

BIOLOGICAL/BIOSYSTEMS ENGINEERING (60 Credits)**Guided Pathway: Associate of Arts****Concentration: Biological/Biosystems Engineering (FULL TIME).**For more information, visit 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 aboveⁱⁱ. This plan is for those who are interested in earning a baccalaureate degree in *Biological/Biosystems Engineering*.

This is the sequence of courses for students interested in majoring in *Biological/Biosystems 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 *Biological/Biosystems 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} (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.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>Biological/Biosystems 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.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)			
MAC 1105 – College Algebra (Mathematics core)			
BSC 2010C – General Biology I with Lab (Biological Science Core) (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} (Communication)		<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} (Mathematics core)			
MAC 1114 - Trigonometry ^{iv} (Elective Prerequisite)			
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)			
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: 15			

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) ^{iv}			
TOTAL SEMESTER CREDIT HOURS: 7			
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	
MAC 2312 – Calculus II ^{iv} (Elective Prerequisite) (4 cr)			
CHM 2045/L – General Chemistry I/Lab (Physical Science) (4 cr)			
PHY 2048C – General Physics with Calculus I (Elective Prerequisite) (5 cr)			
TOTAL SEMESTER CREDIT HOURS: 16			
SEMESTER 5		ACTION ITEMS	
Choose one: LIT 2000 – Introduction to Literature OR Any general education AML, ENL, LIT, PHI or REL courses (Humanities) ^{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 the degree.Sign up for commencement.Request final transcripts to be sent to the college or university to where you will transfer.Congratulations, graduate!	
CHM 2046/L – General Chemistry II/Lab (Elective Prerequisite) (4 cr)			
MAP 2302 – Elementary Differential Equations ^{iv v} (Elective Prerequisite))			
PHY 2049C – General Physics with Calculus II (Elective Prerequisite) (5 cr)			
TOTAL SEMESTER CREDIT HOURS: 15			
AABE DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 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

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

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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 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)	
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>Biological/Biosystems Engineering</i>.Continue collecting artifacts from courses for your Academic & Career Portfolio in SLS 2370.	
BSC 2010C – General Biology I with Lab (Biological Science Core) (4 cr)			
MAC 1140 – Precalculus ^{iv} (Mathematics core)			
TOTAL SEMESTER CREDIT HOURS: 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 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)	
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}			
Choose one: AMH 2020 – US History from 1865 OR POS 1041 – American Government ^{iv} (Social Science & civic literacy)			
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.	
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: 7			

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)
CHM 2045/L – General Chemistry I/Lab ^{iv} (Physical Science) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 8	
SEMESTER 6	ACTION ITEMS
SLS 2370 – Personal Academic & Career Engagement ^{iv} (3rd Soc Sci)	<ul style="list-style-type: none">Meet with your advisor to confirm or update your academic/career pathway and program of study.
MAP 2302 – Elementary Differential Equations ^{iv v} (Elective Prerequisite)	
CHM 2045/L – General Chemistry I/Lab ^{iv} (Physical Science) (4 cr)	
TOTAL SEMESTER CREDIT HOURS: 10	
SEMESTER 7	ACTION ITEMS
PHY 2048C – General Physics with Calculus I (Elective Prereq) (5 cr)	<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: SPC 2608 – Public Speaking OR SPC 1017 – Oral Communications OR SPC 1061 – Introduction to Academic and Professional Speaking ^{iv} (Communications)	
TOTAL SEMESTER CREDIT HOURS: 8	
SEMESTER 8	ACTION ITEMS
PHY 2049C – General Physics with Calculus II (Elective Prereq) (5 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 your degree.Sign up for commencement.Request final transcripts to be sent to the college or university to where you will transfer.Congratulations, graduate!
Choose one: LIT 2000 – Introduction to Literature OR Any general education AML, ENL, LIT, PHI or REL courses (Humanities) ^{iv}	
TOTAL SEMESTER CREDIT HOURS: 8	
AABE DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS PATHWAY TOTAL: 66 CREDIT HOURS	

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