Master of Science in Allied Computer Science (MSACS) Completion Requirements

- The MSACS program requires successful completion of at least 30 credits (10 graduate courses), excluding any prerequisites that may be needed.
- Students are expected to complete the degree program within a two-year period.
- Students must earn a CGPA of at least 2.75 in order to graduate from the program.

A maximum of nine credits may be transferred from courses completed within the last five years at other accredited institutions and with a grade of B or better in accordance with the curricular requirements of the program and FDU policies.

Career Perspectives

This program is designed to prepare students for entrance into and advancement in the profession of Computer Science, to meet the current needs of professionals and industry in the ever-changing field of computing, and for advanced graduate programs, including doctoral studies.

The program educates students and professionals to become leaders in various areas of Computer Science, including software engineering, database administration, and design, systems analysis and design, and advanced programming.

Graduates from this program can pursue careers as programmers, applications engineers and developers, data scientists, systems analysts, software engineers and developers, project managers, educators, researchers, consultants, and database, systems, network, and cybersecurity administrators.

Curriculum

Graduates from an accredited institution with an undergraduate degree in computer science typically meet these prerequisite requirements.

Research Foundation

All MSACS students are required to take a non-academic research course in their first semester.

- EPS 5299 – Academic Research Foundations

Prerequisite Courses

Students without prior education equivalent to the following courses must complete these prerequisites:

- CSCI 5505 – Introduction to Computer Programming
- CSCI 5525 – Introduction to Computer Science
- CSCI 5557 – Data Structures and Algorithms
- CSCI 5565 – Assembly Language

Computer Science Core Courses (18 credits)

- CSCI 6603 – Computer Architecture (or) CSCI6623 Database Systems
- CSCI 6620 – Software Engineering
- CSCI 6638 – Operating Systems
- CSCI 6806 – Computer Science Graduate Capstone Project
- CSCI 6836 – Computer Algorithms
- CSCI 7645 – Systems Programming

Advanced Computer Programming Specialization (12 credits)

*Choose either the first 4 courses or any 3 from the first 4 plus the internship

- CSCI 6617 – Computer Game Programming
- CSCI 6809 – Advanced Applications Development
- CSCI 6844 – Programming for the Internet
- CSCI 7873 – Shell Programming
- CSCI 8891 – Internship/Work Experience

Database Administration Specialization (12 credits)

*Choose either the first 4 courses or any 3 from the first 4 plus the internship

- CSCI 6882 – Data Warehouse and Data Mining
- CSCI 7741 – Disaster Recovery
- CSCI 7781 – Advanced Database Systems
- CSCI 7783 – Information Security
- CSCI 8891 – Internship/Work Experience

Other Electives Specialization (12 credits)

*Choose any 4 courses from the list below

- CSCI 6751 – Artificial Intelligence
- CSCI 6761 – Automata Theory
- CSCI 6830 – Special Topics in Computer Science

- CSCI 6886 – Big Data Analytics
- CSCI 7785 – Distributed Database Systems
- CSCI 7850 – User Interface Evaluation and Design
- CSCI 8891 – Internship/Work Experience
- CSCI 6803/CSCI 6804 – Research and Thesis I/II
- CSCI 6805 – Graduate Research (Nonthesis)
- CSCI 6811 – Advanced Special Projects