THE OHIO STATE UNIVERSITY ATI

Biotechnology

The biotechnology industry is one of the fastest growing in the country. According to the U.S. Department of Labor Statistics, biotechnicians are projected to be in great demand in the coming years.

Biotechnology uses living cells and materials produced by cells to create pharmaceutical, diagnostic, agricultural, environmental and other products for the betterment of humans. Applications range from health care to food safety to the environment.

The objective of the biotechnology program is to provide students with a working knowledge of the profession by providing experience and expertise using the latest laboratory equipment and critical consideration of current topics in biotechnology.

The biotechnology curriculum at ATI emphasizes an understanding of current laboratory methods and techniques and their use in various industries. Students learn such skills as data processing, data analysis, technical report preparations, summarizing research findings, and information gathering, as well as technical skills relating to the use of equipment.

Internships

Biotechnology students complete an industry internship of 15 weeks of full-time employment in biotechnology. Ohio State ATI helps students find appropriate internship positions in both Ohio and other states. Students are graded on their job performance and awarded academic credit.

Career Prospects

Graduates with an Associate of Applied Science degree in biotechnology are prepared for careers as research/technical assistants in biomedical, pharmaceutical, forensic, bioengineering, agriculture, microbiology and environmental fields working in government, academic and private laboratories.

Sample Courses

Introduction to Biotechnology
Biotechnology I
Biotechnology II
Introductory Biochemistry
Data Analysis in Applied Sciences
Modern Genetics
Recombinant DNA Technology
Animal Tissue Culture
Basic and Practical Microbiology
Multimedia in Business
Principles of Food and Resource Economics

Facilities

Ohio State ATI has two biotechnology laboratories equipped with instruments such as: incubators, centrifuges, gas chromatographs, high performance liquid chromatographs, spectrophotometers, electrophoresis equipment (agarose and acrylamide), polymerase chain reaction thermocycler, UV/Vis gel box, immunoblotters, and flame atomic absorption units. With this equipment, biotechnology students can conduct experiments involving: analyzing, identifying and purifying fragments of DNA, detecting proteins in a sample, detecting metals and metalloids in environmental samples, amplifying DNA samples for cloning analysis and isolating enzymes.

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