

Undergraduate Major Map

Catalog Year 2020
College / School Engineering
Major Computer Science - BS
Track / Concentration Software Dsgn and Devel
Career Path Four Year Freshman

Fall Term 2020

Term Hours: 12
Cum GPA: 2

* To declare the Computer Science major student must be MAC2311-Calculus 1 ready. For detailed information about this policy please visit: <https://cec.fiu.edu/advising/admission-policy>

* MAC2311 prerequisites: (MAC1140+MAC1114) or MAC1147

UCC Social Science - Group 1 can be used to satisfy the Foundations Global Learning (GL) requirement.

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|---------------------------|-----------------|------------------------|--------------|--------------------|------------------|
| UCC Communication | ENC 1101 | Writing and Rhetoric I | 3 | | |
| Core Courses | CGS 1920 | Intro to Computing | 1 | | |
| UCC First Year Experience | SLS 1501 | First Year Exper | 1 | | |
| UCC Mathematics Group One | MAC 2311 | Calculus I | 4 | C | (1) See Endnotes |
| General Electives | | | 3 | | |

Spring Term 2021

Term Hours: 14
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|----------------------------|-----------------|-------------------------|--------------|--------------------|--|
| UCC Communication | ENC 1102 | Writing and Rhetoric II | 3 | | |
| UCC Mathematics Group Two | MAC 2312 | Calculus II | 4 | C | (1) See Endnotes |
| Major Prerequisites | COP 2210 | Programming I | 4 | | Natural Science Elective. May need to take the lab. (A) See Endnotes |
| UCC Humanities - Group One | | | 3 | | Strongly Recommended: COP 1000 |

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Summer Term 2021

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

UCC Arts or Humanities Group 1 can be used to satisfy the GL Foundations requirement (if requirement has not been satisfied).

Term Hours: 9
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|------------------------------|-----------------|--------------------|--------------|--------------------|---|
| UCC Humanities Group One | | | 3 | | (1) (2) (4) See Endnotes |
| UCC Arts | | | 3 | | (1) (2) (4) See Endnotes |
| UCC Social Science Group One | | | 3 | | POS 2041 (recommended) if the Civic Literacy requirement is not met. (1) (2) (6) See Endnotes |

Fall Term 2021

UCC Social Science Group 2 can be used to satisfy the GL Foundations requirement (if requirement has not been satisfied).

Term Hours: 14
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|------------------------------|-----------------|----------------------|--------------|--------------------|----------------------------|
| Discrete Mathematics | COT 3100 | Discrete Structures | 3 | | or MAD2104 - Discrete Math |
| UCC Social Science Group Two | | | 3 | | (1) (2) See Endnotes |
| Core Courses | COP 3337 | Programming II | 3 | | |
| Major Prerequisites | PHY 2048 | Physics W/Calculus I | 4 | | (1) See Endnotes |
| Major Prerequisites | PHY 2048L | General Phys Lab I | 1 | | (1) See Endnotes |

Spring Term 2022

UCC Humanities Group 2 satisfies one GRW. It can also be used to satisfy the GL Foundations requirement (if requirements have not been satisfied).

Term Hours: 14
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|---------------------|-----------------|------------------------|--------------|--------------------|----------------------------------|
| Major Prerequisites | PHY 2049 | Physics W/Calc II | 4 | | (1) See Endnotes |
| Major Prerequisites | PHY 2049L | General Phys Lab II | 1 | | (1) See Endnotes |
| Core Courses | CDA 3102 | Computer Architecture | 3 | | |
| Core Courses | COP 3530 | Data Structures | 3 | | See advisor for list of courses. |
| Core Courses | ENC 3249 | Prof Tech Writing Comp | 3 | | |

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Summer Term 2022

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

Term Hours: 6
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|--------------------------|-----------------|--------------------------------|--------------|--------------------|--|
| Core Courses | CGS 3095 | Technology in the Global Arena | 3 | | or ENC3213-Professional & Technical Writing. Satisfies 1 GRW. (4) See Endnotes |
| Software Track Electives | | | 3 | | Natural Science Elective. May need to take lab. (A) See Endnotes |

Fall Term 2022

**Student is strongly encouraged to do an internship. Please contact STEM coordinator for more information.

Term Hours: 12
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|--|-----------------|---------------------|--------------|--------------------|--|
| Core Courses | CEN 4010 | Software Eng I | 3 | | Satisfies GL Discipline Specific. (2) See Endnotes |
| General Electives | | | 3 | | |
| Core Courses | COP 4338 | Systems Programming | 3 | | |
| Introduction to Probability & Statistics | STA 3033 | Prob & Stat For Cs | 3 | | |

Spring Term 2023

**Student is strongly encouraged to do an internship. Please contact STEM coordinator for more information if you have not done it yet.

Term Hours: 12
Cum GPA: 2

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|-------------------|-----------------|----------------------|--------------|--------------------|--------------|
| Core Courses | COP 4610 | Operating Syst Princ | 3 | | |
| Core Courses | CEN 4072 | Fund SW Testing | 3 | | |
| General Electives | | | 3 | | |
| General Electives | | | 3 | | |

Summer Term 2023

**Student should be doing an Internship this summer term. Please contact STEM coordinator for help.

Term Hours: 3
Cum GPA: 2

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

| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
|-------------------|-----------------|--------------------|--------------|--------------------|--|
| General Electives | | | 3 | | Could register COP 3949 Internship course for up to 3 Credits. |

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| Fall Term 2023 | | | | | Term Hours: 13 |
|-------------------|-----------------|--------------------|--------------|--------------------|---------------------|
| | | | | | Cum GPA: 2 |
| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
| Core Courses | CEN 4021 | Software Eng II | 3 | | |
| General Electives | | | 3 | | |
| General Electives | | | 3 | | |
| General Electives | | | 3 | | |
| General Electives | | | 1 | | CIS3950: Capstone 1 |

| Spring Term 2024 | | | | | Term Hours: 11 |
|---|-----------------|--------------------|--------------|--------------------|--|
| CIS 4911 Senior Project is recommended to be taken by itself. | | | | | Cum GPA: 2 |
| Course Group | Course Required | Course Description | Credit Hours | Critical Indicator | Course Notes |
| Core Courses | CIS 4911 | Senior Project | 2 | | or VIP Course. See advisor for enrollment details. |
| Software Track Electives | | | 3 | | Computer Science Elective. See PDA for list of options. (B) See Endnotes |
| Software Track Electives | | | 3 | | |
| Software Track Electives | | | 3 | | |

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)

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(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.

(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>