BIOLOGY (BIOL)

**BIOL 101a or b, Biochemistry and Biophysics**  Staff
The study of life at the molecular level. Topics include the three-dimensional structures and function of large biological molecules, the human genome, and the design of antiviral drugs to treat HIV/AIDS. The first of four modules in a yearlong foundational biology sequence; meets for the first half of the term.  

**BIOL 102a or b, Principles of Cell Biology**  Staff
The study of cell biology and membrane physiology. Topics include organization and functional properties of biological membranes, membrane physiology and signaling, rough endoplasmic reticulum and synthesis of membrane/secretory membrane proteins, endocytosis, the cytoskeleton, and cell division. The second of four modules in a yearlong foundational biology sequence; meets for the second half of the term. Prerequisite: BIOL 101.

*BIOL 103a or b, Genetics and Development**  Staff
Foundation principles for the study of genetics and developmental biology. How genes control development and disease; Mendel's rules; examples of organ physiology. The third of four modules in a yearlong foundational biology sequence; meets for the first half of the term. Prerequisites: BIOL 101 and 102.

**BIOL 104a or b, Principles of Ecology and Evolutionary Biology**  Staff
The study of evolutionary biology, animal behavior, and the history of life. Evolutionary transitions and natural selection. Adaptation at genic, chromosomal, cellular, organismal, and supra-organismal levels. Distributional and social consequences of particular suites of organismal adaptations. The fourth of four modules in a yearlong foundational biology sequence; meets for the second half of the term. Prerequisites: BIOL 101, 102, and 103.