

The Technical Certificate (T.C.) in Advanced Manufacturing (Automation) focuses on Programmable Logic Controllers (PLC), industrial automation, robotics, human machine interfacing, and troubleshooting.

<input checked="" type="checkbox"/> Task
<input type="checkbox"/> View career information at <a href="http://www.fscj.edu/careercoach">http://www.fscj.edu/careercoach</a>
<input type="checkbox"/> Meet with your advisor each term.
<input type="checkbox"/> Satisfy the technical certificate graduation requirements.

### Articulation

This certificate articulates directly into the Engineering Technology (Advanced Manufacturing (2320) (A.S.) degree. Students may pursue one or more certificates to develop or upgrade their skills in a particular field or pursue the A.S. degree and earn technical certificates while completing the requirements for the degree. Contact an advisor to determine the career education path that is best for you.

### 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.

### Advising

(904) 598-5618 or [amt@fscj.edu](mailto:amt@fscj.edu).

### Recommended Roadmap

This roadmap provides general guidance about recommended courses. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog for additional information. A minimum grade of C or higher must be achieved in all professional courses.

#### Term 1

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered	Available Modalities
<input type="checkbox"/>	ETS 1603: Robotics - Mechanics and Controls	3	Fall, Summer	Hybrid

#### Term 2

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered	Available Modalities
<input type="checkbox"/>	ETS 1511C: Motors and Controls	3	Spring	Hybrid
<input type="checkbox"/>	ETS 1540C: Industrial Applications Using Programmable Logic Controllers in Instrumentation	3	Spring	Hybrid

#### Term 3

<input checked="" type="checkbox"/>	Course: Course Title	Credit Hours	Terms Offered	Available Modalities
<input type="checkbox"/>	ETS 1531C: Human Machine Interface and Systems Graphics	3	Fall	Hybrid

### Total Program Credit Hours

The Advanced Manufacturing T.C. program requires a **minimum of 12 credit hours**. Total program hours may vary based on the student's individual degree plan. Please see an advisor for individual guidance.

### Program Learning Outcomes

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

- Students will identify hazards (safety)
- Students will use a multimeter
- Students will learn the fluid power systems
- Students will get information about robotics
- Students will use precision instruments
- Students will use technical mathematics