

# COMPUTER SCIENCE MS

The Master of Science in Computer Science welcomes students from all undergraduate disciplines. The program is designed to accommodate students with and without a computer science background. Students without prior computer science coursework can take all required prerequisite courses after being admitted. The program provides a hands-on curriculum that prepares graduates to succeed in many aspects of the American software industry.

## 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 as follows:
  - a. At least 18 of the units required for the degree in 600-level courses.
  - b. Completion of the three graduate core courses (nine units) CSCI 611, CSCI 630, and CSCI 650.
  - c. Completion of one-two elective Computer Science (CSCI) 600-level course (three-six units), depending on culminating activity.
  - d. Completion of four elective courses (12 units) selected from: the 500 and 600 level Computer Science (CSCI) and Computer Information Systems (CINS) courses, CSCI 411, CSCI 446, EECE 446, CINS 448, CINS 465, CINS 467 and EECE 555.
  - e. Completion of a culminating activity (p. 1) course (three-six units) in one of the three plans described below.
  - f. 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 non-matriculated 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. Transfer courses must be approved by the Graduate Coordinator.
2. Culminating Activity: Completion and final approval of one of the following three plans as approved by the Graduate Coordinator. The most common culminating experience for master's students in Computer Science is to demonstrate competency in graduate study by completion of the capstone course using plan (a).
  - a. **Capstone Course Plan**  
This plan includes 30 units of in-class coursework, including a passing score in the capstone course CSCI 693. CSCI 693 is to be taken as part of the last 9 units, or during the last semester of the graduate program. Registration in CSCI 693 must be approved by the Graduate Coordinator. 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.
  - b. **Project Plan**  
The project plan includes 27 units of in-class coursework and 3 units of project preparation (CSCI 699P). For students to be qualified to take the project path, they must have demonstrated exceptional abilities by:
    - i. maintaining a GPA of 3.5 or above in their post-baccalaureate coursework,

- ii. having been nominated by a faculty member,
- iii. having had a project proposal approved by a 2/3 majority vote of the faculty. A formal written description of the project must be submitted to Graduate Studies for approval and accession to the library.

### c. Thesis Plan

This plan includes 24-27 units of in-class coursework and 3-6 units of thesis preparation (CSCI 699T). Students opting to complete 6 units of CSCI 699T may count 3 units of the units as their elective course in 1(c) above. For students to be qualified to take the thesis path, they must have demonstrated exceptional abilities by:

- i. maintaining a GPA of 3.5 or above in their post-baccalaureate coursework,
- ii. having been nominated by a faculty member to conduct research,
- iii. having had a thesis proposal approved by a 2/3 majority vote of the faculty. This plan requires a formal research thesis, which must be submitted to Graduate Studies for approval and accession to the library.

3. Approval by the Graduate Coordinator and the Graduate Council on behalf of the faculty of the University.

## Graduate Grading Requirements

All courses in the major (with the exceptions of 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 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 California State University, Chico subsequent to admission to the program; and all courses on the approved master's degree program.

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

## Blended BS + MS (BMS) in Computer Science

The BMS in Computer Science is for highly motivated, well-qualified students. The program allows a student majoring in Computer Science to progress toward the master's degree in Computer Science while still an undergraduate.

### Eligibility

To be eligible to apply for the BMS in Computer Science a student must meet the following minimum criteria:

- be an undergraduate with a declared major in Computer Science,
- have at least a junior status and completion of at least 12 upper-division units of Computer Science courses including CSCI 311,
- have at least two semesters of coursework remaining in the major after completion of the current semester,
- meet a minimum GPA requirement of 3.0 in the major,
- secure a recommendation from a faculty member.

## Application Procedure

A student meeting the eligibility criteria may submit an application for admission to the BMS in Computer Science to the Computer Science Department. No formal application through Admissions is required, and the student is not required to pay an admissions fee. GRE scores are not required. The application must be made during the semester prior to the student's final undergraduate year. If accepted, the student will enter the BMS program the following semester. Students that will have fewer than two semesters of undergraduate coursework remaining may not be admitted to the BMS program. Admission to the BMS program does not constitute recognition of BMS graduate status. Students must meet the eligibility requirements outlined below to change to BMS graduate status and continue toward the MS degree.

## Requirements for the BMS in Computer Science

Once accepted into the BMS program as an undergraduate, the student can take graduate-level courses to meet requirements for the MS. The requirements for the BS in Computer Science are as described in the catalog section for the BS in Computer Science. All requirements for the MS are as described in the catalog section for the MS in Computer Science.

## Grading Requirement

Once entered into the BMS program, the student must maintain the minimum GPA requirement of 3.0 during their remaining undergraduate and graduate semesters.

## Eligibility for Change to, and Minimum Duration of, BMS Graduate Status

The following are minimum eligibility requirements.

- The student must successfully complete a minimum of 120 units toward BMS program requirements. These units must count toward either of the two degrees (BS or MS) that will ultimately be awarded in the blended program; they need not be restricted to those counting toward the undergraduate degree alone.
- Minimum 3.0 GPA in all coursework since entry into the BMS program.
- Prior completion of the Graduation Writing Requirement is strongly encouraged but not required.

At the conclusion of the semester that the eligibility requirements are met, the student makes a request to the Graduate Coordinator to change to BMS graduate status. A Master's Degree Program Plan is prepared and submitted to the Graduate Coordinator and to Graduate Studies. The student will be changed to BMS graduate status effective the following semester. The student must be enrolled in coursework for at least two academic semesters in BMS graduate status.

## Process to Award Both Degrees

- The student must meet all requirements for both the MS and the BS for the BMS program. Courses taken to meet the requirements of one of the degrees cannot be substituted to also count toward

the requirements of the other degree unless the student does not complete both the BS and MS as noted below.

- The student applies to Graduate Studies to graduate in the Blended BS + MS (BMS) program one semester prior to graduation.
- When it is confirmed that all requirements for both degrees have been met, the two degrees are awarded at the same time and at the same graduation ceremony.
- If a student fails to complete MS requirements, but completes undergraduate degree requirements, the undergraduate matriculation can be re-opened in order to grant the BS degree.

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 non-matriculated 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.

## 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-degree-requirements/>) 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, CSCI 699P, or CSCI 699T.

## 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/graduate-postbaccalaureate-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.
4. Meet Graduate Studies requirements.

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

<sup>1</sup> Only courses from ABET accredited programs may be used for CSCI 211 and CSCI 311.

## Advancement to Candidacy

In addition to any requirements listed above:

1. Completion of the Graduate Requirement in Writing Proficiency.
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. Formation of the graduate advisory committee, in the case of the thesis or project plan as described below, in consultation with the Graduate Coordinator.
5. Meet Graduate Studies requirements.