

Undergraduate Major Map

Catalog Year 2023
College / School Engineering
Major Internet of Things - BS
Track / Concentration
Career Path Four Year Freshman

Fall Term 2023					Term GPA: 2.25 Term Hours: 13 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
UCC Communication	ENC 1101	Writing and Rhetoric I	3		
Math 1: College Algebra	MAC 1105	College Algebra	3	(1) UCC Mathematics Group 1 Course. Pre-requisite(s): MAC 1140 and MAC 1114 or MAC 1147	
UCC First Year Experience	SLS 1501	First Year Exper	1		
General Electives			3	Students are required to complete 19 credits of general electives (1000-4000 level).	
UCC Social Science Group One			3	Recommended: AMH2020 which satisfies GRW, GLF and Civics Requirements (1) See Endnotes	

Spring Term 2024					Term GPA: 2.25 Term Hours: 17 Cum GPA: 2
PHY2048L (Physics w/ Calculus I Laboratory) is not required for Computer Engineering					
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Introduction to IoT	TCN 2720	Intro to IoT	3		
UCC Communication	ENC 1102	Writing and Rhetoric II	3	Prerequisite: ENC 1101	
Math 2: Trigonometry	MAC 1114	Trigonometry	3	1.) Satisfies UCC Mathematics Group 2 Course requirement. Prerequisite: MAC 1105.	
Science 1: Physics without Cal	PHY 2053	Physics W/O Calc I	4	Co-requisite: MAC 1114	
Science 1: Physics without Cal	PHY 2048L	General Phys Lab I	1	Co-requisite: PHY 2053	
UCC Social Science Group Two			3	May use UCC Social Science Group 2 courses to satisfy the Global Learning requirement. (2) See Endnotes	

Summer Term 2024					Term GPA: 2.25 Cum GPA: 2
Use this semester to catch up on coursework from the past two semesters, to move ahead in the curriculum and/or satisfy the 9 credits summer requirement. (3) See Endnotes.					

Undergraduate Major Map

Fall Term 2024					Term GPA: 2.25
					Term Hours: 17
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Lower Division Core Courses	CTS 1120	Fund of Cybersec	3		
Science 2: Physics without Calculus II	PHY 2054	Physics W/O Calc II	4	Prerequisite: PHY 2054	
Science 1: Physics without Cal	PHY 2048L	General Phys Lab I	1	Co-requisite: PHY 2049L	
UCC Humanities Group One			3	Recommended: HUM 1020 (1) See Endnotes	
UCC Arts			3	Recommended: COM 3404 which satisfies GRW requirement, wth (See Endnotes).	
General Electives			3	Students are required to complete 19 credits of general electives (1000-4000 level).	

Spring Term 2025					Term GPA: 2.25
					Term Hours: 16
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Lower Division Core Courses	EGN 2271	Intro to Cir. & Elec. HW	3	Prerequisites: PHY 2053, PHY 2049L	
Lower Division Core Courses	CGS 2518	Computr Data Analys	3		
Programming in Java	COP 2250	Java Programming	3		
UCC Humanities - Group Two			3	Recommended: WOH 2000, satisfies GRW requirement (1) See Endnotes	
General Electives			4	Students are required to complete 19 credits of general electives (1000-4000 level).	

Summer Term 2025					Term GPA: 2.25
Use this semester to catch up on coursework from the past two semesters, to move ahead in the curriculum and/or satisfy the 9 credits summer requirement. (3) See Endnotes.					Term Hours: 6
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Additional Courses			3	EIN3235- Evaluation of Engineering Data I -Prerequisite: MAC 2312	
UCC Humanities - Group Two			3	Recommended: WOH 2001 (1) See Endnotes	

Undergraduate Major Map

Fall Term 2025				Term GPA: 2.25
				Term Hours: 15
				Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Lower Division Core Courses	EEL 2880	C Prog Emb Sys	3	
Upper Division Core Courses	CDA 3104	Intro. to Computer Design	3	Prerequisite: EGN 2271
Upper Division Core Courses	CNT 3142	Microcontrollers for IoT	3	Prerequisite: EGN 2271
Upper Division Core Courses	CGS 3767	Computer Os	3	Prerequisite: COP 2250
Upper Division Core Courses	CEN 3721	Intro Human-Comp Interaction	3	Prerequisite: COP 2250

Spring Term 2026				Term GPA: 2.25
				Term Hours: 15
				Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Upper Division Core Courses	EEL 4730	Programming Embedded Systems	3	Prerequisite: EEL 2880
Upper Division Core Courses	CNT 3122	Sensors for IoT	3	Prerequisite: EGN2271
General Electives			3	General Elective (Global Learning Foundations)- If not already satisfied, select a Global Learning Foundations Course to satisfy GLF requirement. Go to goglobal.fiu.edu for list of approved courses.
General Electives			3	General Elective (Global Learning Discipline Specific)- If not already satisfied, select a Global Learning Discipline Specific Course to satisfy GLD requirement. Go to goglobal.fiu.edu for list of approved courses.
General Electives			3	Students are required to complete 19 credits of general electives (1000-4000 level).

Summer Term 2026				Term GPA: 2.25
Use this semester to catch up on coursework from the past two semesters, to move ahead in the curriculum and/or satisfy the 9 credits summer requirement. (3) See Endnotes.				Cum GPA: 2

Undergraduate Major Map

Fall Term 2026 *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	Course Notes
Upper Division Core Courses	EEL 4734	Embedded Operating Systems	3	This is a Fall only course. Delaying this course will delay graduation.
Upper Division Core Courses	TCN 4211	Telecom Networks	3	
Upper Division Core Courses	CNT 3162	Wireless Comm. for IoT	3	
Upper Division Core Courses	EEE 4717	IoT-Sec-Intro	3	
Electives			3	Approved list is on program flowchart.

Spring Term 2027 *See advisor for approved concentration elective list				Term GPA: 2.25 Term Hours: 12 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Upper Division Core Courses	CNT 4165	Network Protocols for IoT	3	
Senior Project	TCN 4940	Senior Project	3	Capstone course for Internet of Things.
Electives			3	Approved list is on program flowchart.
Electives			3	Approved list is on program flowchart.

Summer Term 2027 Use this semester to catch up on coursework to graduate on time and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes				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).

Undergraduate Major Map

- 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 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.

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>