

COMPUTER SCIENCE (M.S.)

The Masters of Science (M.S.) in Computer Science program will provide students with deep knowledge and understanding of the theories and methodologies associated with computing. It will prepare students to push the boundaries of scientific advancements in the field of computing and conduct in-depth analysis of intricate computing challenges as well as formulate solutions through the application of computer science theory. Furthermore, the program is tailored to prepare students for advanced career opportunities in computing, encompassing roles in research and development, education, as well as project management. Additionally, it serves as a strong foundation for those aspiring to pursue doctoral studies in a computing-related discipline.

The program consists of a total of 30 credits of graduate level courses. The program has three required courses related to computer architecture, operating systems and the design and analysis of algorithms. Students may select to have a thesis option, which require 9 credits of thesis, or a nonthesis option which require a 3-credit project and 6 additional credits of restrictive electives. Students may also select an optional concentration in either Data Science or Cybersecurity, each consisting of 9 credits. Every student will have a minimum of 3 credits of restrictive electives and up to 15 additional credits of restrictive electives depending on the thesis and concentration options they choose.

Concentrations

- Cybersecurity Concentration
- Data Science Concentration

Program Admission Requirements

Admissions to the Master of Science in Computer Science program is competitive and selective. Applicants who meet the minimum requirements for consideration may not necessarily be admitted into the program.

- Submit an FGCU Graduate Admissions Application and satisfy all applicable university admissions requirements.
- Earned baccalaureate degree in a closely related discipline from an institution that maintains accreditation by a U.S. Department of Education sanctioned accrediting body (<https://www.ed.gov/laws-and-policy/higher-education-laws-and-policy/college-accreditation> (<https://www.ed.gov/laws-and-policy/higher-education-laws-and-policy/college-accreditation/>)).
- Official copy of undergraduate transcripts with a minimum Grade Point Average (GPA) of 3.0 (4.0 scale) for the last 60 credits of upper division undergraduate coursework.
- Complete the following prerequisite courses, or equivalent, with a grade of C (2.0) or better prior to matriculation ("C-" grades are not acceptable).
 - Computer Architecture
 - Programming including Data Structures and Algorithms
 - Operating Systems
 - Calculus II and Basic Statistics
- Applicants who wish to pursue the Cybersecurity Concentration are expected to have basic knowledge in cybersecurity or computer security. For example, CEN 3078 Computer Security.
- Applicants who wish to pursue the Data Science Concentration are expected to have basic knowledge in data science. For example, IDC 3140 Intro to Data Science.

- Provide a resume, two (2) recommendation letters (at least one from an academic reference) and a statement of objectives clearly stating intended concentration.
- Provide official copies of GRE test scores. The exam must have been taken within the last five (5) years. Exceptions to the GRE test scores requirement may be considered on a case-by-case basis:
 - o FE/PE can be used in lieu of the GRE. You must obtain a verification link from NCEES and forward it to the department for processing.
 - GRE requirement may be waived for applicants with minimum 3.0 GPA in upper-division coursework (last 60 credits) within the last seven (7) years from an ABET accredited undergraduate degree program.
 - GRE requirement may be waived for applicants with a relevant graduate degree from a regionally accredited institution of higher learning.
 - GRE test scores that have expired (older than five years) may be considered on a case-by-case basis with the submission of documented relevant work experience.
- International students must demonstrate English language proficiency in accordance with University regulation.
- Applicants that do not meet all of the above requirements may be considered on a case-by-case basis.

Program Progression and Additional Graduation Requirements

- Complete a minimum of 30 credits.
- Submit an approved Plan of Study no later than the end of the student's first semester in the program.
- Earn a cumulative GPA of 3.0 or higher for all courses in the program.
- Maintain minimum 3.0 cumulative GPA on a 4.0 scale throughout the program (see the Probation/Dismissal section of the Graduate Student Guidebook).
- Earn a grade of B minus (B-) or better in each course. A grade of B is considered better than B-.
- Satisfy all degree requirements within seven years from the time of admission to the program.
- Comply with University graduate policies and regulations.
- Satisfy the University's graduate degree requirements.
- Each student completing a thesis must have a graduate committee composed of a minimum of three individuals with at least two from approved engineering faculty.
- Earn more than 50% of the credits toward the degree through FGCU.
- Students must register for a minimum of one credit during the semester in which they apply for graduation.
- Submit an application for graduation by the semester deadline listed in the FGCU Academic Calendar.
- If pursuing the thesis option, submit one electronic copy of the completed thesis to ProQuest. Refer to the Graduate Studies website for guidelines.

Program Requirements

Code	Title	Credits
Required Courses in the Major		(9 credits)
Minimum grade of B- in each course		
COP 5611	Advanced Operating Systems	3
COT 5405	Design and Analysis of Algo.	3
EEL 5769	Computer Architecture	3

Thesis or Non-Thesis	(12 credits)
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Minimum grade of B- in each course

All courses must be selected in consultation with the program advisor

Complete one of the following options:

Thesis Option

CIS 6970	Thesis (total of 9 credits)	3
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Complete 3 credits from the Restricted Electives in the Major ¹

Non-Thesis Option

CIS 6910	Project	3
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Complete 9 credits from the Restricted Electives in the Major ¹

Restricted Electives in the Major/Concentration	(9 credits)
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Select one of the following options in consultation with the program advisor

Minimum grade of B- in each course

Cybersecurity Concentration

CAP 5151	Secure Internet of Things	3
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CEN 5079	Secure Software Development	3
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CIS 5377	Info. Security and Compliance	3
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Data Science Concentration

CAI 6107	Advanced Machine Learning	3
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CAI 6930	Special Topics	3
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CAP 5415	Computer Vision	3
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No Concentration noted on transcript

Complete 9 credits from the following:

EEE 6751	Adv Image & Video Forensics	3
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EGN 6457	Research Methods	3
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Any graduate course (5000-6999 level) with prefix CAI, CAP, CIS, or COP.

¹ Courses used to fulfill the Thesis or Non-Thesis requirements cannot also be used to fulfill requirements in the Restricted Electives in the Major option.

Total Credits Required: 30