

**MATERIALS ENGINEERING (60 Credits)****Guided Pathway: Associate of Arts****Concentration: Materials Engineering (FULL TIME)**For more information, visit [www.fgc.edu](http://www.fgc.edu) and your academic advisor.

Meta-major: STEM

University Transfer: UF

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 above<sup>ii</sup>. This plan is for those who are interested in earning a baccalaureate degree in **Materials Engineering**.

This is the sequence of courses for students interested in majoring in **Materials 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 **Materials 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 <sup>iv</sup> ( <i>Communication core</i> )  |  | <ul style="list-style-type: none"><li>Meet with your advisor to confirm academic and career goals by the end of the semester.</li><li><b>REQUIRED:</b> Complete the <i>Computer Competency</i> course within Canvas.</li><li>Signup for and pass the Florida Civic Literacy Exam.</li><li>Consult your advisor to make sure you have met <i>the Foreign Language requirement</i>.</li><li>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>Materials Engineering</i>.</li><li>Remember to start collecting artifacts from your courses for your Academic &amp; Career Portfolio in SLS 2370.</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (<i>i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024</i>)</li></ul></li></ul> |  |
| <b>Choose one:</b> AMH 2020 – US History from 1865 <b>OR</b><br>POS 1041 – American Government <sup>iv</sup> ( <i>Social Science &amp; civic literacy</i> )  |  |   |  |
| MAC 1105 – College Algebra <sup>iv vi</sup> ( <i>Mathematics core</i> )  |  |   |  |
| <b>Choose one:</b> BSC 1005 – Biological Principles for Non-Majors <b>OR</b><br>Any general education BOT, BSC, MCB, or ZOO course ( <i>Biological Science</i> ) (3-4 cr)  |  |   |  |
| TOTAL SEMESTER CREDIT HOURS: 12-13   |  |   |  |
| SEMESTER 2   |  | ACTION ITEMS  |  |
| <b>Choose one:</b> ENC 1102 – Freshman Composition II <b>OR</b><br>CRW 2001 – Creative Writing <b>OR</b><br>ENC 1141 – Writing about Literature <sup>iv</sup> ( <i>Communication</i> )   |  | <ul style="list-style-type: none"><li>Meet with your advisor to confirm or update your academic/career pathway and program of study.</li><li>Ask about transfer advising to discuss options to pursue the bachelor’s degree.</li><li>Continue collecting artifacts from courses for your Academic &amp; Career Portfolio in SLS 2370.</li></ul>   |  |
| MAC 1140 – Precalculus <sup>iv vi</sup> ( <i>Mathematics</i> )   |  |   |  |
| MAC 1114 - Trigonometry <sup>iv vi</sup> ( <i>Elective Prerequisite</i> )  |  |   |  |
| CHM 2045/L – General Chemistry I/Lab ( <i>Physical Science</i> ) (4 cr)  |  |   |  |
| <b>Choose one:</b> MUL 1010 – Music Appreciation <b>OR</b><br>THE 2000 – Theatre Appreciation <b>OR</b><br>ARH 1000 – Art Appreciation <b>OR</b><br>HUM 2020 – Introduction to Humanities <sup>iv</sup> ( <i>Humanities core</i> ) |  |   |  |
| TOTAL SEMESTER CREDIT HOURS: 16  |  |   |  |

