Engineering Technology (Advanced Manufacturing) Program Roadmap

Use this roadmap to guide your progress and keep you moving toward graduation.

- ☑ **Avoid surprises** – Meet with your advisor each term to monitor your progress and address concerns early.
- ☑ **Review course requirements** – Check course prerequisites, corequisites, and conditions before registering each term to ensure you meet all requirements and stay on track for graduation.
- ☑ **Stay eligible** – Maintain your GPA and complete required courses to remain in good standing.
- ☑ **Graduate on time** – Stay on schedule to avoid delays and excess credit hours that may not be covered by financial aid.

About the Program

Credit Hours: 60 total credit hours. Total hours may vary based on individual academic plan. Prior to enrolling in classes, please meet with an advisor for specific guidance about your individual academic plan.

Minimum Grade Requirement(s)

A minimum grade of C or higher must be achieved in:

- ☐ All Professional coursework
- ☐ All General Education coursework

Available Electives

Minimum credit hours: 9.

- CGS 2470 – Computer Aided Drafting and Design, Credit Hours: 3. Terms Offered: Fall, Spring, Summer.
- ETD 1100C – Engineering Drawing, Credit Hours: 3. Terms Offered: Fall, Spring, Summer.
- ETD 2371C – Introduction to Additive Manufacturing, Credit Hours: 3. Terms Offered: Spring.
- ETI 1110 – Introduction to Quality Assurance, Credit Hours: 3. Terms Offered: Fall, Spring, Summer.
- ETI 2460C – Introduction to Composites, Credit Hours: 3. Terms Offered: Fall.
- ETI 2464C – Advanced Composites, Credit Hours: 3. Terms Offered: Spring.
- ETI 2465C – Introduction to Plastics, Credit Hours: 3. Terms Offered: Fall.
- ETM 2315C – Mechanical Devices and Systems, Credit Hours: 3. Terms Offered: Fall.
- ETM 2317C – Drive and Pump Systems, Credit Hours: 3. Terms Offered: Fall.
- ETS 1531C – Human Machine Interface and Systems Graphics, Credit Hours: 3. Terms Offered: Fall.
- ETS 1535C – Automated Process Control, Credit Hours: 3. Terms Offered: Fall.
- ETS 1540C – Industrial Applications Using Programmable Logic Controllers in Instrumentation, Credit Hours: 3. Terms Offered: Spring.
- ETS 1633C – Applied Robotics, Credit Hours: 3. Terms Offered: Fall.
- ETS 1680C – Mechatronics I, Credit Hours: 3. Terms Offered: Fall, Spring.
- ETS 1681C – Mechatronics II, Credit Hours: 3. Terms Offered: Summer.
- ETS 1941 – Internship, Credit Hours: 1. Terms Offered: Spring.
- PMT 1203C – Introduction to Machining, Credit Hours: 3. Terms Offered: Fall.
- PMT 2213C – Advanced Machining I, Credit Hours: 3. Terms Offered: Fall.
- PMT 2214C – Advanced Machining II, Credit Hours: 3. Terms Offered: Spring.
- PMT 2250C – CNC Programming I, Credit Hours: 3. Terms Offered: Spring.

Stay on Track

Meet the associate in science degree graduation requirements:

- ☐ Complete all academic requirements for this program outlined in the Florida State College at Jacksonville catalog and curriculum.
- ☐ Earn a cumulative grade point average (GPA) of 2.0 (C) at Florida State College at Jacksonville in courses applicable to the Associate in Science degree programs, excluding developmental education courses.
- ☐ Earn an all-college cumulative grade point average of 2.0 (C) on a 4.0 scale on all courses attempted. This includes Florida State College at Jacksonville college-credit semester hours and transferred credits (excluding developmental education) in lower division courses.
- ☐ Complete at least 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.
- ☐ Complete the required semester hours for the degree, as including a minimum of 15 semester hours in General Education.
- ☐ Demonstrate competency in civic literacy by:
  - ☐ Completing a civic literacy course – AMH 2010, AMH 2020, or POS 2041 – with a grade of C or higher.
  - ☐ Achieving of the required standard score on a state-approved assessment.
- ☐ Earn a grade of a C or higher in each course used to satisfy the general education requirements and any other area designated as requiring a grade of C or higher.
- ☐ Satisfy all financial and other obligations to the College prior to graduation.

