

MECHANICAL ENGINEERING (60 Credits)**Guided Pathway: Associate of Arts****Concentration: Mechanical Engineering (FULL TIME)**For more information, visit www.fgc.edu and your academic advisor.

Meta-major: STEM

University Transfer: **POLY, FAMU, FAU, FIU, FSU, UCF, UF, UNF, USF**

The *Associate of Arts* degree is a collegiate degree program consisting of lower-division courses intended for transfer to baccalaureate programs at the universities listed aboveⁱⁱ. This plan is for those who are interested in earning a baccalaureate degree in *Mechanical Engineering*.

This is the sequence of courses for students interested in majoring in *Mechanical Engineering* at one of the universities listed above. It does not represent a contract, nor does it guarantee course availability or entry into your university of choice. This pathway presents classes needed for your baccalaureate degree in *Mechanical Engineering*. Courses that complete the degree are listed below. As always, visit your academic advisor each semester to help you keep on track for graduation.

Note: All AA degrees must satisfy the Foreign Language requirement for graduation. Please see catalog

**FULL-TIME
Pathway****SEMESTER BY SEMESTER MAP FOR FULL-TIME STUDENTS**

SEMESTER 1	ACTION ITEMS
ENC 1101 – Freshman Composition I ^{iv} (<i>Communication core</i>)	<ul style="list-style-type: none"> Meet with your advisor to confirm academic and career goals by the end of the semester. REQUIRED: Complete the <i>Computer Competency course</i> within Canvas. Signup for and pass the Florida Civic Literacy Exam. Consult your advisor to make sure you have met <i>the Foreign Language requirement</i>. At the end of the semester, begin research on college and universities where you want to seek to transfer. Meet with a career advisor/coach to research your career options with a degree in <i>Mechanical Engineering</i>. Remember to start collecting artifacts from your courses for your Academic & Career Portfolio in SLS 2370. Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> You can start the FAFSA in October for the next academic year. (<i>i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025</i>)
Choose one: AMH 2010 – US History to 1877 OR AMH 2020 – US History from 1877 OR POS 1041 – American Government ^{iv} (<i>Social Science & civic literacy</i>)	
MAC 1105 – College Algebra ^{iv vi} (<i>Mathematics core</i>)	
CHM 2045/L – General Chemistry I/Lab (<i>Physical Science core</i>) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 13	
SEMESTER 2	ACTION ITEMS
Choose one: ENC 1102 – Freshman Composition II OR CRW 2001 – Creative Writing OR ENC 1141 – Writing about Literature ^{iv} (<i>Communication</i>)	<ul style="list-style-type: none"> Meet with your advisor to confirm or update your academic/career pathway and program of study. Ask about transfer advising to discuss options to pursue the bachelor's degree. Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370.
MAC 1140 – Precalculus ^{iv} (<i>Mathematics core</i>)	
MAC 1114 - Trigonometry ^{iv} (<i>Elective Prerequisite</i>)	
Choose one: ARH 1000 – Art Appreciation OR HUM 2020 – Introduction to Humanities OR MUL 2010 – Music Appreciation OR THE 2000 – Theatre Appreciation ^{iv} (<i>Humanities core</i>)	
BSC 2010C – General Biology I with Lab (<i>Biological Science core</i>) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 16	

