

About the Program

The Technical Certificate (T.C.) in Chemical Laboratory Specialist provides students with exposure to the principles of biological sciences, chemistry, and mathematics necessary for success in a scientific work environment.

Program Requirements

This program requires a **minimum of 37 credit hours**. Total program hours may vary based on the student's individual academic plan. This program is **not eligible** for financial aid.

Students in this program are not required to complete math courses unless they are listed as part of the certificate program. If you plan to pursue the degree program in this same field, please note that **credits within this certificate may apply towards the Biomedical Sciences (T300) (B.S.) degree**, which includes an **Algebra Through Calculus math pathway**. To learn more about the Biomedical Sciences (T300) (B.S.) degree, visit fscj.edu/academics/programs/bs/T300.

Placement Testing

College placement testing assesses incoming students' skill levels in English, mathematics, and reading. Students are exempt from placement testing if they meet any of the following conditions:

- Entered the ninth grade in a Florida public school in 2003 or after and graduated from a Florida Public High school with a standard high school diploma.
- Are currently serving as an active-duty member of any branch of the U.S. Armed Services.
- Have received an A.A., A.S., A.A.S. or higher from an accredited institution.
- Have completed college-level courses in English and mathematics.
- Have completed upper-level developmental courses in English/Reading and Mathematics.
- Are a Transient student (Florida Shines or transient letter from home institution is required).

All other students in this program must take a placement test. 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 and are also required to take one of two student success strategies courses. For additional information, visit catalog.fscj.edu/academics/developmental-education-programs or speak with an advisor.

Technical Certificate Graduation Requirements

- ☐ Fulfill all academic requirements for the chosen program of study as outlined in the Florida State College at Jacksonville catalog and curriculum.
- ☐ Earn minimum prescribed semester hours for the chosen program of study with a cumulative grade point average of 2.0 (C) on a 4.0 scale on all courses that apply to the chosen program of study.
- ☐ Complete a minimum of 25 percent of the total hours required for the program in residence at Florida State College at Jacksonville. Credit by examination and credit for prior learning do not count toward this residency requirement.
- ☐ Fulfill all obligations, financial or otherwise, to the College before graduating.

Catalog Year

This document is prepared for students with a **2025-26 College Catalog year** who have not tested into developmental education courses. **Students who enter under the 2025-26 catalog** will be assigned to the degree or certificate requirements in effect during the 2025-26 academic year. The student's assigned catalog year will remain in effect as long as the student maintains continuous enrollment. Changes to requirements as mandated by law or by rule of the District Board of Trustees may supersede this provision.

To maintain continuous enrollment, a student must have registration for, and successful completion of, at least one course within a three-term period. After three consecutive terms of no enrollment, the student will be discontinued from the current program of study and will need to apply to FSCJ to reenter under the same program of study. Upon readmission, the student will be assigned to the current catalog of record in the chosen program.

Curriculum

All courses in this program must be completed with a grade of C or higher.

Terms Offered are subject to change. Please verify course availability at fscj.edu/schedules. Prior to enrolling in classes, please meet with an advisor for specific guidance about your individual academic plan.

Sample Roadmap: Biological Sciences Option

This sample roadmap shows one possible pathway to program completion and may not be appropriate for all students.

Term 1

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> BSC 2085C - Human Anatomy and Physiology I, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Term 2

- | | |
|----------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> BSC 2010C - Principles of Biology I, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Term 3

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|-----------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> BSC 2011C - Principles of Biology II, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Term 4

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> BSC 2086C - Human Anatomy and Physiology II, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> <i>If needed to satisfy the minimum credit hours (21) for Professional Elective Coursework:</i>
Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Sample Roadmap: Chemical Laboratory Option

This sample roadmap shows one possible pathway to program completion and may not be appropriate for all students.

Term 1

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|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> CHM 2045C - General Chemistry and Qualitative Analysis I, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Term 2

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> CHM 2046C - General Chemistry and Qualitative Analysis II, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Term 3

- | | |
|------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> CHM 2210C - Organic Chemistry I, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Term 4

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="checkbox"/> CHM 2211C - Organic Chemistry II, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> <i>If needed to satisfy the minimum credit hours (21) for Professional Elective Coursework:</i>
Professional Elective course, Credit Hours: 3-5. | Grade Earned: _____ |

Course Requirements

Prerequisites, corequisites, and conditions for any course are subject to change. Students must meet the prerequisite and corequisite requirements of any course at the time the student attempts to register for that course. If you have questions about the prerequisites, corequisites, or conditions for a course, please contact any academic advisor.

Professional Courses

Complete all courses from either the Biological Sciences Option or the Chemical Laboratory Option.

