Master of Science

Computer Science (MS)

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This program is designed for students with a strong background in computer science. ODU's Department of Computer Science supports in-depth study at the graduate level in areas such as data science, machine learning, bioinformatics, web science and digital libraries, high performance computing, cyber security, data mining, networking, software engineering, and computational foundations.

The department's MS degrees are available *both on-campus and online*.

Admission

Entrance Requirements

Students entering the Master of Science program in computer science should meet the minimum university graduate admission requirements (https://www.odu.edu/admission/graduate (https://www.odu.edu/admission/graduate/)).

In addition, an applicant must have a strong background in computer science. Students who do not have a sufficient background in computer science may enter the graduate program as *provisional students* and make up for their deficiencies by taking appropriate courses.

Two letters of recommendation from faculty members of academic institutions are required in addition to all transcripts at the postsecondary level. For students whose native language is not English, either a TOEFL score of 550 (paper-based) and 79 (internet-based) or IELTS score of 6.5 is also required.

Curriculum Requirements

The departmental requirements for the Master of Science degree are described below. All requirements must be satisfied in addition to the University requirements outlined under the University Requirements for Graduate Degrees & Certificates section of this catalog.

All degree options require 31 credit hours, including 16 credits of core coursework.

Core Courses

CS 500	Foundations of Computing	3
or CS 600	Algorithms and Data Structures	
CS 522	Introduction to Machine Learning	3
or CS 580	Introduction to Artificial Intelligence	
CS 550	Database Concepts	3
or CS 650	Advanced Databases	
CS 620	Introduction to Data Science and Analytics	3
CS 665	Computer Architecture	3
CS 690	Colloquium	1
Total Credit Hours		**16**

Colloquium

In addition to taking CS 690 Colloquium, each student is required to attend at least 10 departmental colloquiums during their MS study.

Degree Options

Three options are available for candidates for Masters degrees:

- thesis option
- project option
- course option

Thesis Option

Core Coursework	16
must include CS 600 and CS 650	
CS Electives	9
CS 699 Thesis Research	6
Total Credit Hours	**31**

Students in the thesis option are required to take CS 600 and CS 650 as part of the core coursework requirement.

The candidate is required to write a thesis and make an oral presentation of the results.

Project Option

Core Coursework		16
CS Electives		12
CS 698	Master's Project	3
Total Credit Hours		**31**

The candidate is required to prepare a written report on the project and to present it orally.

Courses Option

Core Coursework	16
CS Electives	15
Total Credit Hours	**31**

The candidate is required to complete an exit examination that requires a comprehensive written report and an oral examination.

Course Restrictions

All credit hours must be in Computer Science (CS) unless recommended by the student's MS thesis or project advisor and approved by the GPD.

No more than 12 credit hours of 500-level courses may count towards the degree requirements.

No more than 3 credit hours of CS 697 Independent Study in Computer Science may count towards the degree requirements.

Since internship is not a degree requirement, the courses CS 667, CS 668, and CS 669 *do not* count towards MS course requirements.

Although 800-level courses are primarily meant for PhD students, these courses may count as 700-level courses for the purposes of MS credit requirements.