| SEMESTER 3   | ACTION ITEMS   |
|--|--|
| <b>Choose one:</b> PSY 2012 – General Psychology <b>OR</b><br>SYG 1000 – Introduction to Sociology <b>OR</b><br>SYG 2300 – Introduction to Social Psychology <b>OR</b><br>Any DEP or ECO course (Social Science) <sup>iv</sup> | <ul style="list-style-type: none"><li>Meet with your advisor to confirm or update your academic/career pathway and program of study.</li><li>Ask about transfer advising to discuss options to pursue the bachelor’s degree.</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</li></ul></li><li>Check with your advisor for important deadlines and dates</li><li>Continue collecting artifacts from courses for your Academic &amp; Career Portfolio in SLS 2370.</li></ul> |
| <b>Choose one:</b> SPC 2608 – Public Speaking <b>OR</b><br>SPC 1017 – Oral Communications <b>OR</b><br>SPC 1061 – Introduction to Academic and Professional Speaking <sup>iv</sup> (Communications)                            |  |
| MAC 2311 – Calculus I <sup>iv</sup> (Elective Prerequisite) (4 cr)   |  |
| TOTAL SEMESTER CREDIT HOURS: 10  |  |
| SEMESTER 4   | ACTION ITEMS   |
| SLS 2370 – Personal Academic & Career Engagement <sup>iv</sup> (3rd Soc Sci)   | <ul style="list-style-type: none"><li>Begin applying to your top choice universities.</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</li></ul></li><li>Check with your advisor for important deadlines and dates</li></ul>   |
| PHY 2048C – General Physics with Calculus I (Elective Prerequisite) (5 cr)   |  |
| CHM 2046/L – General Chemistry II/Lab (Elective Prerequisite) (4 cr)   |  |
| MAC 2312 – Calculus II <sup>iv</sup> (Elective Prerequisite) (4 cr)  |  |
| TOTAL SEMESTER CREDIT HOURS: 16  |  |
| SEMESTER 5   | ACTION ITEMS   |
| MAC 2313 – Calculus III <sup>iv v</sup> (Elective Prerequisite) (4 cr)   | <ul style="list-style-type: none"><li>After reviewing your final program of study, apply for Graduation.<ul style="list-style-type: none"><li>Meet with your advisor to apply for the degree.</li><li>Sign up for commencement.</li></ul></li><li>Request final transcripts to be sent to the college or university to where you will transfer.</li><li>Congratulations, graduate!</li></ul>   |
| <b>Choose one:</b> LIT 2000 – Introduction to Literature <b>OR</b><br>Any general education AML, ENL, LIT, PHI or REL courses (Humanities) <sup>iv</sup>   |  |
| PHY 2049C– General Physics with Calculus II (Elective Prerequisite) (5 cr)   |  |
| MAP 2302 – Elementary Differential Equations <sup>iv v</sup> (Elective Prerequisite)   |  |
| TOTAL SEMESTER CREDIT HOURS: 15  |  |
| AAMA DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 69-70 <sup>vi</sup> CREDIT HOURS  |  |

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

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

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

<sup>iv</sup> You must earn a grade of "C" or better in all Gordon Rule classes.

<sup>v</sup> This course is only offered in the spring term.

<sup>vi</sup> If student enrolls ready for MAC 2311, then MAC 1105, MAC 1114, and MAC 1140 are not necessary, bringing the Total Pathway credits to 60-61.

## MATERIALS ENGINEERING (60 Credits)

### Guided Pathway: Associate of Arts

#### Concentration: Materials Engineering (PART TIME)

For more information, visit [www.fgc.edu](http://www.fgc.edu) and your academic advisor.

Meta-major: STEM

University Transfer: UF

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 above<sup>ii</sup>. This plan is for those who are interested in earning a baccalaureate degree in **Materials Engineering**.

This is the sequence of courses for students interested in majoring in **Materials 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 **Materials 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\***



## PART-TIME Pathway

### SEMESTER BY SEMESTER MAP FOR PART-TIME STUDENTS

| SEMESTER 1  |  | ACTION ITEMS   |  |
|---|--|--|--|
| ENC 1101 – Freshman Composition I <sup>iv</sup> (Communication core)  |  | <ul style="list-style-type: none"><li>Meet with your advisor to confirm academic and career goals by the end of the semester.</li><li><b>REQUIRED:</b> Complete the <b>Computer Competency</b> course within Canvas.</li><li>Signup for and pass the Florida Civic Literacy Exam.</li><li>Consult your advisor to make sure you have met <b>the Foreign Language requirement</b>.</li><li>Remember to start collecting artifacts from your courses for your Academic &amp; Career Portfolio in SLS 2370</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</li></ul></li></ul> |  |
| <b>Choose one:</b> AMH 2020 – US History from 1865 <b>OR</b><br>POS 1041 – American Government <sup>iv</sup> (Social Science & civic literacy)  |  |  |  |
| MAC 1105 – College Algebra <sup>iv vi</sup> (Mathematics core)  |  |  |  |
| TOTAL SEMESTER CREDIT HOURS: 9  |  |  |  |
| SEMESTER 2  |  | ACTION ITEMS   |  |
| CHM 2045/L – General Chemistry I/Lab (Physical Science) (4 cr)  |  | <ul style="list-style-type: none"><li>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 <b>Materials Engineering</b>.</li><li>Continue collecting artifacts from courses for your Academic &amp; Career Portfolio in SLS 2370</li></ul>   |  |
| MAC 1140 – Precalculus <sup>iv vi</sup> (Mathematics core)  |  |  |  |
| <b>Choose one:</b> BSC 1005 – Biological Principles for Non-Majors <b>OR</b><br>Any general education BOT, BSC, MCB, or ZOO course (Biological Science) (3-4 cr)  |  |  |  |
| TOTAL SEMESTER CREDIT HOURS: 10-11  |  |  |  |
| SEMESTER 3  |  | ACTION ITEMS   |  |
| MAC 1114 - Trigonometry <sup>iv vi</sup> (Elective Prerequisite)  |  | <ul style="list-style-type: none"><li>Meet with your advisor to confirm or update your academic/career pathway and program of study.</li><li>Continue collecting artifacts from courses for your Academic &amp; Career Portfolio in SLS 2370</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</li></ul></li></ul>  |  |
| CHM 2046/L – General Chemistry II/Lab (Physical Science) (4 cr)   |  |  |  |
| <b>Choose one:</b> ENC 1102 – Freshman Composition II <b>OR</b><br>CRW 2001 – Creative Writing <b>OR</b><br>ENC 1141 – Writing about Literature <sup>iv</sup> (Communication)   |  |  |  |
| TOTAL SEMESTER CREDIT HOURS: 10   |  |  |  |
| SEMESTER 4  |  | ACTION ITEMS   |  |
| MAC 2311 – Calculus I <sup>iv</sup> (Elective Prerequisite) (4 cr)  |  | <ul style="list-style-type: none"><li>Meet with your advisor and ask about transfer advising to discuss options to pursue the bachelor’s degree.</li><li>Continue collecting artifacts from courses for your Academic &amp; Career Portfolio in SLS 2370</li></ul>   |  |
| <b>Choose one:</b> MUL 1010 – Music Appreciation <b>OR</b><br>THE 2000 – Theatre Appreciation <b>OR</b><br>ARH 1000 – Art Appreciation <b>OR</b><br>HUM 2020 – Introduction to Humanities <sup>iv</sup> (Humanities core) |  |  |  |
| TOTAL SEMESTER CREDIT HOURS: 7  |  |  |  |

