers; chemical/structural properties of proteins; protein-protein interactions; characteristics of amino acids; and general enzyme functions. Supplemental learning is conducted via lab activities which include chromatography, spectrophotometry, DNA analysis, DNA amplification and protein production/purification. This class meets the biochemistry requirements for Darton's pre-pharmacy students applying to Mercer University's School of Pharmacy.
Prerequisites: Permission of program director.
Offered: On demand.