Biological Sciences Option Courses

BSC 2010C - Principles of Biology I, Credit Hours: 4. *State Core course.*

Prerequisite(s): None. **Corequisite(s):** None. **Conditions:** This course fulfills the General Education Requirements and the laboratory requirement needed by many students who plan to transfer to a four-year institution. **Terms Offered:** Fall, Spring, Summer.

BSC 2011C - Principles of Biology II, Credit Hours: 4. **Prerequisite(s):** BSC 2010C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

BSC 2085C - Human Anatomy and Physiology I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** High School Chemistry taken within the past five years. High School Biology taken within the past five years. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

BSC 2086C - Human Anatomy and Physiology II, Credit Hours: 4. **Prerequisite(s):** BSC 2085C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** High School Chemistry taken within the past five years. High School Biology taken within the past five years. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

Chemical Laboratory Option Courses

CHM 2045C - General Chemistry and Qualitative Analysis I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** MAC 1105 or MAC 1105C or higher-level MAC prefix course or MAP 2302, and CHM 1025C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** Passing score on the Toledo Chemistry test may substitute for CHM 1025C prerequisite requirement. **Terms Offered:** Fall, Spring, Summer.

CHM 2046C - General Chemistry and Qualitative Analysis II, Credit Hours: 4. **Prerequisite(s):** CHM 2045C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CHM 2210C - Organic Chemistry I, Credit Hours: 4. **Prerequisite(s):** CHM 2046C with a grade of C or higher or equivalent coursework with a grade of C or higher. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CHM 2211C - Organic Chemistry II, Credit Hours: 4. **Prerequisite(s):** CHM 2210C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

Professional Elective Courses

Complete a minimum of 21 credit hours from the following courses.

Note: MAC 2311, MAC 2312, PHY 2053C and PHY 2054C count towards the Biomedical Sciences (T300) (B.S.) degree.

BSC 2020C - Human Biology, Credit Hours: 4. **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

BSC 2050 - Biology of Environmental Systems, Credit Hours: 3. **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** TBA.

CHM 1025C - Introduction to General Chemistry, Credit Hours: 4.

Prerequisite(s): None. **Corequisite(s):** MAC 1105 or MAC 1105C or higher-level MAC course or MAP 2302. **Conditions:** This course meets the prerequisite for CHM 2045C. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

CHM 1032C - Principles of General Chemistry, Credit Hours: 4.

Prerequisite(s): None. **Corequisite(s):** MAT 1033 or higher. **Conditions:** This course does not meet the prerequisite for CHM 2045C. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

MAC 1114 - College Trigonometry, Credit Hours: 3. **Prerequisite(s):** MAC 1105 or MAC 1105C each with a grade of C or higher. **Corequisite(s):** None. **Conditions:** A strong high-school Algebra background is recommended. This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 1140 - Precalculus Algebra, Credit Hours: 4. **Prerequisite(s):** MAC 1105 or MAC 1105C each with a grade of C or higher or a satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 1147 - Precalculus Algebra and Trigonometry, Credit Hours: 5. **Prerequisite(s):** MAC 1105 or MAC 1105C each with a grade of B or higher or satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2311 - Calculus With Analytic Geometry I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** MAC 1140 and MAC 1114 each with a grade of C or higher or MAC 1147 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2312 - Calculus With Analytic Geometry II, Credit Hours: 4. **Prerequisite(s):** MAC 2311 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2313 - Calculus With Analytic Geometry III, Credit Hours: 4. **Prerequisite(s):** MAC 2312 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MCB 2010C - Microbiology, Credit Hours: 4. **Prerequisite(s):** CHM 1020 or CHM 1025C or CHM 1032C or CHM 2045C or other College level chemistry course or placement into CHM 2045C or higher by the chemistry placement exam. **Corequisite(s):** None. **Conditions:** It is recommended that students successfully complete BSC 1005 or BSC 2010C or BSC 2085C or BSC 2086C prior to enrollment in this course. **Terms Offered:** Fall, Spring, Summer.

PHY 2048C - Physics I with Calculus, Credit Hours: 4. **Prerequisite(s):** MAC 2311. **Corequisite(s):** MAC 2312. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

PHY 2053C - General Physics I, Credit Hours: 4. *State Core course.*

Prerequisite(s): (1) MAC 1140 and MAC 1114; or (2) MAC 2311; or (3) MAC 1147 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website.

Terms Offered: Fall, Spring, Summer.

PHY 2049C - Physics II With Calculus, Credit Hours: 4. **Prerequisite(s):** PHY 2048C. **Corequisite(s):** MAC 2313. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

PHY 2054C - General Physics II, Credit Hours: 4. **Prerequisite(s):** PHY 2053C. **Corequisite(s):** None. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

STA 2023 - Elementary Statistics, Credit Hours: 3. *State Core course.*

Prerequisite(s): Satisfactory score on placement test or successful completion of MAT 1033 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.