

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Electrical Engineering and Computer Science College Engineering and Computer Science		
Program Name M.S. in Computer Science		<input type="checkbox"/> New Program <input checked="" type="checkbox"/> Change Program	Effective Date (TERM & YEAR) Summer 2025
Please explain the requested change(s) and offer rationale below or on an attachment We would like to modify the core curriculum so that it aligns with those at other major institutions and better prepares students for careers in computer science. Currently, the curriculum is so flexible that students are not taking appropriate courses that prepare them for careers in computer science. Specifically, we would like to modify the core curriculum in the following way: 1) Remove the options for students to take one course in theory in algorithms (COT prefix), one course in software and programming (COP or CEN prefix), and one course in systems and applications (CAP, CIS, CNT, or CDA prefix). These options provide too much flexibility and confusion, resulting in our students are not choosing appropriate courses. 2) Add two required courses to establish foundational knowledge in computer science: CEN 5035 Software Engineering and COT 6405 Analysis of Algorithms.			
Faculty Contact/Email/Phone Dr. Masoud Jahandar Lashaki, Graduate Program Dire		Consult and list departments that may be affected by the change(s) and attach documentation n/a	
Approved by Department Chair <u>Hani Kdva</u> College Curriculum Chair <u>Francisco Presuel-Moreno</u> College Dean <u>Raquel Assis</u> UGPC Chair <u>Ahmed Sementelli (Feb 19, 2025 15:56 EST)</u> UGC Chair <u>Ahmed Sementelli (Feb 19, 2025 15:56 EST)</u> Graduate College Dean <u>Robert W. Johnson</u> UFS President _____ Provost _____			Date <u>1/15/2025</u> <u>1/15/2025</u> <u>1/21/2025</u> <u>02/19/2025</u> <u>02/19/2025</u> <u>02/19/2025</u> _____ _____

Email this form and attachments to UGPC@fau.edu one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

COMPUTER SCIENCE MASTER OF SCIENCE (M.S.)

The non-thesis option for this degree requires a minimum of 30 credits. The thesis option requires a minimum of 30 credits, including 6 credits of thesis.

Admission Requirements

Applicants for admission to the master's program are approved by the University upon the recommendation of the department. All applicants must submit with their applications the official transcripts from previous institutions attended. Applications for admission are evaluated on an individual basis. As a minimum, applicants are expected to meet the following requirements. Students with non-engineering bachelor's degrees, click [here](#) for additional requirements.

1. Students are expected to have a bachelor's degree in computer science or a related field. Applicants with different backgrounds are encouraged to apply. Students are expected to have taken Calculus 2 and a statistics course, to be proficient in programming, and to be knowledgeable in the topics of data structures and algorithm design and analysis, operating systems and computer architecture. The admission committee will evaluate the application holistically to determine the applicant's suitability using several factors, such as academic performance, GPA, background and experience. The admission committee may assign remedial courses on a case-by-case basis. In some cases, prerequisite courses may be taken after admission to the graduate program;
2. At least a 3.0 (of a 4.0 minimum) GPA in the last 60 credits attempted prior to graduation; and
3. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

Submission of Plan of Study

Students are required to submit a Plan of Study when they have completed between 9 and 15 credits of coursework with a minimum cumulative GPA of 3.0. All courses must be approved by the student's advisor. A student may not register for thesis credits prior to submitting a Plan of Study.

Degree Requirements

Students must satisfy all of the University graduate requirements. In addition, the following specific degree requirements apply, depending on the choice of degree programs.

Core Courses (6 credits)

Students in both thesis and non-thesis options complete two core courses.

Software Engineering

CEN 5035

3

Thesis Option (30 credits)

1. Requires 6 credits of orally defended written thesis. The M.S. committee is chaired by the student's thesis advisor. The chair of the committee must be a graduate faculty member from the Department of Electrical Engineering and Computer Science.
2. Requires 24 credits of approved coursework with the following constraints:
 - a. ~~Two core courses (6 credits) A minimum of 3 credits from theory and algorithm (graduate course prefix COT), a minimum of 3 credits from software and programming (graduate course prefix COP or CEN) and a minimum of 3 credits from systems and applications (graduate course prefix CAP, CIS, CNT or CDA). Special Topics courses (COT 5930, COT 6930, CEN 5931, CEN 6930) and directed independent study courses (COT 6900, COT 6905) may be counted only with prior approval of the advisor.~~
 - b. A minimum of 21 credits in Computer Science and Engineering courses.
 - c. No more than 3 credits of directed independent study may be taken.
 - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
 - e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
3. At least one-half of the credits must be at the 6000 level or above.
4. Must have a GPA of 3.0 (out of 4.0) or better.
5. All courses in the degree program must be completed with a grade of "C" or better.
6. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

Non-Thesis Option (30 credits)

1. Requires 30 credits of approved coursework with the following constraints:
 - a. ~~Two core courses (6 credits) A minimum of 3 credits from theory and algorithm (graduate course prefix COT), a minimum of 3 credits from software and programming (graduate course prefix COP or CEN) and a minimum of 3 credits from systems and applications (graduate course prefix CAP, CIS, CNT or CDA). Special Topics courses (COT 5930, COT 6930, CEN 5931, CEN 6930) and directed independent study courses (COT 6900, COT 6905) may be counted only with prior approval of the advisor.~~
 - b. -A minimum of 27 credits in Computer Science and Engineering courses.
 - c. No more than 3 credits of directed independent study may be taken.
 - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
 - e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
2. At least one-half of the credits must be at the 6000 level or above.

3. Must have a GPA of 3.0 (out of 4.0) or better.
4. All courses in the degree program must be completed with a grade of "C" or better.
5. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

Transfer Credits

Any transfer credits toward the requirements for a master's degree in Computer Science must be approved by the department, the College and the University. The transfer credits must correspond to equivalent requirements and performance levels expected for the degree. Normally no more than 6 credits of coursework (that have not been applied to a degree) can be transferred from another institution.