

The Associate in Science (A.S.) Degree in Biomedical Laboratory Technology prepares students both for employment and for advanced degrees in the life sciences.

The program prepares individuals for entry-level employment as a biotechnology research technician, biotechnology manufacturing technician, biotechnology testing technician and cell culture technician by providing them with the following skills: formulating chemical solutions; performing assays and recombinant DNA techniques; culturing organisms; purifying and characterizing DNA, RNA, and proteins; isolating and preparing samples for analyses; and collecting and assessing data.

<input checked="" type="checkbox"/> Task
<input type="checkbox"/> Explore career resources at <a href="https://fscj.edu/student-services/career-development">fscj.edu/student-services/career-development</a> .
<input type="checkbox"/> Meet with your advisor each term.
<input type="checkbox"/> Fulfill the Civic Literacy requirement.
<input type="checkbox"/> Satisfy the associate in science degree graduation requirements.

## Career Options

Biotechnologists are employed as laboratory technicians by clinical research and pharmaceutical drug development laboratories, or analytical laboratories. Students will also have great opportunities in forensic investigation, environmental improvement and protection, and agricultural product enhancement to feed an expanding global population.

## Advising

[biotechnologylaboratory@fscj.edu](mailto:biotechnologylaboratory@fscj.edu).

## Sample Roadmap

This roadmap provides general guidance about required courses. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog and class schedules for additional information. **Full-time students will refer to the term-by-term recommendations**, and **part-time students will take courses in the order listed**.

A minimum grade of C or higher must be achieved in all professional courses, as well as courses used to satisfy the general education and civic literacy requirements. A list of Professional Elective Coursework options is available at the end of this document.

### Term 1

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered
<input type="checkbox"/>	ENC 1101: English Composition I or ENC 1101C: English Composition I Enhanced	3 or 4	Varies
<input type="checkbox"/>	MAC 1105: College Algebra or higher-level MAC prefix course or MAP 2302: Differential Equations or MGF 1106: Topics in College Mathematics or MGF 1107: Explorations in Mathematics	3-5	Varies
<input type="checkbox"/>	AMH 2020: United States History From 1877 to the Present or POS 2041: American Federal Government	3	All

### Term 2

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered
<input type="checkbox"/>	CHM 1025C: Introduction to General Chemistry	4	All
<input type="checkbox"/>	BSC 1421C: Introduction to Biotechnology Methods	4	All
<input type="checkbox"/>	BSC 2010C: Principles of Biology I	4	All

### Term 3

**Note:** BSC 2420C and BSC 2427C will be offered in the following terms: Spring 2024, Fall 2024, Summer 2025, Spring 2026, Fall 2026, Summer 2027 and Spring 2028.

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered
<input type="checkbox"/>	BSC 2420C: Biotechnology Methods I	4	See note
<input type="checkbox"/>	BSC 2427C: Biotechnology Methods II	4	See note
<input type="checkbox"/>	MCB 2010C: Microbiology	4	All
<input type="checkbox"/>	STA 2023: Elementary Statistics	3	All

### Term 4

**Note:** BSC 2419C and BSC 2435 will be offered in the following terms: Spring 2023, Fall 2023, Summer 2024, Spring 2025, Fall 2025 and Summer 2026.

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered
<input type="checkbox"/>	BSC 2419C: Protein Biotechnology and Cell Culture	4	See note
<input type="checkbox"/>	BSC 2435: Introduction to Bioinformatics	3	See note
<input type="checkbox"/>	CHM 2045C: General Chemistry and Qualitative Analysis I	4	All

## Important for You to Know

This academic roadmap does not include **developmental education courses** in reading, writing, and/or mathematics that you may be required to take. Students who place into developmental education courses are required to complete designated developmental education courses with a grade of C or higher regardless of program of study. In addition, it does not include **MAT 1033: Intermediate Algebra**, which, for many students, is a prerequisite course for MAC 1105.

## Related Roadmaps

### Embedded Technical Certificate(s)

Technical certificates are available within this degree program. Students may pursue the A.S. degree and earn technical certificates while completing the requirements for the degree or pursue one or more certificates to develop or upgrade their skills in a particular field. Contact an advisor to determine the career education path that is best for you. Embedded technical certificates include:

- Biotechnology Specialist (Manufacturing)
- Biotechnology Laboratory Specialist (Health Science)

## Term 5

**Note:** BSC 1943 requires permission of the instructor and acceptance by a preceptor at an approved off-site worksite.

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered
<input type="checkbox"/>	BSC 1943: Biotechnology Internship <b>or</b> BSC 1942: Biotechnology Externship	3	All
<input type="checkbox"/>	CHM 2046C: General Chemistry and Qualitative Analysis II	4	All
<input type="checkbox"/>	PHI 2010: Philosophy in the Humanities <b>or</b> HUM 2020: Topics in the Humanities	3	Varies
<input type="checkbox"/>	Professional Elective	4	Varies

## Total Program Credit Hours

The **Biotechnology Laboratory Technology** A.S. degree program requires a **minimum of 61 credit hours**. Total program hours may vary based on the student's individual degree plan. Please see an advisor for individual guidance. This program **is eligible** for financial aid.

## Professional Elective Coursework Options

Minimum Credit Hours: 4

**Note:** Students planning on pursuing a bachelor's degree are encouraged to take BSC 2085C or other related courses with permission of the instructor.

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered
<input type="checkbox"/>	BSC 2085C: Human Anatomy and Physiology I	4	Varies
<input type="checkbox"/>	BSC 2020C: Human Biology	4	Varies
<input type="checkbox"/>	CHM 1032C: Principles of General Chemistry	4	Varies

## Program Learning Outcomes

Upon completing this program, students will be able to demonstrate proficiency in the following program learning outcomes:

- Students will effectively communicate in the biotechnology laboratory environment.
- Students will demonstrate safety skills.
- Students will identify basic laboratory skills.
- Students will demonstrate computer skills needed in bioinformatics