

Biotechnology

BTC 121 Scientific Literature for Biotech (3 credit, 3 lecture, 0 lab)

An online-based course designed to assist in the development of scientific writing skills with an emphasis in the life-sciences. Successful completion of the course will provide the student with the skills necessary for effective literary research and composition associated with scientific manuscripts. It is recommended for other Associate of Science majors that intend on pursuing a career in academia, medical sciences, or associated fields. Student performance is assessed primarily through the completion of weekly assignments and the generation of a complete scientific manuscript.

BTC 221 Introduction to Biotechnology (4 credit, 3 lecture, 2 lab)

An introduction to the history, techniques and applications of biotechnology. Topics include cell structure and microscopy; cellular chemistry and physiology; DNA, RNA and protein isolation and purification; blot techniques; PCR; medical and botanical biotech; the biotechnology industry. Laboratory required. **Pre-Requisite:** BIOL 121 or BIOL 221 or instructor consent.

BTC 241 Immunology for Biotechnology (3 credit, 3 lecture, 0 lab)

Provides students with a comprehensive introduction to immunology, immunological applications and research, and the relationship between immunology and biotechnology. Topics include: Innate Immunity; B-cell and T-cell Responses; Hypersensitivities; Immunity in Health and Disease. **Pre-Requisite:** BIOL 221 or BIOL 261 or instructor consent.

BTC 242 Cell & Molecular Biology (3 credit, 3 lecture, 0 lab)

A comprehensive introduction to cell biology and molecular techniques. Topics include: Protein Structure and Function; Genetics and Molecular Biology; Genomics; Biomembranes; Cell Communication; Cell Culturing and Visualization; Cell Growth and Development. **Pre-Requisite:** BIOL 221.