



ACADEMY OF SCIENCE & TECHNOLOGY: BIOTECHNOLOGY PATHWAY

Overview

The goal of the biotechnology major at MOT Charter High School is to expose students to the ethics and concepts of what biotechnology is and how it is used. The major provides foundational biotechnology knowledge and skills to prepare them for future studies.

Biotechnology courses at MOT Charter:

Biotech I Designed to introduce students to the science of biotechnology and examine the social impact of current biotechnology issues. Topics will include standard lab operating procedures, lab techniques, organisms used in labs, genetics and DNA, as well as the ethical, economic, environmental, political and historical impact of biotechnology on our society.

Biotech II Focuses on how biotechnology is used in agriscience by using plants to represent different types of propagation techniques and comparing DNA isolation techniques. It will also introduce students to the use of plants and microbes in bioproducts.

Biotech III The final sequence in the pathway introduces students to how biotechnology plays a role in biomedical and forensic fields. Students will test and diagnose theoretical patients and suggest treatments for each patient based on results. Students majoring in the pathway will complete a capstone project; while non-majors will design and implement an independent study investigation with the guidance of the instructor.

