

Undergraduate Major Map

Catalog Year 2017
College / School Engineering
Major Electrical Engineering - BS
Track / Concentration
Career Path Four Year Freshman

Fall Term 2017

* TO DECLARE YOUR MAJOR IN ENGINEERING YOU MUST BE 'CALCULUS I READY'.

* FOR DETAILED INFORMATION GO TO:

<https://cec.fiu.edu/advising/admission-policy/>

* CHM 1045/L prerequisite: Second year high school algebra or college algebra.

Term GPA: 2.25

Term Hours: 15

Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	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 2311	Calculus I	4	C	(1) Satisfies UCC Mathematics Group 1 course requirement. Pre-requisite(s): MAC 1140 and MAC 1114 or MAC 1147
UCC Natural Science Group One - CHM1045, 1045L	CHM 1045	Gen Chemistry I	3	C+	(1) Natural Science Group 1. Pre-requisite: MAC 1105. Co-requisite: CHM 1045L
UCC Natural Science Group One - CHM1045, 1045L	CHM 1045L	Gen Chem Lab I	1	C+	(1) Natural Science Group 1. Pre-requisite: MAC 1105. Co-requisite: CHM 1045
UCC Social Science Group One			3		Recommended: HUM 1020 (1) See Endnotes

Spring Term 2018

PHY 2048L (Physics w/ Calculus I Laboratory) is not required for Computer Engineering

Term GPA: 2.25

Term Hours: 16

Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
UCC Communication	ENC 1102	Writing and Rhetoric II	3		Prerequisite: ENC 1101
UCC Mathematics Group Two	MAC 2312	Calculus II	4	C	(1) Satisfies UCC Mathematics Group 2 Course requirement. Prerequisite: MAC 2311
UCC Natural Science Group One - PHY2048 or 2053, and PHY 2048L	PHY 2048	Physics W/Calculus I	4	C+	Prerequisite for Engineering Majors: 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 2018

At least 9 credit hours must be taken in one or more summers.

Term GPA: 2.25

Term Hours: 6

Cum GPA: 2

*EGN 1110C is an Engineering deficiency course. Any student who took a computer aided technical drafting course in high school can submit a high school transcript and syllabus in order to have course reviewed for credit.

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
UCC Arts	SPC 2608	Public Speaking	3		Satisfies UCC Arts requirement.
CAD requirement			3		Recommended: EGN 1110C

Fall Term 2018

Term GPA: 2.25

Term Hours: 15

Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
ECE Courses	EEL 2880	Engr Software Tech	3	C+	
Mathematics and Sciences	MAC 2313	Multivariable Calc	4	C+	Prerequisite: MAC 2312
Mathematics and Sciences	PHY 2049	Physics W/Calc II	4	C+	(1) Natural Science Group 2. Pre-requisite: PHY 2048; Co-requisite(s): PHY 2049L and MAC 2312
Mathematics and Sciences	PHY 2049L	General Phys Lab II	1		(1) Natural Science Group 2. Pre-requisite: PHY 2048; Co-requisite(s): PHY 2049 and MAC 2312
UCC Humanities Group One			3		Recommended: AMH 2020 (1) See Endnotes

Spring Term 2019

Term GPA: 2.25

Term Hours: 14

Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
Mathematics and Sciences	MAP 2302	Differential Equat	3		Prerequisite: MAC 2312
ECE Courses	EEL 3110	Circuit Analysis	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 2019

At least 9 credit hours must be taken in one or more summers.

Term GPA: 2.25
Term Hours: 6
Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
Additional Required Engineerin	EIN 3235	Eval Engr Data I	3		Prerequisite: MAC 2312
UCC Humanities - Group Two			3		Recommended: WOH 2001 Satisfies GRW (1) See Endnotes

Fall Term 2019

*See advisor for approved concentration elective list

Term GPA: 2.25
Term Hours: 16
Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
Additional Required Engineerin	EGN 3613	Engineering Economy	3		
Electrical Engineering (EE) Program Core	EEL 4410	Fields & Waves	3		Prerequisites: EEL 3110, EEL 3110L, MAC 2313
Electrical Engineering (EE) Program Core	EEE 3303L	Electronics I Lab	1		Prerequisites: EEL 3110 and EEL 3110L Corequisite: EEE 3303
Advisor Approved Concentration			3		*
Electrical Engineering (EE) Program Core	EEE 3303	Electronics I	3		Prerequisites: EEL 3110 and EEL 3110L Corequisite: EEE 3303L
ECE Courses	EEL 3135	Signals And Systems	3	C+	Prerequisites: EEL 3120 and MAP 2302

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Spring Term 2020

*See advisor for approved concentration elective list

Term GPA: 2.25
Term Hours: 16
Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
Power / Energy	EEL 4213	Power Systems I	3		Prerequisite: EEL 4410 Corequisite: EEL 4213L
Power / Energy	EEL 4213L	Energy Convrg Lab	1		Prerequisite: EEL 4410 Corequisite: EEL 4213
Concentration Elective Total Credits			3		*
Concentration Elective Total Credits			3		*
Concentration Elective Total Credits			3		*
Concentration Elective Total Credits			3		*

Summer Term 2020

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

Fall Term 2020

*See advisor for approved concentration elective list

Term GPA: 2.25
Term Hours: 15
Cum GPA: 2

Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
Senior Design	EEL 4920	Senior Design I	2		Prerequisites: 100 Electrical Engineering Major Credits & Fully Completed All EE Core Courses. See your advisor for permission. (Satisfies GL Discipline Specific)
Concentration Elective Total Credits			4		*
Concentration Elective Total Credits			3		*
Concentration Elective Total Credits			3		*
Concentration Elective Total Credits			3		*

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Spring Term 2021 *See advisor for approved concentration elective list					
Course Group	Course Required	Course Description	Credit Hours	Critical Indicator	Course Notes
Senior Design	EEL 4921C	Senior Design II	2		Prerequisite: EEL 4920 (See Advisor for Permission) Satisfies GL Discipline Specific
Concentration Elective Total Credits			4		*
Concentration Elective Total Credits			3		*
Concentration Elective Total Credits			3		*

Term GPA: 2.25
Term Hours: 12
Cum GPA: 2

Summer Term 2021 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes					
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Term GPA: 2.25
Cum GPA: 2

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

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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 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, and chemistry. Students must earn a minimum of a "C" in all major courses and maintain a minimum of a 2.0 cumulative GPA. Note: EEL 4920 & EEL 4921C are taken during the student's last two semesters. EEL 4921C must be registered the semester right after taking EEL 4920.

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