| SEMESTER 5   | ACTION ITEMS   |
|--|--|
| MAC 2312 – Calculus II <sup>iv</sup> (Elective Prerequisite) (4 cr)  | <ul style="list-style-type: none"><li>Meet with your advisor to confirm academic and career goals by the end of the semester.</li><li>Meet with a career advisor/coach to research your career options.</li><li>Continue collecting artifacts from your courses for your Academic &amp; Career Portfolio in SLS 2370.</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</li></ul></li></ul> |
| <u>Choose one:</u> SPC 2608 – Public Speaking <b>OR</b><br>SPC 1017 – Oral Communications <b>OR</b><br>SPC 1061 – Introduction to Academic and Professional Speaking <sup>iv</sup> (Communications)                            |  |
| TOTAL SEMESTER CREDIT HOURS: 7   |  |
| SEMESTER 6   | ACTION ITEMS   |
| MAC 2313 – Calculus III <sup>iv v</sup> (Elective Prerequisite) (4 cr)   | <ul style="list-style-type: none"><li>Meet with your advisor to confirm or update your academic/career pathway and program of study.</li></ul>   |
| MAP 2302 – Elementary Differential Equations <sup>iv v</sup> (Elective Prerequisite)   |  |
| SLS 2370 – Personal Academic & Career Engagement <sup>iv</sup> (3rd Soc Sci)   |  |
| TOTAL SEMESTER CREDIT HOURS: 10  |  |
| SEMESTER 7   | ACTION ITEMS   |
| <u>Choose one:</u> LIT 2000 – Introduction to Literature <b>OR</b><br>Any general education AML, ENL, LIT, PHI or REL courses (Humanities) <sup>iv</sup>   | <ul style="list-style-type: none"><li>Begin applying to your top choice universities.</li><li>Begin applying for Financial Aid and Scholarships<ul style="list-style-type: none"><li>You can start the FAFSA in October for the next academic year. (i.e., in October 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</li></ul></li><li>Check with your advisor for important deadlines and dates</li></ul>   |
| PHY 2048C – General Physics with Calculus I (Elective Prerequisite) (5 cr)   |  |
| TOTAL SEMESTER CREDIT HOURS: 8   |  |
| SEMESTER 8   | ACTION ITEMS   |
| <u>Choose one:</u> PSY 2012 – General Psychology <b>OR</b><br>SYG 1000 – Introduction to Sociology <b>OR</b><br>SYG 2300 – Introduction to Social Psychology <b>OR</b><br>Any DEP or ECO course (Social Science) <sup>iv</sup> | <ul style="list-style-type: none"><li>After reviewing your final program of study, apply for Graduation.<ul style="list-style-type: none"><li>Meet with your advisor to apply for your degree.</li><li>Sign up for commencement.</li></ul></li><li>Request final transcripts to be sent to the college or university to where you will transfer.</li><li>Congratulations, graduate!</li></ul>  |
| PHY 2049C – General Physics with Calculus II (Elective Prerequisite) (5 cr)  |  |
| TOTAL SEMESTER CREDIT HOURS: 8   |  |
| AAMA DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 69-70 <sup>vi</sup> CREDIT HOURS  |  |

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

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