COMPUTER SCIENCE MS ONLINE

The Master of Science in Computer Science prepares students for a wide variety of careers in computer science as well as for advanced study toward PhD degrees. The program provides a hands-on curriculum that prepares graduates to succeed in many aspects of the software industry. The online program is delivered in an accelerated eight-week course format, allowing busy adult learners to take one course at a time and complete six units each semester.

Requirements for the MS in Computer Science

Completion of all requirements as established by the department graduate committee, the graduate advisory committee, and Graduate Studies, to include:

- 1. Completion of an approved program consisting of 30 units of work. The courses listed below meet the following requirements:¹
 - a. At least 18 of the units required for the degree in 600-level courses
 - b. Completion of three graduate core courses (nine units) CSCI 611, CSCI 630, and CSCI 650.
 - c. Completion of the culminating activity course described below.
- 2. Culminating Activity:
 - a. The capstone course, CSCI 693, is taken as the last course of the graduate program. The course may be attempted a maximum of three times. Failure on the third attempt will result in dismissal from the graduate program in computer science.
- 3. Approval by the Graduate Coordinator and the Graduate Council on behalf of the faculty of the University.

| Course | Title | Units |
|-------------|--------------------------------------|-------|
| CSCI 511 | Advanced Object-Oriented Programming | 3 |
| CSCI 546 | Network Forensics | 3 |
| CSCI 570 | Advanced Database Management Systems | 3 |
| CSCI 580 | Artificial Intelligence | 3 |
| CSCI 611 | Applied Machine Learning | 3 |
| CSCI 620 | Web Technology | 3 |
| CSCI 630 | Software Design and Maintenance | 3 |
| CSCI 640 | Scalable Software Systems | 3 |
| CSCI 650 | Algorithms and Computability | 3 |
| CSCI 693 | Research Methods in Computer Science | 3 |
| Total Units | | |

Total Units

The Computer Science department, at its discretion, may substitute any listed course with an online version of a course from the in-person computer science master's program while maintaining compliance with the program requirements specified above.

Graduate Grading Requirements

All courses in the major (with the exceptions of Comprehensive Examination - 696, Independent Study - 697, Master's Project - 699P, and Master's Thesis - 699T) must be taken for a letter grade, except those courses specified by the department as ABC/No Credit (400/500-level

courses), AB/No Credit (600-level courses), or Credit/No Credit grading only. A maximum of 10 units combined of ABC/No Credit, AB/No Credit, and Credit/No Credit grades may be used on the approved program (including 696, 697, 699P, 699T and courses outside the major). While grading standards are determined by individual programs and instructors, it is also the policy of the University that unsatisfactory grades may be given when work fails to reflect achievement of the high standards, including high writing standards, expected of students pursuing graduate study.

Students must maintain a minimum 3.0 grade point average in each of the following three categories: all coursework taken at any accredited institution subsequent to admission to the master's program; all coursework taken at Chico State subsequent to admission to the program; and all courses in the approved master's degree program. Failure to maintain a 3.0 average in any category will result in academic notice in the master's program. Failure to remedy the deficiency within one semester with appropriate courses approved by the program coordinator may result in disgualification from the master's program. See Graduate Education Policies (https://catalog.csuchico.edu/graduaterequirements/graduate-education-policies/#academicstanding) for more information.

In addition, students may not count more than two courses in which they receive a grade of C toward the approved program.

Continuous enrollment is required. At the discretion of the academic program, a maximum of 30 percent of the units counted toward the degree requirements may be special session credit earned in nonmatriculated status combined with all transfer coursework. This applies to special session credit earned through Open University, or in courses offered for academic credit through Professional & Continuing Education. Correspondence courses and UC Extension coursework are not acceptable for transfer.

Graduate Time Limit

All requirements for the degree are to be completed within five years of the end of the semester of enrollment in the oldest course applied toward the degree. See Master's Degree Requirements (https:// catalog.csuchico.edu/graduate-requirements/masters-degreerequirements/) for complete details on general degree requirements.

Due to the rapid changes in the field of computer science, the Department of Computer Science requires all candidates to complete the program within five years, including projects and theses. No course validation will be allowed and no program extensions will be granted.

Graduate Requirement in Writing Proficiency

All students must demonstrate competency in writing skills as a requirement for graduation. Computer science students will demonstrate their writing competence in the English language by successfully passing CSCI 693.

Prerequisites for Admission to Conditionally Classified Status

1. Meet all Graduate Studies requirements as specified in Graduate and Postbaccalaureate Admission Requirements (https:// catalog.csuchico.edu/graduate-requirements/graduatepostbaccalaureate-admission-requirements/).

- 2. Approval by the department and Graduate Studies.
- 3. An acceptable baccalaureate from an accredited institution, or an equivalent approved by Graduate Studies.
- 4. Completion of the Graduate Record Examination (GRE) with a combined score of 300 on the verbal and quantitative portions. Graduates of an ABET accredited program in computer science are exempt from this requirement.
- 5. Submission of a statement of purpose.
- 6. Submission of two letters of reference.

Prerequisites for Admission to Classified Status

In addition to any requirements listed above:

- 1. Completion of program prerequisites equivalent to the courses below.
- 2. Students are expected to complete these courses without delay.
- 3. Courses taken for the purpose of advancement to classified status will not be used towards the MS degree.

| Course | Title | Units |
|---------------|---|-------|
| CSCI 111 | Programming and Algorithms I | 4 |
| CSCI 211 | Programming and Algorithms II ¹ | 4 |
| CSCI/MATH 217 | Discrete Mathematics | 3 |
| CSCI 311 | Algorithms and Data Structures ¹ | 4 |
| CSCI 370 | Introduction to Databases | 3 |
| CSCI 430 | Software Engineering | 3 |
| CSCI 440 | Operating Systems | 4 |

¹ Unclassified students must complete this course through Chico State.

Advancement to Candidacy

In addition to any requirements listed above:

- 1. Completion of the Graduate Requirement in Writing Proficiency (CSCI 693).
- 2. Classified graduate standing and completion of, or enrollment in, the graduate core courses.
- 3. Development of an approved program in consultation with the Graduate Coordinator.
- 4. Meet Graduate Studies requirements.