

## Undergraduate Major Map

Catalog Year 2023  
College / School Engineering  
Major Computer Science - BS  
Track / Concentration Software Dsgn and Devel  
Career Path Four Year Freshman

Fall Term 2023					Term Hours: 12
<p>* To declare the Computer Science major student must be MAC2311-Calculus 1 ready. For detailed information about this policy please visit: <a href="https://cec.fiu.edu/advising/admission-policy">https://cec.fiu.edu/advising/admission-policy</a></p> <p>* MAC2311 prerequisites: (MAC1140+MAC1114) or MAC1147</p> <p>UCC Social Science - Group 1 can be used to satisfy the Foundations Global Learning (GL) requirement.</p>					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
UCC Communication	ENC 1101	Writing and Rhetoric I	3		
Intro to Computing	CGS 1920	Intro. Field to Computing	1		
UCC First Year Experience	SLS 1501	First Year Exper	1		
UCC Mathematics Group One	MAC 2311	Calculus I	4		
UCC Social Science Group One			3	POS 2041 or AMH 2020 are recommended if Civic Literacy requirement is not met.	

Spring Term 2024					Term Hours: 14
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
UCC Communication	ENC 1102	Writing and Rhetoric II	3		
UCC Mathematics Group Two	MAC 2312	Calculus II	4	(1) See Endnotes	
Major Prerequisites	COP 2210	Programming I	4		
UCC Humanities Group One			3	(1) (2) (4) See Endnotes	

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<b>Summer Term 2024</b>				<b>Term Hours:</b> 6
Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes				<b>Cum GPA:</b> 2
UCC Arts or Humanities Group 1 can be used to satisfy the GL Foundations requirement (if requirement has not been satisfied).				
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Arts			3	Can be used to meet summer enrollment requirement.
UCC Social Science Group Two			3	Can be used to satisfy the Global Learning Foundations requirement. Can be used to meet summer enrollment requirement.

<b>Fall Term 2024</b>				<b>Term Hours:</b> 14
				<b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Core Courses	COP 3337	Programming II	3	
Discrete Mathematics	COT 3100	Discrete Structures	3	Can be substituted with MAD 2104.
Professional and Technical Writing	ENC 3249	Prof Tech Writing Comp	3	Can be substituted with ENC 3213. Both courses meet 1 Gordon Rule with Writing Requirement.
UCC Natural Science Group One	PHY 2048	Physics W/Calculus I	4	
UCC Natural Science Group One	PHY 2048L	General Phys Lab I	1	

<b>Spring Term 2025</b>				<b>Term Hours:</b> 14
UCC Humanities Group 2 satisfies one GRW. It can also be used to satisfy the GL Foundations requirement (if requirements have not been satisfied).				<b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Humanities - Group Two			3	Can be used to satisfy the Global Learning Foundations requirement and/or meet 1 Gordon Rule with Writing requirement.
Core Courses	CGS 3095	Technology in the Global Arena	3	Satisfies Global Learning Discipline-Specific requirement.
Core Courses	CDA 3102	Computer Architecture	3	
UCC Natural Science - Group Two	PHY 2049	Physics W/Calc II	4	
UCC Natural Science - Group Two	PHY 2049L	General Phys Lab II	1	

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<b>Summer Term 2025</b> Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes				<b>Term Hours:</b> 6 <b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Science Group 1			3	Can be used to also meet UCC Natural Science Group 1 and Group 2 requirements; BSC 1010, BSC 1011, CHM 1045, CHM 1046 or GLY 1010, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L.
Science Group 2			3	Can be used to also meet UCC Natural Science Group 1 and Group 2 requirements; BSC 1010, BSC 1011, CHM 1045, CHM 1046 or GLY 1010, PHY 2048, PHY 2048L, PHY 2049, PHY 2049L.

