BIOLOGY (BIO)

BIO 510 Molecular Cell Biology Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Advanced cell biology covering topics relevant to cellular structure and function. Selected topics may include: Cell signaling, cell adhesion, membrane function, cell motility and cytoskeletal structure and function. The cellular basis for some human syndromes and disease will also be covered. **Prerequisite(s):** BIO 205 or equivalent with grade of C or higher and graduate standing.

BIO 511 Developmental Biology Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Examines the morphological changes and the genetic and molecular pathways involved in animal embryonic development. **Prerequisite(s):** BIO 205 or equivalent with grade of C or higher and graduate standing.

BIO 516 Vertebrate Biology Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Comparative anatomy, biological principles, and taxonomy of the vertebrates. **Prerequisite(s):** Graduate standing; BIO 205 and BIO 225, or equivalent, both with a grade of C or higher.

BIO 517 Medical Parasitology Credits: 3
Typically Offered: Departmental Discretion.
Course Description: An introduction to the major protozoal, helminth, and arthropod parasites of humans. **Prerequisite(s):** BIO 205 and BIO 225 or equivalent, both with grade of C or higher and graduate standing.

BIO 521 Immunology Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Investigation of the cellular and molecular basis of the immune response. Methods in immunology as applied to various fields. **Prerequisite(s):** Graduate standing; BIO 390 or equivalent with a grade of C or higher.

BIO 530 Molecular Basis of Disease Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Investigation of the basic biological causes of human disease at molecular, cellular, and physiological levels. **Prerequisite(s):** BIO 205 or equivalent with a grade of C or higher and graduate standing.

BIO 541 Virology Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Principles of virology that will focus on virus classification, various molecular aspects of virus replication, and pathogenesis. **Prerequisite(s):** BIO 390 or equivalent with a grade of C or higher and graduate standing.

BIO 625 Graduate Internship in Biology Credits: 1-3
Typically Offered: Departmental Discretion.
Course Description: An extracurricular experience related to a biological career. Must contain a significant amount of independent thinking and problem solving. Course grades assigned on a credit/fail basis. May be repeated for a maximum of 3 credits. **Prerequisite(s):** Department approval and graduate standing.