

## Undergraduate Major Map

**Catalog Year** 2023  
**College / School** Engineering  
**Major** Biomedical Engineering - BS  
**Track / Concentration**  
**Career Path** Four Year Freshman

<b>Fall Term 2023</b> Math placement is based on your Math Placement Score and classes are to be selected in consultation with an advisor. The College of Engineering and Computing requires placement into MAC 2311 to be accepted into the Civil Engineering program. If you do not place into MAC2311, see your advisor to discuss appropriate courses and major requirements.					<b>Term GPA:</b> 2.5 <b>Term Hours:</b> 15 <b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Major Required Lower Level	BME 1054L	Intro to BME Computing	1		
Major Required Lower Level	BME 1008C	Intro to Biomed Eng	2		
UCC Communication	ENC 1101	Writing and Rhetoric I	3		
UCC Mathematics Group One	MAC 2281	Calc I for Engineering	4		
UCC Natural Science Group One - CHM1045, 1045L	CHM 1045	Gen Chemistry I	3		
UCC Natural Science Group One - CHM1045, 1045L	CHM 1045L	Gen Chem Lab I	1		
UCC First Year Experience	SLS 1501	First Year Exper	1		

<b>Spring Term 2024</b>					<b>Term GPA:</b> 2.5 <b>Term Hours:</b> 16 <b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Major Required Science	PHY 2048	Physics W/Calculus I	4	Also satisfies UCC Natural Science Group One Lecture. (1) See Endnotes	
Major Required Science	PHY 2048L	General Phys Lab I	1	Also satisfies UCC Natural Science Group One Lab. (1) See Endnotes	
UCC Communication	ENC 1102	Writing and Rhetoric II	3		
UCC Mathematics Group Two	MAC 2312	Calculus II	4		
Major Required Science	CHM 1046L	Gen Chem Lab II	1		
Major Required Science	CHM 1046	Gen Chemistry II	3		

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<b>Summer Term 2024</b>				Term GPA: 2.5
Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes				Term Hours: 7
				Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Social Science Group One			3	AMH 2020 is recommended
Major Required Science	BSC 2010	General Biology I	3	Also satisfies UCC Natural Science Group 1 Lecture
Major Required Science	BSC 2010L	Gen Biology Lab I	1	Also satisfies UCC Natural Science Group 1 Lab

<b>Fall Term 2024</b>				Term GPA: 2.5
				Term Hours: 14
				Cum GPA: 2.5
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Mathematics Group Two	MAC 2283	Calc III for Engineering	4	
UCC Natural Science Group Two - PHY 2049 or 2054, and 2049L	PHY 2049L	General Phys Lab II	1	
UCC Natural Science Group Two - PHY 2049 or 2054, and 2049L	PHY 2049	Physics W/Calc II	4	
Major Required Science	CHM 2210L	Org Chem Lab I	1	
Major Required Science	CHM 2210	Organic Chem I	4	Required for Pre-Med: Minimum grade of B

<b>Spring Term 2025</b>				Term GPA: 2.5
				Term Hours: 12
				Cum GPA: 3
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Engineering Math	ESI 3215	Eval Engr Data I	3	Student may enroll in STA 3033 in order to fulfill this requirement
UCC Humanities Group One			3	
Major Required Mathematics	MAP 2302	Differential Equat	3	
Major Required Lower Level	BME 2740	BME Simulation	3	

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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  EGS 1041 may be used to satisfy the Global Learning and UCC Social Science - Group Two requirement. (2) See Endnotes					<b>Term GPA:</b> 2.5 <b>Term Hours:</b> 6 <b>Cum GPA:</b> 3
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
UCC Social Science Group Two			3		
UCC Humanities - Group Two			3	May select course that meets the GRW requirement. (1) (4) See Endnotes	

<b>Fall Term 2025</b>					<b>Term GPA:</b> 2.5 <b>Term Hours:</b> 14 <b>Cum GPA:</b> 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Biomedical Engineering 3000 Level	BME 3403	Eng An Bio Sys I	3		
Biomedical Engineering 3000 Level	BME 3721	BME Data Eval Prin	3		
Engineering Required	EEL 3110C	Circuit Analysis and Lab	3		
Engineering Required	EEL 3110L	Circuits Lab	1		
Engineering Required	EGM 3503	Applied Mechanics	4	Student may enroll in EGN 3311 and EGN 3321 in order to fulfill this requirement.	

## Undergraduate Major Map

Spring Term 2026					Term GPA: 2.5
					Term Hours: 14
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Biomedical Engineering 3000 Level	BME 3404	Eng An Bio Sys II	3		
Biomedical Engineering 4000 Level	BME 4011	Clinical Rotations	1		
Engineering Required	BME 4503C	Medical Inst Design	4		
BME Electives			3	Required for Pre-Med: CHM 2211 & CHM 2211L (Minimum grade of B)	
Biomedical Engineering 3000 Level	BME 3632	BME Transport	3		

Summer Term 2026					Term GPA: 2.5
Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes					Term Hours: 3
SPC2608 may be used to satisfy UCC Arts requirement. (1) See endnotes					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
UCC Arts			3		

Fall Term 2026					Term GPA: 2.5
					Term Hours: 14
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Biomedical Engineering 4000 Level	BME 4050L	BME Lab I	1		
Biomedical Engineering 4000 Level	BME 4100	Biomaterials	3		
Biomedical Engineering 4000 Level	BME 4800C	Des Biomed Devices	4		
Science Electives			3	Required for Pre-Med: BCH 3033 or CHM 4304 (Minimum grade of B)	
BME Electives			3		

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Spring Term 2027					Term GPA: 2.5
					Term Hours: 13
					Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
Biomedical Engineering 4000 Level	BME 4051L	BME Lab II	1		
Senior Design Project	BME 4908	Senior Design Proj	3		
Biomedical Engineering 4000 Level	BME 4930	Undergrad Seminar	0		
REQUIRED ELECTIVES			3		
REQUIRED ELECTIVES			3		
REQUIRED ELECTIVES			3		

Summer Term 2027		Term GPA: 2.5
Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes		Cum GPA: 2.25

### 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 please speak with your advisor or visit the below website for more information:

<http://undergrad.fiu.edu/advising/university-core-curriculum.html>

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.

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(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.

(7) College of Engineering/BME Department: Selected Requirements

Grades: Students must earn a minimum grade of "C" in all math, biology, physics, and chemistry courses. Students must earn a minimum of a "D-" in all major courses and maintain a minimum of a 2.0 cumulative GPA. Note: BME students must maintain a minimum Common Prerequisite GPA of 2.5 in all of the MAC, BSC, PHY, and CHM courses listed.

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