

Computer Science

MASTER OF SCIENCE

Program Features

- 12 courses | 36 credit hours
- Concentrations include software engineering, data science, computer systems, information assurance and cybersecurity, and real-world computing.
- The security concentration is recognized by the U.S. National Security Agency and the Department of Homeland Security.
- Students receive quality instruction from CEC faculty members—all of whom hold Ph.D. degrees and are experts in their respective fields of research/application.

Program Formats

- Fort Lauderdale/Davie Campus
- Online

Program Highlights

- Full-time students can earn the degree in 12 months.
- Working professionals can earn the degree in 16–24 months.
- Fall and winter terms are 16 weeks.
- The summer term is 14 weeks.

Career Opportunities

- artificial intelligence engineer
- data scientist
- software engineer
- systems software developer
- user interface designer/developer

Learn More
cec.nova.edu

M.S. in Computer Science

The Computer Science (CISC) program at the College of Engineering and Computing (CEC) is designed to give students a thorough knowledge of the field and to provide an enduring foundation for future professional growth. The program blends theory and practice into a learning experience that develops skills applicable to complex real-world problems.

Students take five core courses covering the theory of programming languages, the design and analysis of algorithms, operating systems, database management systems, and software engineering. Three or more courses are then taken in one of the following concentrations of the student's choosing: software engineering, computer systems, data science, information assurance and cybersecurity, and real-world computing. Students taking the no concentration option will need to take seven elective courses. For students taking a concentration option, remaining courses are electives drawn from computer science course offerings.

Admissions Requirements

- ✓ completed online application for admission (apply.nova.edu)
- ✓ nonrefundable, \$50 application fee
- ✓ conferred bachelor's degree with an appropriate major from a regionally accredited institution
- ✓ sealed official transcripts from all prior institutions
- ✓ overall undergraduate GPA of 2.5 or greater on a 4.0 scale (Applicant must have earned a GPA of at least 3.0 in his or her major.)
- ✓ résumé providing a short account of the applicant's academic background and professional experience

The college may require additional documentation to support the application. An applicant may submit standardized test scores or any additional documentation to strengthen his or her application.



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Curriculum | Total Credits: 36

PREREQUISITE COURSES

Applicants who do not have adequate academic backgrounds may be required to take one or more of the following 500-level graduate courses during the first two terms of the program. (Courses are 3 credits each.)

MSIT	500	Foundations of Systems
CISC	500	Java Programming Language
CISC	501	Assembly Language and Architecture
CISC	502	Mathematics in Computing
CISC	503	Data Structures and Algorithms

The Master of Science in Computer Science (CISC) has six concentration options as described following. Students who opt to do a thesis will replace two of the five elective courses with these credits. Plans for the thesis option must be made in conjunction with, and be approved by, the program office.

DEGREE PROGRAM COURSES

Core Courses (four courses; 3 credits each)

CISC	610	Programming Languages
CISC	615	Design and Analysis of Algorithms
CISC	640	Operating Systems
CISC	660	Database Management Systems
CISC	680	Software Engineering

Software Engineering Concentration (three courses; 3 credits each)

CISC	682	Software Requirements Engineering
CISC	684	Software Testing and Verification
CISC	683	Object-Oriented Design

OR

CISC	685	Interaction Design
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Computer Systems Concentration (three courses; 3 credits each)

CISC	647	Computer Architecture
CISC	650	Computer Networks

CISC	665	Distributed Systems
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Data Science Concentration (four courses; 3 credits each)

CISC	662	Data Mining and Knowledge Discovery in Databases
MMIS	671	Fundamentals of Analytics and Business Intelligence
CISC	664	Information Retrieval and Web Search Engine Technology
CISC	672	Data Visualization

Information Assurance and Cybersecurity Concentration (three courses; 3 credits each)

Students select three of the five listed courses.

ISEC	600	Secure Computer Systems
ISEC	620	Applied Cryptography
ISEC	640	Database Security
ISEC	650	Computer and Network Forensics
ISEC	660	Advanced Network Security

Real-World Computing Concentration (three courses; 3 credits each)

CISC	665	Distributed Systems
CISC	670	Artificial Intelligence
CISC	681	Computer Graphics

Electives (five courses; 3 credits each)

Any course in the concentrations aforementioned is also an elective course in the program. Additionally, any offerings of CISC 631—Theory of Computation or CISC 690—Special Topics in Computer Science, will count as electives.

This publication should not be viewed as a substitution for official program requirements and outcomes. A student is responsible for meeting the curriculum and program requirements in the *Graduate Student Catalog* that are in effect when the student enters the program.

Nova Southeastern University admits students of any race, color, sexual orientation, and national or ethnic origin. ■ Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate's, baccalaureate, master's, educational specialist, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Nova Southeastern University.

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Admissions

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