

Biotechnology Certificate Program

Division of Biology & Chemistry

Curriculum Code: 3311

Will Earn Upon Program Completion: Certificate

Why major in Biotechnology?

This major prepares you for a career in the field of Biotechnology as a laboratory technician. With experience you may find positions in research, production, and development.

If I major in Biotechnology, can I transfer to an upper-division college or university?

The major is job-oriented and not designed for transfer to a baccalaureate program. However, other colleges and universities will apply some or all of the courses you have taken towards a bachelor's degree, depending upon their program requirements.

Are there any requirements I must satisfy before I start taking courses in my major?

The Basic Skills Test is a requirement for all majors. Remedial and/or college level courses can be taken while completing some General Education coursework.

How long will it take for me to complete this degree?

If you do not need remedial courses and you take 18 credits per semester, you should be able to complete the program in one year.

Where should I direct specific questions about this program?

Call the Division at (973) 877-3430.

Upon completion of this program, graduates will be able to:

- ◆ Demonstrate mastery of the fundamental concepts of biology, chemistry, and the scientific method;
- ◆ Demonstrate a mastery of the fundamental concepts and current applications of cellular and molecular biology;
- ◆ Perform qualitative, quantitative, and instrumental analysis of macromolecular samples using established molecular techniques and instrumentation;
- ◆ Use the computer for collecting and assessing laboratory and field data and for preparing reports;
- ◆ Maintain a laboratory notebook according to current Biotechnology industry standards documenting lab procedures, problem solving, data collection, and data analysis;
- ◆ Critically assess the ethical, social, legal and economic implications of current biotechnology research;
- ◆ Assess personal compliance with current lab safety procedures and OSHA guidelines.

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| <p>GENERAL EDUCATION REQUIREMENTS: (3 credits)</p> <p>Communications (3 credits) ENG 101 College Composition I 3</p> <p>MAJOR COURSE REQUIREMENTS: (24 credits)</p> <p>BIO 103 General Biology I 4 BIO 228 Molecular Biology 4 BIO 229 Biotechnology Laboratory 4 CHM 103 General Chemistry I 4 CHM 104 General Chemistry II 4 MTH 113 College Algebra with Trig. 4</p> <p>ADDITIONAL COURSE REQUIREMENTS: (4 credits)</p> <p>BIO 230 Biotechnology Internship 4</p> <p>Total Credits Required for Degree 31</p> <p>The minimum passing grade for all courses designated BIO, CHM, MTH or PHY is "C." If you earn a grade below "C" you need to repeat the course.</p> | <p>RECOMMENDED SEQUENCE OF COURSES:</p> <p>First Semester</p> <p>BIO 103 General Biology I 4 CHM 103 General Chemistry I 4 ENG 101 College Composition I 3 MTH 113 College Algebra with Trig. 4</p> <p>Second Semester</p> <p>BIO 228 Molecular Biology 4 BIO 229 Biotechnology Laboratory 4 BIO 230 Biotechnology Internship 4 CHM 104 General Chemistry II 4</p> |
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***NOTE:** This plan assumes the completion of all required developmental courses in reading, writing, and mathematics as well as other pre- and co-requisites for some of the courses, as listed in the Course Descriptions section.