

Undergraduate Major Map

Catalog Year 2022
College / School Engineering
Major Electrical Engineering - BS
Track / Concentration
Career Path Four Year Freshman

Fall Term 2022 * TO DECLARE YOUR MAJOR IN ENGINEERING YOU MUST BE 'CALCULUS I READY'. * FOR DETAILED INFORMATION GO TO: https://cec.fiu.edu/advising/admission-policy/				Term GPA: 2.25 Term Hours: 15 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC First Year Experience	SLS 1501	First Year Exper	1	
UCC Communication	ENC 1101	Writing and Rhetoric I	3	
UCC Mathematics Group One	MAC 2281	Calc I for Engineering	4	(1) Satisfies UCC Mathematics Group 1 course requirement. Pre-requisite(s): MAC 1140 and MAC 1114 or MAC 1147
BSC2010 or CHM1045			3	Select CHM 1045 or BSC 2010 (3); UCC Natural Science Group 1. Co-requisite of CHM 1045: CHM 1045L; Co-requisite of BSC 2010: BSC 2010L. Pre-requisite ov CHM 1045: MAC 1105.
BSC2010L or CHM1045L			1	Select CHM 1045L or BSC 2010L (1) UCC Natural Science Group 1. Co-requisite of CHM 1045L: CHM 1045; Co-requisite of BSC 2010L: BSC 2010
UCC Humanities Group One			3	Recommended: HUM 1020 (1) See Endnotes

Spring Term 2023 PHY 2048L (Physics w/ Calculus I Laboratory) is not required for Electrical Engineering				Term GPA: 2.25 Term Hours: 16 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Communication	ENC 1102	Writing and Rhetoric II	3	Prerequisite: ENC 1101
UCC Mathematics Group Two	MAC 2282	Calc II for Engineering	4	(1) Satisfies UCC Mathematics Group 2 Course requirement. Prerequisite: MAC 2281 or 2311
UCC Natural Science Group One - PHY2048 or 2053, and PHY 2048L	PHY 2048	Physics W/Calculus I	4	Prerequisite for Engineering Majors: MAC 2281 or MAC 2311
Engineering Orientation	EGN 1002	Engineering Orient	2	
UCC Social Science Group Two	EGS 1041	Tech, Humans and Soc	3	Satisfies Social Science Group 2 and GL Foundations requirement

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Summer Term 2023				Term GPA: 2.25 Term Hours: 6 Cum GPA: 2
Use this semester to catch up on coursework and/or satisfy the 9 credit summer attendance requirement, move ahead in the curriculum to graduate and time. (3) See Endnotes				
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Arts	SPC 2608	Public Speaking	3	Satisfies UCC Arts requirement.
ECE Courses	EEL 2880	C Prog Emb Sys	3	

Fall Term 2023				Term GPA: 2.25 Term Hours: 15 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Mathematics and Sciences	MAC 2283	Calc III for Engineering	4	Prerequisite: MAC 2282 or MAC 2312
Mathematics and Sciences	PHY 2049	Physics W/Calc II	4	Prerequisite: PHY 2048 Corequisites: PHY 2049L & MAC 2282. (1) UCC Natural Science Group 2
Mathematics and Sciences	PHY 2049L	General Phys Lab II	1	Prerequisite: PHY 2048 Corequisites: PHY 2049 & MAC 2282. (1) UCC Natural Science Group 2
UCC Social Science Group One			3	Recommended: AMH2020 - Satisfies GRW, GLF and CIVICS Requirement. (1) See Endnotes
Additional Required Engineerin	ESI 3215	Eval Engr Data I	3	Prerequisite: MAC 2282 or MAC 2312

Spring Term 2024				Term GPA: 2.25 Term Hours: 14 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Mathematics and Sciences	MAP 2302	Differential Equat	3	Prerequisite: MAC 2312
ECE Courses	EEL 3110C	Circuit Analysis and Lab	3	Prerequisites: MAC 2312, PHY 2049, PHY 2049L, EGN 1002 Corequisites: EEL 2880, MAP 2302, EEL 3110L
ECE Courses	EEL 3110L	Circuits Lab	1	Prerequisites: MAC 2312, PHY 2049, PHY 2049L, EGN 1002 Corequisites: EEL 2880, MAP 2302, EEL 3110
ECE Courses	EEL 3120	Intro to Linear Systems	3	Prerequisites: MAC 2312, PHY 2049, PHY 2049L, EGN 1002
ECE Courses	EEL 3712	Logic Design I	3	Corequisites: EEL 3110, EEL 3110L, EEL 3712L
ECE Courses	EEL 3712L	Logic Design I Lab	1	Corequisites: EEL 3110, EEL 3110L, EEL 3712

