

## Mechanical Engineering: MAC 1140 and MAC 1114 Option

### A.A. (BACCALAUREATE TRANSFER) RECOMMENDED ROADMAP

This academic roadmap is designed to help you select courses each term for your **A.A. (Baccalaureate Transfer) Major in Mechanical Engineering**. This roadmap was developed for full-time students. If you are a part-time student, please refer to the "The Recommended Course Sequencing List for Part-Time Students." "Mile Markers" on the Roadmap refer to important program requirements for you to complete each term.

This roadmap is intended to provide general guidance about recommended courses and mile markers. For specific guidance about your individual academic degree plan, please see an advisor. Please also refer to the College Catalog for additional information.

#### Term 1

Courses	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: MAC 1105: College Algebra (MAC 1140 Prerequisite)	3
A.A. Elective: CHM 1025C: Introduction to General Chemistry (CHM 2045C Prerequisite)	4
<b>Subtotal of Term 1 Credit Hours = 13-14</b>	

#### Mile Markers and Notes

- 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.
- 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.
- Check transfer major prerequisites and required G.P.A. before 15 completed credit hours.
- Passing score on the Toledo Chemistry test may substitute for CHM 1025C prerequisite requirement.

#### Term 2

Courses	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
<b>Subtotal of Term 2 Credit Hours = 14</b>	

#### Mile Markers and Notes

- Visit an advisor for assistance with the next term's course selection and for guidance with prerequisite coursework.
- Visit [Career Development](#) and explore [Career Coach](#).
- Fulfill your civic literacy requirement by taking either AMH 2020 or POS 2041 from Social and Behavioral Sciences Category A.
- For students who earned a "B" or higher in MAC 1105 and who satisfactorily completed high school trigonometry, the course MAC 1147: Precalculus Algebra and Trigonometry may also be used as the MAC 2311 prerequisite.
- FSCJ faculty and staff care about you and your academic success. A variety of academic and student support services are available to you, including tutoring, advising, and academic success coaching.

### Term 3

Courses	Credit Hours
Communications Category C: Choose a Speech course from Communications Category C 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: MAC 1114: College Trigonometry (MAC 2311 Prerequisite)	3
<b>Subtotal of Term 3 Credit Hours =</b>	<b>9</b>

#### Mile Markers and Notes

- Review transfer major prerequisites and required G.P.A.
- Meet with an advisor to declare your intended university transfer major and institution before 30 completed credit hours.

### Term 4

Courses	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: 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
<b>Subtotal of Term 4 Credit Hours =</b>	<b>10</b>

#### Mile Markers and Notes

- 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).
- 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.

### Term 5

Courses	Credit Hours
Humanities Category A or B: Choose a course from Humanities Category A or B 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
<b>Subtotal of Term 5 Credit Hours =</b>	<b>11</b>

#### Mile Markers and Notes

- Apply to transfer institutions two semesters early.
- Attend a Graduation Check Workshop before 45 credit hours completed.

## Term 6

Courses	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	4
Natural Sciences Category B/Transfer Prerequisite: PHY 2049C: Physics II with Calculus	4
<b>Subtotal of Term 6 Credit Hours =</b>	<b>12</b>
<b>Total Program Hours 69-70</b>	

### Mile Markers and Notes

- Apply for graduation by the required date.

*Congratulations, Graduate! Celebrate your success at Commencement!*

## 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. In addition, it does not include MAT 1033: Intermediate Algebra, which, for many students, is a prerequisite course for MAC 1105. Please consult with an advisor for individual assistance.
- 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 college-credit 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.

- Students who enter a Florida College System institution in academic year 2018-2019 (and thereafter) must demonstrate **competency in civic literacy** (Florida Statute 1007.25). Students can demonstrate the required competency in one of two ways:
  - Completing one of two civic literacy courses (either AMH 2020 or POS 2041) with a grade of C or higher;
  - Achieving the standard score on a state-approved assessment.