

Engineering Technology (Advanced Manufacturing) (2320) (A.S.)

RECOMMENDED ROADMAP

This Roadmap is a recommended way to complete this program of study. Course availability is subject to change. In some cases, a specific course is shown, but there are other options available. To review and consider other courses, see the note at the bottom of this page. Part-time students should refer to the Recommended Course Sequence list. Consult an Academic Advisor or the Engineering & Industry department before creating your actual Academic Degree Plan and refer to the [FSCJ Catalog](#) for more information.

1st Term

Course ID	Course Title	Credit Hours	Grade Earned
1* ENC 1101	English Composition I	3	
2* See Note Below	Choose 1 General Education Mathematics	3	
ETS 1352	Introduction to Manufacturing Processes	3	
EET 1084	Survey of Electronics	3	

Term Total = 12

3rd Term

Course ID	Course Title	Credit Hours	Grade Earned
2* See Note Below	Choose one General Education Humanities	3	
ETS 1603	Robotics-Mechanics and Controls	3	
ETI 2622	Introduction to Lean Manufacturing	3	
4* See Note Below	Choose 1 Professional Elective	3	

Term Total = 12

5th Term

Course ID	Course Title	Credit Hours	Grade Earned
4* See Note Below	Choose 1 Professional Elective	3	
4* See Note Below	Choose 1 Professional Elective	3	
CGS 2470	Computer Aided Drafting and Design	3	
BCN 2732	OSHA Safety	3	

Term Total = 12

2nd Term

Course ID	Course Title	Credit Hours	Grade Earned
3* See Note Below	Choose one General Education Communications	3	
ETS 1511	Motors and Controls	3	
ETS 1520	Basics of Instrumentation	3	
ETS 1700	Hydraulics and Pneumatics	3	

Term Total = 12

4th Term

Course ID	Course Title	Credit Hours	Grade Earned
2* See Note Below	Choose 1 General Education Social and Behavioral Science	3	
4* See Note Below	Choose 1 Professional Elective	3	
4* See Note Below	Choose 1 Professional Elective	3	
4* See Note Below	Choose 1 Professional Elective	3	

Term Total = 12

Total Credit Hours = 60

Program Notes:

- 1* ENC 1101C can be taken in place of ENC 1101. Please speak with your advisor for more information.
- 2* See the options for the [General Education Requirements](#) in the 2020-2021 [FSCJ Catalog](#).
- 3* General Education Communications Options for this program include: ENC 1102, SPC 2017, SPC 2065 or SPC 2608
- 4* Visit the catalog program catalog page for information on professional elective options and suggested tracks: www.fscj.edu/2320

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RECOMMENDED COURSE SEQUENCE

This list shows a recommended sequence for completing the courses in this program of study. Course availability is subject to change. **Part-time students** should use this list to determine which courses to take next that fit their schedule. In some cases, a specific course is shown, but there are other options available. To review and consider other courses, see the note on page 1. Consult an Academic Advisor or the Engineering & Industry department before creating your actual Academic Degree Plan and refer to the [FSCJ Catalog](#) for more information.

- **ENC 1101** - English Composition I (Credit Hours: 3) - **Prerequisites:** Satisfactory score on reading and writing placement tests. **See program note 1*.**
- **Choose 1 General Education Mathematics. See program note 2*.**
- **ETS 1352** - Introduction to Manufacturing Processes (Credit Hours: 3) - **Prerequisites:** None.
- **EET 1084** - Survey of Electronics (Credit Hours: 3) - **Prerequisites:** None.
- **Choose 1 General Education Communications:** ENC 1102, SPC 2017, SPC 2065 or SPC 2608. **See program note 3*.**
- **ETS 1511** - Motors and Controls (Credit Hours: 3) - **Prerequisites:** EET 1084.
- **ETS 1520** - Basics of Instrumentation (Credit Hours: 3) - **Prerequisites:** None.
- **ETS 1700** - Hydraulics and Pneumatics (Credit Hours: 3) - **Prerequisites:** None.
- **Choose 1 General Education Humanities. See program note 2*.**
- **ETS 1603** - Robotics - Mechanics and Controls (Credit Hours: 3) - **Prerequisites:** None.
- **ETI 2622** - Introduction to Lean Manufacturing (Credit Hours: 3) - **Prerequisites:** ETS 1352.
- **Choose 1 Professional Elective** (see list below) (Credit Hours: 3) **See program note 4*.**
- **Choose 1 General Education Social and Behavioral Science. See program note 2*.**
- **Choose 1 Professional Elective** (see list below) (Credit Hours: 3) **See program note 4*.**
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- **Choose 1 Professional Elective** (see list below) (Credit Hours: 3) **See program note 4*.**
- **CGS 2470** - Computer Aided Drafting and Design (Credit Hours: 3) - **Prerequisites:** ETD 1100 or ETS 1520.
- **BCN 2732** - OSHA Safety (Credit Hours: 3) – **Prerequisites:** None.

Professional Elective Options (18 credit hours required):

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| <ul style="list-style-type: none"> • ETS 1531 - Human Machine Interface and Systems Graphics (Credit Hours: 3) • ETS 1535 - Automated Process Control (Credit Hours: 3) • ETS 1540 - Industrial Applications Using Programmable Logic Controllers and Robots (Credit Hours: 3) • ETS 1542 - Introduction to Programmable Logic Controllers (Credit Hours: 3) • ETS 1632 - Computer Integrated Manufacturing (Credit Hours: 3) • ETS 1941 - Internship (Credit Hours: 1) • ETS 2527 - Electromechanical Components and Mechanism (Credit Hours: 3) | <ul style="list-style-type: none"> • ETD 1100 - Engineering Drawing (Credit Hours: 3) • ETM 2315 - Mechanical Devices and Systems (Credit Hours: 3) • ETM 2317 - Drive and Pump Systems (Credit Hours: 3) • MAN 2125 - Supervision and Performance Improvement (Credit Hours: 3) • PMT 1203 - Introduction to Machining (Credit Hours: 3) • PMT 2213 - Advanced Machining I (Credit Hours: 3) • PMT 2214 - Advanced Machining II (Credit Hours: 3) • PMT 2250 - CNC Programming I (Credit Hours: 3) • PMT 2254 - CNC Programming II (Credit Hours: 3) |
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Total Credit Hours = 60

To view a list of the [General Education Requirements](https://catalog.fscj.edu/), please visit our online catalog: <https://catalog.fscj.edu/>

CAREER OPTIONS

According to the Bureau of Labor Statistics, employment of industrial engineers is expected to grow six percent from 2010 to 2020. This occupation is versatile both in the kind of work it does and in the industries in which its expertise can be put to use.

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