SEMESTER 3	ACTION ITEMS
<p>Choose one: PSY 2012 – General Psychology OR SYG 1000 – Introduction to Sociology OR SYG 2300 – Introduction to Social Psychology OR Any DEP or ECO course (Social Science)^{iv}</p>	<ul style="list-style-type: none"> • Meet with your advisor to confirm or update your academic/career pathway and program of study. • Ask about transfer advising to discuss options to pursue the bachelor's degree. • Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> ○ You can start the FAFSA in October for the next academic year. (i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025) • Check with your advisor for important deadlines and dates • Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370.
<p>Choose one: SPC 2608 – Public Speaking OR SPC 1017 – Oral Communications OR SPC 1061 – Introduction to Academic and Professional Speaking^{iv} (Communications)</p>	
<p>MAC 2311 – Calculus I^{iv} (Elective Prerequisite) (4 cr)</p>	
TOTAL SEMESTER CREDIT HOURS: 10	
SEMESTER 4	ACTION ITEMS
<p>SLS 2370 – Personal Academic & Career Engagement^{iv} (3rd Soc Sci)</p>	<ul style="list-style-type: none"> • Begin applying to your top choice universities. • Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> ○ You can start the FAFSA in October for the next academic year. (i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025) • Check with your advisor for important deadlines and dates
<p>PHY 2048C – General Physics with Calculus I (Elective Prerequisite) (5 cr)</p>	
<p>Choose one: LIT 2000 – Introduction to Literature OR Any general education AML, ENL, LIT, PHI or REL courses (Humanities)^{iv}</p>	
<p>MAC 2312 – Calculus II^{iv} (Elective Prerequisite) (4 cr)</p>	
TOTAL SEMESTER CREDIT HOURS: 15	
SEMESTER 5	ACTION ITEMS
<p>MAC 2313 – Calculus III^{iv v} (Elective Prerequisite) (4 cr)</p>	<ul style="list-style-type: none"> • After reviewing your final program of study, apply for Graduation. <ul style="list-style-type: none"> ○ Meet with your advisor to apply for the degree. ○ Sign up for commencement. • Request final transcripts to be sent to the college or university to where you will transfer. • Congratulations, graduate!
<p>MAP 2302 – Elementary Differential Equations^{iv v} (Elective Prerequisite)</p>	
<p>PHY 2049C – General Physics with Calculus II (Elective Prerequisite) (5 cr)</p>	
TOTAL SEMESTER CREDIT HOURS: 12	
AAME DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 66^{vi} CREDIT HOURS	

ⁱ Degree plans may change in later catalogs. You may use this pathway if you entered the college on or before this date.

ⁱⁱ Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by FGC to award the degree.

ⁱⁱⁱ This is not an official degree plan. For official degree requirements, [click here](#).

^{iv} You must earn a grade of "C" or better in all Gordon Rule classes.

^v This course is only offered in the spring term.

^{vi} If student enrolls ready for MAC 1114/1140, then MAC 1105 is not necessary, bringing the Total Pathway credits to 63.

MECHANICAL ENGINEERING (60 Credits)**Guided Pathway: Associate of Arts****Concentration: Mechanical Engineering (PART TIME).**For more information, visit www.fgc.edu and your academic advisor.

Meta-major: STEM

University Transfer: **POLY, FAMU, FAU, FIU, FSU, UCF, UF, UNF, USF**

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This is the sequence of courses for students interested in majoring in *Mechanical Engineering* at one of the universities listed above. It does not represent a contract, nor does it guarantee course availability or entry into your university of choice. This pathway presents classes needed for your baccalaureate degree in *Mechanical Engineering*. Courses that complete the degree are listed below. As always, visit your academic advisor each semester to help you keep on track for graduation.

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**PART-TIME
Pathway****SEMESTER BY SEMESTER MAP FOR PART-TIME STUDENTS**

