

JOB OUTLOOK.....

Biotechnology has been identified as a high growth industry by the U.S. Department of Labor, with the need for biological technicians expected to grow by 19.4% between 2002—2012 . The typical average salary for skilled technicians is \$25 / hour.

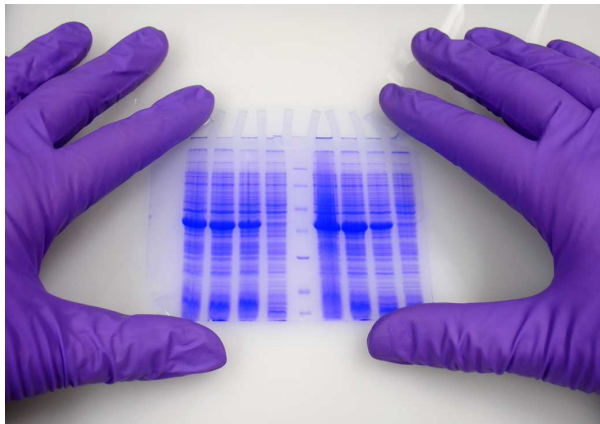
The Lexington region, which serves as a governmental, medical and educational hub in the state has particular workforce needs in which biotechnology careers play a key role.



Are you interested in learning how to clone microorganisms and harvest their proteins? Check out—

BT 202:

Biotechnology techniques II



If you would like to develop or enhance your laboratory skills and want additional information contact.....

Deborah Davis

859-246-6451

deborah.davis@kctcs.edu

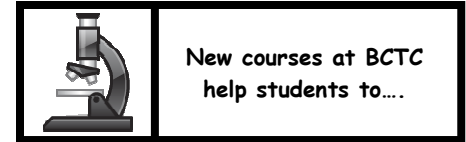
OR

Tammy Liles

859-246-6449

tammy.liles@kctcs.edu

Some students may qualify for a scholarship through the SCIENCE EXCEL Program. This program awards up to \$6000 per year based on student financial need, academic performance, application essay, and science teacher recommendation. For more information on the SCIENCE EXCEL Program, contact Tammy Liles at 859-246-6449 or tammy.liles@kctcs.edu.



**Explore
the World
of
Biotechnology**



What is Biotechnology?

Biotechnology is the use of biological processes, organisms, or systems to manufacture products intended to improve the quality of human life. Biotechnology can involve medical processes such as getting organisms to produce new drugs, or using stem cells to regenerate damaged human tissues and perhaps re-grow entire organs.

Biotechnology in the industrial setting includes the production of new chemicals or the development of new fuels for vehicles. In agriculture, biotech can involve such processes as the development of pest-resistant grains or the accelerated evolution of disease-resistant animals.

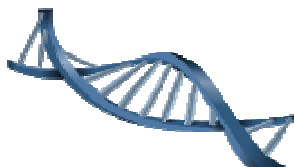


Learn how to measure volume and weight, prepare solutions and keep a true laboratory notebook in

BT 201: Biotechnology Techniques I

Biotechnology courses are new to BCTC. These courses emphasize skills necessary for entry-level employment in bioscience laboratories. The courses focus on techniques basic to the commercial development of products from biological systems. Students acquire proficiency in laboratory skills, effective communications and employment skills. Individuals who like the challenge of laboratory work are encouraged to enroll.

Students that complete BT (Biotechnology) courses may seek entry-level employment in public or private laboratories for positions frequently titled laboratory assistant, laboratory technician, laboratory tester or laboratory worker. These laboratories are found in universities, pharmaceutical companies, food processing industries, companies performing research and development, and companies involved in plant and animal breeding.



Biotechnology Courses offered

BT 101: Introduction to Biotechnology

A survey courses designed to introduce current and future applications of biotechnology. Students will also learn about biotechnology career opportunities and bioethics. The course platform consists of lectures and discussions by biotech professionals and faculty, as well as student discussions and presentations.

1 credit hour

BT 201: Biotechnology Techniques I

Introduces theory and techniques applicable in the field of biotechnology. Covers media and solution preparation, use of analytical equipment, and laboratory safety. Includes various nucleic acid techniques, gene expression and purification, and bioinformatics.

4 credit hours

BT 202: Biotechnology Techniques II

Covers various protein techniques, extraction and purification, and assays. Prerequisite: BT 201

4 credit hours

Completion of these biotechnology courses along with one of the following science lecture/lab combinations will qualify students to add the Biotechnology Focus Area to their AS degree!

BIO 112 (Introduction to Biology - 3 credits) and BIO 113 (Introduction to Biology Laboratory - 1 credit); or BIO 120 (Human Ecology - 3 credits) and BIO 121 (Introduction to Ecology Laboratory - 1 credit); or BIO 150 (Principles of Biology I - 3 credits) and BIO 151 (Principles of Biology Laboratory - 2 credits); or BIO 152 (Principles of Biology II - 3 credits) and BIO 153 (Principles of Biology II Laboratory - 2 credits); or CHE 150 (Introduction to Organic and Biological Chemistry - 3 credits) and CHE 155 (Introduction to Organic and Biological Chemistry Laboratory - 1 credit); or CHE 170 (General College Chemistry I - 3 credits) and CHE 175 (General College Chemistry Laboratory I - 1 credit)