

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

Meta-major: Industry/Manufacturing and Construction

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 aboveⁱⁱ. This plan is for those who are interested in earning a baccalaureate degree in **Industrial & Systems Engineering**.

This is the sequence of courses for students interested in majoring in **Industrial & Systems 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 **Industrial & Systems 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 Computer Competency course within Canvas.Signup for and pass the Florida Civic Literacy Exam.Consult your advisor to make sure you have met the Foreign Language requirement.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 Industrial & Systems Engineering.Remember to start collecting artifacts from your courses for your Academic & Career Portfolio in SLS 2370Begin 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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)</i>
Choose one: AMH 2020 – US History from 1865 OR POS 1041 – American Government ^{iv} <i>(Social Science & civic literacy)</i>	
MAC 1105 – College Algebra <i>(Mathematics core)</i>	
CHM 2045/L – General Chemistry I/Lab <i>(Physical Science)</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: MUL 1010 – Music Appreciation OR THE 2000 – Theatre Appreciation OR ARH 1000 – Art Appreciation OR HUM 2020 – Introduction to Humanities ^{iv} <i>(Humanities core)</i>	
Choose one: BSC 1005 – Biological Principles for Non-Majors OR Any general education BOT or BSC course <i>(Biological Sci Core)</i> (3-4 cr)	
TOTAL SEMESTER CREDIT HOURS: 15-16	

SEMESTER 3	ACTION ITEMS
MAC 2311 – Calculus I ^{iv} (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.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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)Check with your advisor for important deadlines and datesContinue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370
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)	
Choose one: SPC 2608 – Public Speaking OR SPC 1017 – Oral Communications OR SPC 1061 – Introduction to Academic and Professional Speaking ^{iv} (Communications)	
TOTAL SEMESTER CREDIT HOURS: 10	
SEMESTER 4	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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)Check with your advisor for important deadlines and dates
Choose one: LIT 2000 – Introduction to Literature OR Any general education AML, ENL, LIT, PHI or REL courses (Humanities) ^{iv}	
PHY 2048 – General Physics with Calculus I (Elective Prerequisite) (5 cr)	
MAC 2312 – Calculus II ^{iv} (Elective Prerequisite) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 15	
SEMESTER 5	ACTION ITEMS
MAC 2313 – Calculus III ^{iv v} (Elective Prerequisite) (4 cr)	<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!
MAP 2302 – Elementary Differential Equations ^{iv v} (Elective Prerequisite)	
PHY 2049 – General Physics with Calculus II (Elective Prerequisite) (5 cr)	
TOTAL SEMESTER CREDIT HOURS: 12	
AAIS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 65-66 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.

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

Meta-major: Industry/Manufacturing and Construction

University Transfer: **UF**

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This is the sequence of courses for students interested in majoring in **Industrial & Systems 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 **Industrial & Systems 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 ^{iv} (Communication core)		<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</i> course 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 2370Begin 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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)	
MAC 1105 – College Algebra ^{iv} (Mathematics core)			
TOTAL SEMESTER CREDIT HOURS: 6			
SEMESTER 2		ACTION ITEMS	
Choose one: ENC 1102 – Freshman Composition II OR CRW 2001 – Creative Writing OR ENC 1141 – Writing about Literature ^{iv} (Communication)		<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>Industrial & Systems Engineering</i>.Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370	
MAC 1140 – Precalculus ^{iv} (Mathematics core)			
Choose one: BSC 1005 – Biological Principles for Non-Majors OR Any general education BOT or BSC course (Biological Science Core) (3-4 cr)			
TOTAL SEMESTER CREDIT HOURS: 9-10			
SEMESTER 3		ACTION ITEMS	
MAC 1114 - Trigonometry ^{iv} (Mathematics core)		<ul style="list-style-type: none">Meet with your advisor to confirm or update your academic/career pathway and program of study.Signup for and pass the Florida Civic Literacy Exam.Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370Begin 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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)	
Choose one: AMH 2020 – US History from 1865 OR POS 1041 – American Government ^{iv} (Social Science & civic literacy)			
Choose one: MUL 1010 – Music Appreciation OR THE 2000 – Theatre Appreciation OR ARH 1000 – Art Appreciation OR HUM 2020 – Introduction to Humanities ^{iv} (Humanities core)			
TOTAL SEMESTER CREDIT HOURS: 9			
SEMESTER 4		ACTION ITEMS	
MAC 2311 – Calculus I ^{iv} (Elective Prerequisite) (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 (Physical Science) (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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)
<u>Choose one:</u> SPC 2608 – Public Speaking OR SPC 1017 – Oral Communications OR SPC 1061 – Introduction to Academic and Professional Speaking ^{iv} (Communications)	
TOTAL SEMESTER CREDIT HOURS: 7	
SEMESTER 6	ACTION ITEMS
PHY 2048C – General Physics with Calculus I (Elective Prerequisite) (5 cr)	<ul style="list-style-type: none">Meet with your advisor to confirm or update your academic/career pathway and program of study.
SLS 2370 – Personal Academic & Career Engagement ^{iv} (3rd Soc Sci)	
TOTAL SEMESTER CREDIT HOURS: 8	
SEMESTER 7	ACTION ITEMS
<u>Choose one:</u> LIT 2000 – Introduction to Literature OR Any general education AML, ENL, LIT, PHI or REL courses (Humanities) ^{iv}	<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 2023, you can complete the FAFSA for if you plan to register for classes at a college or university Fall 2024)Check with your advisor for important deadlines and dates
PHY 2049C – General Physics with Calculus II (Elective Prerequisite) (5 cr)	
TOTAL SEMESTER CREDIT HOURS: 8	
SEMESTER 8	ACTION ITEMS
<u>Choose one:</u> 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)	<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!
MAC 2313 – Calculus III ^{iv v} (Elective Prerequisite) (4 cr)	
MAP 2302 – Elementary Differential Equations ^{iv v} (Elective Prerequisite)	
TOTAL SEMESTER CREDIT HOURS: 10	
AAIS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 65-66 CREDIT HOURS	

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