Computer Science - Professional Master of Science (MSCPS)

The Professional Master of Science (MSCPS) is a degree program that offers possibilities for a wide range of prospective students. Whether the student is a working engineer or an undergraduate considering a career in industry, we have program options to meet their needs.

While pursuing the professional MS degree in computer science, students may choose the general program track or select from seven different subplans:

- Algorithms, Networks and Optimization
- Data Science and Engineering
- Human-Centered Computing
- Intelligent Systems
- Numerical Computation
- Robotics and Software Systems
- Cloud Computing

The Department of Computer Science has embraced this degree as an ideal opportunity to expand the high quality courses in the fields above into a wide array of courses leading to a full master’s degree. Our MSCPS program’s goal is to produce creative, workforce-ready graduates equipped with versatile specialized skills and technical leadership.

Adding several new subplan courses to our program now enables greater options for earning professional MS degree with these subplans, while also offering plenty of courses to complete a full master’s degree, principally with a subplans focus. Students pursuing this degree will also have access to many excellent graduate-level courses offered by the CS Department’s highly reputed faculty.

For more information, visit the department's Professional MS Degree Program Requirements (http://www.colorado.edu/cs/current-students/graduate-students/ms-degree/professional-ms-degree-requirements) webpage.

Dual Degree

MSCPS/EMEN in Computer Science and Engineering Management

Computer Science and Engineering Management (https://www.colorado.edu/emp) have teamed up to offer an exciting dual degree (https://www.colorado.edu/cs/current-students/graduate-students/ms-degree/dual-professional-ms-engineering-management) for MSCPS students. Student complete a total of 45 credits of graduate-level course work. Of those, 24 credits are in CS courses and 21 credits are in EMEN courses. All degree requirements must be completed within four years of the date of commencing course work.

Distance Education Option

Students can take individual courses toward a master's degree or graduate certificate through distance education (online). For more information, connect with the graduate program advisor or visit the Graduate School's Distance Education (https://www.colorado.edu/graduateschool/distance-education) webpage.

Requirements

The Graduate School (http://www.colorado.edu/catalog/2015-16/graduateschool/advanceddegrees) provides general requirements for the Master of Science in all departments at CU Boulder. The following requirements specifically pertain to students pursuing a Master of Science in the Department of Computer Science. It supplements the Graduate School requirements; in all cases not specifically mentioned below, the general Graduate School requirements are understood to apply.

While pursuing the professional MS degree in CS, you may select between two options.

General Track

Complete 30 credits of course hours, according to the course requirements listed below. The following rules apply:

- You must earn a B or better grade in four breadth courses.
- Your remaining six courses can be any approved graduate courses.
- You may take up to two non-CS approved classes.
- There is no limit on distance classes.

Subplan Option

Complete 30 credits of course hours and additional subplan and breadth requirements. Available subplans include:

- Data Science and Engineering (DSE) (https://www.colorado.edu/cs/data-science-engineering-sub-plan-requirements)
- Human-Centered Computing (HCC) (https://www.colorado.edu/cs/human-centered-computing-sub-plan-requirements)
- Intelligent Systems (IST) (https://www.colorado.edu/cs/current-students/graduate-students/ms-degree/professional-ms-degree-requirements/intelligent-systems)
- Numerical Computation (NUM) (https://www.colorado.edu/cs/current-students/graduate-students/ms-degree/professional-ms-degree-requirements/numerical)
- Robotics (RBT) (https://www.colorado.edu/cs/current-students/graduate-students/ms-degree/professional-ms-degree-requirements/robotics-sub-plan)
- Software Systems and Cloud Computing (SSC) (https://www.colorado.edu/cs/current-students/graduate-students/ms-degree/professional-ms-degree-requirements/software-systems)

The above requirements are subject to change; for the most current information, visit the department’s Professional MS Degree Program Requirements (http://www.colorado.edu/cs/current-students/graduate-students/ms-degree/professional-ms-degree-requirements) webpage.