

Mechanical Engineering: MAC 1140 and MAC 1114 Option

A.A. (BACCALAUREATE TRANSFER) | College Catalog Year: 2024-25

Recommended Roadmap

This academic roadmap provides general guidance about recommended courses and tasks for your **A.A.** (Baccalaureate Transfer) Major in Mechanical Engineering. For specific guidance about your individual academic degree plan, please see an advisor. Also refer to the College Catalog 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.

The A.A. (Baccalaureate Transfer) Major in Mechanical Engineering includes an **Algebra Through Calculus math pathway**. This pathway is intended for students whose academic program requires a foundation of algebra, followed by a sequence of courses that lead to calculus.

Term 1

☑	Course: Course Title	Credit Hours
	A.A. Elective/FYE Course: IDS 1107: Strategies for the Pursuit of Knowledge	3
	Communications Category A: ENC 1101: English Composition I or ENC 1101C: English Composition I Enhanced	3-4
	Mathematics Category A: MAC 1105: College Algebra (MAC 1140 and MAC 1114 Prerequisite)	3
	A.A. Elective: CHM 1025C: Introduction to General Chemistry (CHM 2045C Prerequisite)	4

Term 2

☑	Course: Course Title	Credit Hours
	Communications Category B: ENC 1102: Writing About Texts	3
	Social and Behavioral Sciences Category A: Choose a course from Social and Behavioral Sciences Category A in the Catalog	3
	Mathematics Category A: MAC 1140: Precalculus Algebra (MAC 2311 Prerequisite)	4
	A.A. Elective/Transfer Prerequisite: CHM 2045C: General Chemistry and Qualitative Analysis I	4

Term 3

Ø	Course: Course Title	Credit Hours
	Communications Category C: Choose a Speech course from Communications Category C in the Catalog	3
	A.A. Elective: MAC 1114: College Trigonometry (MAC 2311 Prerequisite)	3

Term 4

☑	Course: Course Title	Credit Hours
	Humanities Category A: Choose a course from Humanities Category A in the Catalog	3
	Social and Behavioral Sciences Category B, C, or D in the Catalog: Choose a course from Social and Behavioral Sciences Category B, C, or D in the Catalog	3
	A.A. Elective/Transfer Prerequisite: MAC 2311: Calculus with Analytic Geometry I (MAC 2312 Prerequisite)	4

☑ Task

- ☐ Complete an Academic Degree Plan with your advisor.
- ☐ Follow up with an advisor about any accelerated credits that you may have earned (e.g., dual enrollment, AP, CLEP, etc.).
- ☐ Complete IDS 1107: Strategies for the Pursuit of Knowledge.
- Check transfer major prerequisites and required G.P.A. before 15 completed credit hours.
- Fulfill your civic literacy course requirement by taking either AMH 2020 or POS 2041 from Social and Behavioral Sciences Category A.
- Visit an advisor for assistance with the next term's course selection and for guidance with prerequisite coursework.
 - Explore career resources at fscj.edu/student-services/careerdevelopment.
 - ☐ Review transfer major prerequisites and required G.P.A.
 - Meet with an advisor to declare your intended baccalaureate transfer major and institution before 30 completed credit hours.
 - Confirm that your prerequisite and elective choices as well as your G.P.A. satisfy transfer institution requirements.
 - ☐ Ensure that you fulfill your foreign language requirement. Please see an advisor for individual guidance.
 - Apply to transfer institutions two semesters early.
 - Attend a Graduation Check
 Workshop before 45 credit hours
 completed.

Advising

Term

(904) 646-2300 or advising@fscj.edu



Important for You to Know

FREE tutoring is available to FSCJ students in English, math, and a variety of other subjects. To learn more, please visit the Library and Learning Commons online.

This academic roadmap does not include developmental education courses in reading, writing, and/or mathematics that you may be required to take. In addition, it does not include MAT 1033: Intermediate Algebra, which, for many students, is a prerequisite course for MAC 1105. Students who wish to receive additional support with algebra may opt to take MAC 1105C: College Algebra Enhanced (5 credits). Please consult with an advisor for individual assistance.

For students who earned a "B" or higher in MAC 1105 or MAC 1105C, the course MAC 1147: Precalculus Algebra and Trigonometry may also be used as the MAC 2311 prerequisite.

Students are required to take one HUM-prefix course. In addition, at least one course must come from the State Core (denoted with * in the College Catalog).

Students who enter a Florida College System institution in academic year 2014-2015 (and thereafter) must demonstrate **competency in a foreign language** (Florida Statute 1007.25). Students can demonstrate the required competency in one of three ways:

- Earning two high school credits in the same foreign language;
- Completing a sequence of two collegecredit courses in a single foreign language;
- Achieving the required level on a language proficiency exam from the American Council for the Teaching of Foreign Languages (ACTFL).

College-level foreign language courses count as A.A. electives and are applied toward your twenty-four hours of required A.A. electives.

Prior to the award of an associate in arts degree, students initially entering a Florida College System institution in the 2021-22 academic year, and thereafter, must demonstrate **competency in civic literacy** by successfully completing one of two civic literacy courses with a "C" or higher AND by achieving the standard score on one of four approved assessments before graduation (section 1007.25(4), Florida Statutes, and Rule 6A-10.02413, Florida Administrative Code).

Term 5

☑	Course: Course Title	Credit Hours
	Humanities Category A or B: Choose a course from Humanities Category A or B in the Catalog	3
	Social and Behavioral Sciences Category B, C, or D: Choose a course from Social and Behavioral Sciences Category B, C, or D in the Catalog	3
	AA Elective/Transfer Prerequisite: MAC 2312 Calculus with Analytic Geometry II (MAC 2313 and MAP 2302 Prerequisite; PHY 2048C Corequisite)	4
	Natural Sciences Category B/Transfer Prerequisite: PHY 2048C: Physics I with Calculus (PHY 2049C Prerequisite)	4

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Advising: (904) 646-2300

Email: advising@fscj.edu

Term 6

☑	Course: Course Title	Credit Hours
	A.A. Elective: MAC 2313: Calculus with Analytic Geometry III (PHY 2049C Corequisite)	4
	A.A. Elective/Transfer Prerequisite: MAP 2302: Differential Equations	3
	Natural Sciences Category B/Transfer Prerequisite: PHY 2049C: Physics II with Calculus	4

Total Program Credit Hours

This A.A. (Baccalaureate Transfer) roadmap, which may include transfer prerequisites, consists of **68-69 credit hours.** Total program hours may vary based on the student's individual degree plan. Please see an advisor for individual guidance.