

# A.A. Transfer Program Map: Pre-Engineering



**Academic  
& Career  
Pathways**  
Florida SouthWestern State College

SCIENCE, ENGINEERING, MATH PATHWAY  
**ASSOCIATE IN ARTS DEGREE (A.A.):**

**PRE-ENGINEERING**

CATALOG YEAR 2025-2026

## Suggested Course Sequence

This map is designed for students planning to transition to a Bachelor's Degree in the Florida State College or State University System after completing an AA degree. This plan includes common required prerequisites and recommended courses for success in the program. Classes with the symbol help you explore this career pathway to see if it's right for you!



**Get to graduation sooner!**

Take the AAF Math Placement Test at FSW Testing to see if you qualify for a fast track through your math courses!

Sample Questions:



Schedule Your Test:



Engineering is a broad pathway, with many different sub- categories. Please refer to your future institution's program page or catalog to understand the pre-requisites of the specific type of engineering you intend to pursue.

### Semester 1

Course	Credits	Notes
SLS 1515	CORNERSTONE EXPERIENCE	3
ENC 1101*	COMPOSITION I	3
CHM 2025	INTRO TO COLLEGE CHEMISTRY	3
CHM 2025L	INTRO TO COLLEGE CHEMISTRY LAB	1
MAC 1106	COLLEGE ALGEBRA/PRECALCULUS	4
Total Semester Credits:		14

### Semester 2

Course	Credits	Notes
MAC 1114	TRIGONOMETRY	4
ENC 1102*	COMPOSITION II	3
CHM 2045	GENERAL CHEMISTRY I	3
CHM 2045L	GENERAL CHEMISTRY I LAB	1
EGS 1001	INTRODUCTION TO ENGINEERING	3
Total Semester Credits:		14

### Semester 3

Course	Credits	Notes
MAC 2311	CALCULUS W/ANALYTIC GEOMETRY I	4
HUMANITIES*	ANY WRIT. INTENS. CORE HUMANITIES	3
Total Semester Credits:		7
Total Academic Year Credits:		35

### Semester 4

Course	Credits	Notes
MAC 2312	CALCULUS W/ANALYTIC GEOMETRY II	4
PHY 2048	GENERAL PHYSICS I	4
PHY 2048L	GENERAL PHYSICS I LAB	1
SOCIAL SCI. / CIVIC LIT.	CHOOSE AMH 2010, AMH 2020, OR POS 2041	3
Total Semester Credits:		12



**SCIENCE, ENGINEERING, & MATH PATHWAY**  
**ASSOCIATE IN ARTS DEGREE (A.A.):**  
**PRE-ENGINEERING**



**Suggested Course Sequence**

Semester 5			
Course		Credits	Notes
IDS 2891	CREATIVE CAPSTONE	3	
PHY 2049	GENERAL PHYSICS II	4	
PHY 2049L	GEN PHYSICS II LAB	1	
HUMANITIES	ANY GEN. ED. HUMANITIES	3	
SOCIAL SCIENCE*	ANY WRITING INTENS. SOCIAL SCIENCE	3	
Total Semester Credits:		14	
Semester 6			
Course		Credits	Notes
MAC 2313	CALCULUS W/ANALYTIC GEOMETRY III	4	SOME ENGINEERING MAJORS REQUIRE STA 2023 INSTEAD. TALK TO YOUR ADVISOR.
MAP 2302	DIFFERENTIAL EQUATIONS I	4	
Total Semester Credits:		8	
Total Academic Year Credits:		34	
Overall Credits:		69	

- Students must meet the Core, \*Writing Intensive, Civic Literacy, Foreign Language, and College requirements defined in the College Catalog.
- It is recommended for students to check with their transfer institution regarding the transferability of major-specific coursework.
- Classes not listed here may be used to satisfy AA degree requirements.
- To maintain timely graduation, it is highly recommended that you complete all common prerequisite course work prior to being admitted into a Bachelor's degree program. Some institutions may require that all prerequisites be completed before acceptance into the major.
- Your Student Success Advisor can help you make a personalized plan. [www.fsw.edu/advising](http://www.fsw.edu/advising)

Updated 3/25

# A.A. Degree Transfer Worksheet: Pre-Engineering

CATALOG YEAR 2025-2026



## SCIENCE, ENGINEERING & MATH PATHWAY



Use this worksheet to plan ahead and keep track of courses you have taken, as you progress through your A.A. degree and prepare to transition to a Bachelor's Degree. This checklist also includes example modifications for popular transfer schools. **\*\*NOTE: Prerequisites and transfer requirements can change without notice. Always confirm with your advisor and your intended school. Classes with the symbol help you explore this career pathway to see if it's right for you!**