SEMESTER 1	ACTION ITEMS
ENC 1101 – Freshman Composition I ^{iv} (<i>Communication core</i>)	<ul style="list-style-type: none"> Meet with your advisor to confirm academic and career goals by the end of the semester. REQUIRED: Complete the <i>Computer Competency course</i> within Canvas. Consult your advisor to make sure you have met <i>the Foreign Language requirement</i>. Remember to start collecting artifacts from your courses for your Academic & Career Portfolio in SLS 2370. Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> You can start the FAFSA in October for the next academic year. (<i>i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025</i>)
MAC 1105 – College Algebra ^{iv vi} (<i>Mathematics core</i>)	
TOTAL SEMESTER CREDIT HOURS: 6	
SEMESTER 2	ACTION ITEMS
Choose one: AMH 2010 – US History to 1877 OR AMH 2020 – US History from 1877 OR POS 1041 – American Government ^{iv} (<i>Social Science & civic literacy</i>)	<ul style="list-style-type: none"> At the end of the semester, begin research on college and universities where you want to seek to transfer. Meet with a career advisor/coach to research your career options with a degree in <i>Mechanical Engineering</i>. Signup for and pass the Florida Civic Literacy Exam. Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370.
MAC 1140 – Precalculus ^{iv} (<i>Mathematics core</i>)	
BSC 2010C – General Biology I with Lab (<i>Biological Science core</i>) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 10	
SEMESTER 3	ACTION ITEMS
MAC 1114 - Trigonometry ^{iv} (<i>Mathematics core</i>)	<ul style="list-style-type: none"> Meet with your advisor to confirm or update your academic/career pathway and program of study. Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370. Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> You can start the FAFSA in October for the next academic year. (<i>i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025</i>)
Choose one: ENC 1102 – Freshman Composition II OR CRW 2001 – Creative Writing OR ENC 1141 – Writing about Literature ^{iv} (<i>Communication</i>)	
Choose one: ARH 1000 – Art Appreciation OR HUM 2020 – Introduction to Humanities OR MUL 2010 – Music Appreciation OR THE 2000 – Theatre Appreciation ^{iv} (<i>Humanities core</i>)	
TOTAL SEMESTER CREDIT HOURS: 9	
SEMESTER 4	ACTION ITEMS
MAC 2311 – Calculus I ^{iv} (<i>Elective Prerequisite</i>) (4 cr)	<ul style="list-style-type: none"> Meet with your advisor and ask about transfer advising to discuss options to pursue the bachelor's degree. Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370.
CHM 2045/L – General Chemistry I/Lab (<i>Physical Science core</i>) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 8	

SEMESTER 5	ACTION ITEMS
MAC 2312 – Calculus II ^{iv} (Elective Prerequisite) (4 cr)	<ul style="list-style-type: none"> • Meet with your advisor to confirm academic and career goals by the end of the semester. • Meet with a career advisor/coach to research your career options. • Continue collecting artifacts from your courses for your Academic & Career Portfolio in SLS 2370. • Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> ○ You can start the FAFSA in October for the next academic year. (i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025)
Choose one: SPC 2608 – Public Speaking OR SPC 1017 – Oral Communications OR SPC 1061 – Introduction to Academic and Professional Speaking ^{iv} (Communications)	
Choose one: LIT 2000 – Introduction to Literature OR Any general education AML, ENL, LIT, PHI or REL courses (Humanities) ^{iv}	
TOTAL SEMESTER CREDIT HOURS: 10	
SEMESTER 6	ACTION ITEMS
MAC 2313 – Calculus III ^{iv v} (Elective Prerequisite) (4 cr)	<ul style="list-style-type: none"> • Meet with your advisor to confirm or update your academic/career pathway and program of study. • Continue collecting artifacts from your courses for your Academic & Career Portfolio in SLS 2370.
MAP 2302 – Elementary Differential Equations ^{iv v} (Elective Prerequisite)	
TOTAL SEMESTER CREDIT HOURS: 7	
SEMESTER 7	ACTION ITEMS
SLS 2370 – Personal Academic & Career Engagement ^{iv} (3rd Soc Sci)	<ul style="list-style-type: none"> • Begin applying to your top choice universities. • Begin applying for Financial Aid and Scholarships <ul style="list-style-type: none"> ○ You can start the FAFSA in October for the next academic year. (i.e., in October 2024, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2025) • Check with your advisor for important deadlines and dates
PHY 2048C – General Physics with Calculus I (Elective Prerequisite) (5 cr)	
TOTAL SEMESTER CREDIT HOURS: 8	
SEMESTER 8	ACTION ITEMS
Choose one: PSY 2012 – General Psychology OR SYG 1000 – Introduction to Sociology OR SYG 2300 – Introduction to Social Psychology OR Any DEP or ECO course (Social Science) ^{iv}	<ul style="list-style-type: none"> • After reviewing your final program of study, apply for Graduation. <ul style="list-style-type: none"> ○ Meet with your advisor to apply for your degree. ○ Sign up for commencement. • Request final transcripts to be sent to the college or university to where you will transfer. • Congratulations, graduate!
PHY 2049C – General Physics with Calculus II (Elective Prerequisite) (5 cr)	
TOTAL SEMESTER CREDIT HOURS: 8	
AAME DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 66^{vi} CREDIT HOURS	

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