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Summer Term 2024 Use this semester to catch up on coursework and/or satisfy the 9 credit summer attendance requirement, move ahead in the curriculum to graduate and time. (3) See Endnotes				Term GPA: 2.25 Term Hours: 3 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Humanities - Group Two			3	Recommended: WOH 2001 Satisfies GRW (1) See Endnotes

Fall Term 2024 (*) For list of approved electives see advisor or back of flowchart for your major.				Term GPA: 2.25 Term Hours: 16 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Additional Required Engineerin	EGN 3613	Engineering Economy	3	Prerequisites: EEL 3110 and EEL 3110L Corequisite: EEE 3303L
Concentration Elective Total Credits			3	(*)
Electrical Engineering (EE) Program Core	EEE 3303C	Electronics I & Lab	3	Prerequisites: EEL 3110 and EEL 3110L Corequisite: EEE 3303L
Electrical Engineering (EE) Program Core	EEE 3303L	Electronics I Lab	1	Prerequisites: EEL 3110 and EEL 3110L Corequisite: EEE 3303
ECE Courses	EEL 3135	Signals And Systems	3	Prerequisites: EEL 3120 and MAP 2302
Electrical Engineering (EE) Program Core	EEL 4410	Fields & Waves	3	Prerequisites: EEL 3110 and EEL 3110L Corequisite: EEE 3303

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Spring Term 2025 (*) For list of approved electives see advisor or back of flowchart for your major.					Term GPA: 2.25 Term Hours: 15 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	

Summer Term 2025 Use this semester to catch up on coursework and/or satisfy the 9 credit summer attendance requirement, move ahead in the curriculum to graduate and time. (3) See Endnotes	Term GPA: 2.25 Cum GPA: 2
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Fall Term 2025 (*) For list of approved electives see advisor or back of flowchart for your major.					Term GPA: 2.25 Term Hours: 14 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Senior Design	EEL 4920	Senior Design I	2	Prerequisite: 100 Electrical Engineering Major Credits (Including All EE Core Courses Must be Complete). See Advisor for Permission. Satisfies GL Discipline Specific Requirement.	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	
Concentration Elective Total Credits			3	(*)	

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Spring Term 2026 (*) For list of approved electives see advisor or back of flowchart for your major.				Term GPA: 2.25 Term Hours: 14 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Senior Design	EEL 4921C	Senior Design II	2	(*)
Concentration Elective Total Credits			3	(*)
Concentration Elective Total Credits			3	(*)
Concentration Elective Total Credits			3	(*)
Concentration Elective Total Credits			3	(*)

Summer Term 2026 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes	Term GPA: 2.25 Cum GPA: 2
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General Requirements

Critical Indicator is the minimum grade indicated in specific courses to demonstrate proficiency and progress in major. Earning less than the minimum grade is a trigger for a conversation with advisor

GENERAL UNIVERSITY REQUIREMENTS

See your Panther Degree Audit (PDA) for a real-time update on your academic career progress and additional information on University and major requirements at <http://my.fiu.edu>

(1) UCC: Students must meet the University Core Curriculum (UCC) requirements. For a full list of UCC courses, see <http://undergrad.fiu.edu/advising/university-core-curriculum.html> or speak with your advisor. Students requesting to be transient must receive permission from the Dean of Undergraduate Education.

(2) Global Learning: Freshmen entering FIU Summer B 2010 or later must take at least two Global Learning (GL) designated courses at FIU. See <http://goglobal.fiu.edu>. Courses must be:

- 1 GL foundation course, which must be taken from the University Core Curriculum (UCC).
- 1 GL discipline-specific course (3000/4000 level)

(3) Summer Hours Requirement: All students entering FIU or any university within the State University System (SUS) of Florida with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a university in the SUS.

(4) Gordon Rule: All Gordon Rule courses (i.e., UCC Communication, UCC Mathematics, and Gordon Rule with Writing (GRW) courses) must be completed with a minimum grade of 'C'. This requirement must be fulfilled within the first 60 credits. Students are required to complete at least two Gordon Rule with Writing (GRW) designated courses.

(5) Foreign Language Requirement for Graduation (FLENT/FLEX): A student who did not complete two years of the same foreign language in high school or at a post-secondary institution must successfully complete 8-10

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credit hours of instruction in one foreign language prior to graduation. Exceptions include appropriate CLEP, AP, IB, TOEFL, or transfer credit. Contact your advisor for more information.

(6) UCC Mathematics: Math courses are categorized into either Group One or Group Two. One math course from each group is required unless the first math taken is from Group Two and has an immediate prerequisite in Group One. In this case, students will take two Math courses from Group Two. However, one of the two Math courses must have a MAC, MGF, or MTG prefix.

Grades: Students must earn a minimum grade of C₊ in all math, physics, chemistry, biology.

For specific grade requirements, prerequisites, and course offerings please consult your academic advisor.

This document only lists SELECTED requirements. See your Panther Degree Audit for a full list of UCC and major requirements at <http://my.fiu.edu>