<b>Fall Term 2025</b> **Student is strongly encouraged to do an internship. Please contact STEM coordinator for more information.				<b>Term Hours:</b> 12 <b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Core Courses	COP 3530	Data Structures	3	
Introduction to Probability & Statistics	STA 3033	Prob & Stat For Cs	3	
Core Courses	CEN 4010	Software Eng I	3	
Core Courses	CNT 4713	Net-centric Computing	3	

<b>Spring Term 2026</b>				<b>Term Hours:</b> 12 <b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Core Courses	COP 4338	Systems Programming	3	
Core Courses	CEN 4021	Software Eng II	3	
Core Courses	COP 4555	Prin Of Prog Lang	3	
COMPUTER SCIENCE BS ELECTIVES			3	Students need to take 9 CS Electives - 1 CS Foundations Concentration, 1 CS Systems Concentration, 1 CS Applications Concentration, and 6 CS Additional Electives from any of the three concentrations.

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<b>Summer Term 2026</b>				<b>Term Hours:</b> 6
Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes				<b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
General Electives			3	Free choice elective to reach 120 credits for the degree. If FLENT/FLEX foreign lanaguage requirement is pending, then take level I of a language.
COMPUTER SCIENCE BS ELECTIVES			3	Students need to take 9 CS Electives - 1 CS Foundations Concentration, 1 CS Systems Concentration, 1 CS Applications Concentration, and 6 CS Additional Electives from any of the three concentrations.

<b>Fall Term 2026</b>				<b>Term Hours:</b> 13
				<b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Capstone I and II	CIS 3950	Capstone I	1	
Core Courses	COP 4610	Operating Syst Princ	3	
General Electives			3	Free choice elective to reach 120 credits for the degree. If FLENT/FLEX foreign lanaguage requirement is pending, then take level II of a language.
Core Courses	CEN 4072	Fund SW Testing	3	
COMPUTER SCIENCE BS ELECTIVES			3	Students need to take 9 CS Electives - 1 CS Foundations Concentration, 1 CS Systems Concentration, 1 CS Applications Concentration, and 6 CS Additional Electives from any of the three concentrations.

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Spring Term 2027				Term Hours: 11
				Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Capstone I and II	CIS 4951	Capstone II	2	
COMPUTER SCIENCE BS ELECTIVES			3	Students need to take 9 CS Electives - 1 CS Foundations Concentration, 1 CS Systems Concentration, 1 CS Applications Concentration, and 6 CS Additional Electives from any of the three concentrations.
COMPUTER SCIENCE BS ELECTIVES			3	Students need to take 9 CS Electives - 1 CS Foundations Concentration, 1 CS Systems Concentration, 1 CS Applications Concentration, and 6 CS Additional Electives from any of the three concentrations.
General Electives			3	Free choice elective to reach 120 credits for the degree.

### 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/pdfs/ucc-new.pdf> or speak with your advisor. UCC courses must be taken for a letter grade and may not be taken at other institutions without 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 Global Learning Foundations (University Core Curriculum) course, which must be taken within the first 60 credits.
- 1 Global Learning 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 Requirement: 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) courses. UCC Humanities-G2 will satisfy one GRW course and ENC3249 will satisfy the second GRW course.

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(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) Postsecondary Civic Literacy (CL): Students must demonstrate understanding of American Civics via completed course work or test credit. Consult with an advisor to determine the best option for satisfying this requirement.

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>.

### COLLEGE OF ENGINEERING AND COMPUTING: Selected Major Requirements

Grades: Students must earn a minimum grade of 'C' in all math, physics, and all core courses and maintain a minimum of a 2.0 cumulative GPA.

(A) Natural Science electives: students are required to take two additional one-semester courses in science for science majors with strong emphasis on quantitative methods.

- Acceptable lower division courses: BSC1010, BSC1011, CHM1045, CHM1046 and GLY1010
- Acceptable upper division courses: Upper division courses that have at least one of the acceptable lower division courses or PHY2048 or PHY2049 as a prerequisite. Please see Panther Degree Audit for a full list of options.

(B) CS SDD Elective: students must take one Computer Science elective course. Please see Panther Degree Audit for full list of options.

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