Common Pre-Requisites & FSW Recommended Courses		Credits	Semester	Example Transfer Requirements**			
				Florida Gulf Coast University	University of Florida	University of South Florida	Other Transfer School:
<b>FSW Cornerstone Experience and Creative Capstone</b>							
SLS 1515	CORNERSTONE EXPERIENCE	3		X	X	X	X
IDS 2891	CREATIVE CAPSTONE	3		X	X	X	X
<b>Communication</b>							
ENC 1101*	COMPOSITION I	3		X	X	X	
ENC 1102*	COMPOSITION II	3		X	X	X	
<b>Humanities</b>							
HUMANITIES*	ANY WRITING INTENS. CORE HUMANITIES	3		X	X	X	
HUMANITIES	ANY GEN. ED. HUMANITIES	3		X	X	X	
<b>Social Science</b>							
CIVIC LIT.	CHOOSE AMH 2010, AMH 2020, OR POS 2041	3		X	X	X	
SOCIAL SCI*	ANY WRITING INTENS. SOCIAL SCIENCE	3		X	X	X	
<b>Mathematics</b>							
MAC 1106	COLLEGE ALGEBRA/PRECALCULUS	4		X	X	X	
MAC 1114	TRIGONOMETRY (MAY NEED MAC 1114 & MAC 1140)	4		X	X	X	
<b>Natural Science</b>							
CHM 2025	INTRO TO COLLEGE CHEMISTRY (SEE ADVISOR)	3		X	X	X	
CHM 2025L	INTRO TO COLLEGE CHEM. LAB (SEE ADVISOR)	1		X	X	X	
CHM 2045	GENERAL CHEMISTRY I	3		X	X	X	
CHM 2045L	GENERAL CHEMISTRY I LAB	1		X	X	X	
<b>Electives / Gen. Ed. Flex</b>							
EGS 1001	INTRODUCTION TO ENGINEERING	3		X	Alternate: Any AA Elective	Alternate: Any AA Elective	
MAC 2311	CALCULUS W/ANALYTIC GEOMETRY I	4		X	X	X	
MAC 2312	CALCULUS W/ANALYTIC GEOMETRY II	4		X	X	X	
MAC 2313	CALCULUS W/ANALYTIC GEOMETRY III	4		X†	X	X	
MAP 2302	DIFFERENTIAL EQUATIONS I	4		X	X	X	
PHY 2048	GENERAL PHYSICS I	4		X	X	X	
PHY 2048L	GENERAL PHYSICS I LAB	1		X	X	X	
PHY 2049	GENERAL PHYSICS II	4		X	X	X	
PHY 2049L	GENERAL PHYSICS II LAB	1		X	X	X	
<b>Foreign Language, Dual Enrollment, and Other Requirements (If Needed)</b>							
ENC 1130†	IMPROVING COL. WRITING (COUNTS AS ELECTIVE)	3		Notes:	Notes:	Notes:	Notes:
MAT 0057†	MATH FOR COL. SUCCESS (DEVELOPMENTAL: DOES NOT COUNT AS ELECTIVE OR MATH)	4		† Software Engineering or Biotechnology require STA 2023 instead of MAC 2313. Talk to your Advisor.		Must earn a B or better in at least one of these courses: - MAC 2311 - MAC 2312 - PHY 2048/L	
MAT 1033†	INTERMEDIATE ALGEBRA (MUST EARN A TO AVOID EXTRA PRE-REQS) (COUNTS AS ELECTIVE)	4					
MAC 1105†	COLLEGE ALGEBRA (IF LESS THAN A IN MAT 1033)	3					
MAC 1140†	PRE-CALC. ALGEBRA (IF MAC 1105 WAS NEEDED)	3					
<b>Florida Civic Literacy Exam Requirement (FCLE) - Check if Satisfied</b>				<p>MHF 2191 (Mathematical Foundations) is not required for admission, but will be required to complete FGCU's Engineering Bachelor's Degrees. FSW students may take MHF 2191 as a transient student before transferring to FGCU. Talk to</p>			
<p>- Students must meet the Core, *Writing Intensive, Civic Literacy, Foreign Language, and College requirements as outlined in the College Catalog.</p> <p>- It is recommended for students to check with their transfer institution regarding the transferability of major specific coursework.</p> <p>- Classes not listed here may be used to satisfy AA degree requirements.</p> <p>- To maintain timely graduation, it is highly recommended that you complete all common prerequisite course work prior to being admitted into a Bachelor's degree program. Some institutions may require that all prerequisites be completed before acceptance into the major.</p> <p>- Your Student Success Advisor can help you make a personalized plan. <a href="http://www.fsw.edu/advising">www.fsw.edu/advising</a></p> <p>†Only take this class if required by test scores or other college placement requirements. Total credits for degree may exceed the number indicated.</p>							
<p><b>Page 3 of 3</b></p>				<p><b>Note About All University Engineering Programs:</b> Engineering is a broad pathway, with many different sub-categories. Please refer to your future institution's program page or catalog to understand the pre-requisites of the specific type of engineering you intend to pursue.</p>			
<p><b>IMPORTANT:</b> This tool is designed to help you plan. Schools may have additional transfer requirements not listed here, and pre-requisite course requirements can change without notice. Always confirm transfer requirements directly with your destination schools and plan carefully and frequently with your Academic Advisor.</p>							