More Information Online

Program Webpage: fscj.edu/program?pcode=2320

Program Catalog Page: catalog.fscj.edu/programs/2320

Sample Roadmap

Term 1: Fall or Spring

Note: *Students who plan to transfer to the Supervision and Management (S100) (B.A.S.)* ***and*** *select the Engineering Technology Management Upper Division Concentration must take MAC 1105 and MAC 1147. A grade of B or higher in MAC 1105 and satisfactory completion of high school trigonometry are required for enrollment in MAC 1147.*

Course	Credits	Course Type	Terms Offered
ENC 1101 – English Composition I **or** ENC 1101C – English Composition I Enhanced	3–4	General Education	Fall, Spring, Summer
MAC 1105 – College Algebra **or** MAC 1105C – College Algebra Enhanced **or** MAC 1114 – College Trigonometry **or** MAC 1140 – Precalculus Algebra **or** MAC 1147 – Precalculus Algebra and Trigonometry **or** MAC 2233 – Calculus for Business and Social Sciences **or** MAC 2311 – Calculus With Analytic Geometry I **or** MAC 2312 – Calculus With Analytic Geometry II **or** MAC 2313 – Calculus With Analytic Geometry III **or** MAP 2302 – Differential Equations **or** MGF 1130 – Mathematical Thinking **or** STA 2023 – Elementary Statistics	3–5	General Education	Fall, Spring, Summer
ETS 1352C – Introduction to Manufacturing Processes	3	Professional	Fall, Spring, Summer
EET 1084C – Survey of Electronics	3	Professional	Fall, Spring

Term 2: Spring

Course	Credits	Course Type	Terms Offered
AST 1002 – Introduction to Astronomy **or** BSC 1005 – Life in Its Biological Environment **or** BSC 2010C – Principles of Biology I **or** BSC 2085C – Human Anatomy and Physiology I **or** CHM 1020 – Chemistry for Liberal Arts **or** CHM 2045C – General Chemistry and Qualitative Analysis I **or** ESC 1000 – Earth and Space Science **or** EVR 1001 – Introduction to Environmental Science **or** OCE 2001 – Survey of Oceanography **or** PHY 1020C – Physics for Liberal Arts with Laboratory **or** PHY 2048C – Physics I with Calculus **or** PHY 2053C – General Physics I	3–4	General Education	Fall, Spring, Summer
ETS 1520C – Basics of Instrumentation	3	Professional	Spring
ETS 1511C – Motors and Controls	3	Professional	Spring
ETS 1700C – Hydraulics and Pneumatics	3	Professional	Spring

Term 3: Summer

Course	Credits	Course Type	Terms Offered
AMH 2010 – United States History to 1877 **or** AMH 2020 – United States History from 1877 to the Present **or** POS 2041 – American Federal Government	3	General Education & Civic Literacy	Fall, Spring, Summer
ETS 1603C – Robotics – Mechanics and Controls	3	Professional	Fall, Summer
ETI 2622C – Introduction to Lean Manufacturing	3	Professional	Fall, Spring, Summer
Professional Elective course	3	Professional Elective	Varies

Term 4: Fall

Course	Credits	Course Type	Terms Offered
ARH 2000 – Art in the Humanities **or** HUM 2020 – Topics in the Humanities **or** LIT 2000 – Literature in the Humanities **or** MUL 2010 – Music in the Humanities **or** PHI 2010 – Philosophy in the Humanities **or** THE 2000 – Theatre in the Humanities	3	General Education	Fall, Spring, Summer
ETS 1542C – Introduction to Programmable Logic Controllers	3	Professional	Fall
ETS 1632C – Computer Integrated Manufacturing	3	Professional	Fall, Spring, Summer
Professional Elective course	3	Professional Elective	Varies

Term 5: Spring, Summer or Fall

Course	Credits	Course Type	Terms Offered
ETS 2590C – Engineering Technology Capstone	3	Professional	Fall, Spring, Summer
BCN 2732 – Industrial Safety & Human Factors	3	Professional	Fall, Spring, Summer
Professional Elective course	3	Professional Elective	Varies
Professional Elective course	3	Professional Elective	Varies