

BLENDED BS/MS IN COMPUTER SCIENCE



SACRAMENTO STATE

In Workflow

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Approval Path

1. Wed, 30 Apr 2025 18:03:43 GMT
Haiquan Chen (haiquan.chen): Approved for CSC Committee Chair
2. Fri, 23 May 2025 20:32:16 GMT
Katie Dickson (katiedickson): Rollback to Initiator
3. 2025-08-19T15:33:30Z
Haiquan Chen (haiquan.chen): Rollback to Initiator
4. 2025-08-19T15:36:56Z
Haiquan Chen (haiquan.chen): Rollback to Initiator
5. 2025-08-19T15:43:15Z
Haiquan Chen (haiquan.chen): Approved for CSC Committee Chair
6. 2025-08-19T16:20:53Z
Jinsong Ouyang (jouyang): Approved for CSC Chair
7. 2025-10-10T17:07:57Z
Tongren Zhu (tongren.zhu): Approved for ECS College Committee Chair
8. 2025-10-10T23:14:45Z
Behnam Arad (arad): Approved for ECS Dean

New Program Proposal

Date Submitted: 2025-08-19T15:38:34Z

Viewing: Blended BS/MS in Computer Science

Last edit: 2025-10-10T17:07:03Z

Changes proposed by: Haiquan Chen (219700833)

Academic Group: (College)

Engineering & Computer Science

Academic Organization: (Department)

Computer Science

Catalog Year Effective:

2026-2027 Catalog

NOTE: This degree major program will be subject to program review evaluation within six years after implementation.

Individual(s) primarily responsible for drafting the proposed degree major program:

Name (First Last)	Email	Phone 999-999-9999
Haiquan Chen	haiquan.chen@csus.edu	916-278-6087

Academic Master Plan Projection**Has this degree been approved for inclusion in the Academic Master Plan?**

Yes

Attach Projected Degree Proposal form

Degree Proposal.docx

New degree major proposals must receive prior approval for inclusion in the Academic Master Plan before a New Program proposal can be submitted to Workflow. Submissions to the AMP can be made through the Miscellaneous Request form.

Type of Program:

Major

Is this a pilot program?

No

Delivery Format:

Fully Face to Face

Does this major plan to include any formal options, concentrations, or special emphases?

No

Title of the Program:

Blended BS/MS in Computer Science

Designation: (degree terminology)

Blended BS/MS

Briefly describe the program proposal (new or change) and provide a justification:

The blended program combines the existing BS and MS programs in Computer Science by allowing undergrads to blend 12 units towards both degrees. This pathway program is supported by feedback from both students and industry stakeholders. Students desire such pathway program to shorten the time to gradation for obtaining advanced degrees. The market demand for advanced degrees in computer science is high. The blended program is designed to align with industry demands and provide students with the necessary qualifications to excel in their careers. This pathway program strengthens workforce readiness and supports CSU's commitment to academic excellence.

University Learning Goals**Undergraduate Learning Goals:**

Competence in the disciplines
 Knowledge of human cultures and the physical and natural world
 Intellectual and practical skills
 Personal and social responsibility
 Integrative learning

Graduate (Masters) Learning Goals:

Disciplinary knowledge
 Communication
 Critical thinking/analysis
 Information literacy
 Professionalism
 Intercultural/Global perspectives

Program Learning Outcomes

Program Learning Outcomes

Learning Outcome

- BS 1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions
- BS 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- BS 3a. Communicate effectively in speech in a variety of professional contexts.
- BS 3b. Communicate effectively in writing in a variety of professional contexts.
- BS 4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- BS 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- BS 6. Apply computer science theory and software development fundamentals to produce computing-based solutions.
- MS 1. Solve complex computer science problems by mastering, integrating, and applying advanced knowledge and skills.
- MS 2. Communicate research findings, original work, technical and non-technical support materials in writing and via oral presentation to a variety of audiences.
- MS 3. Contribute to the field of computer science by being creative and analytical
- MS 4. Obtain, assess, and analyze developments and advancements in computer science.
- MS 5. Adhere to ethical standards of the profession when conducting academic and professional activities.
- MS 6. Apply intercultural and/or global perspectives to solve problems, inform research, and make contributions to the field.

Learning Outcomes Display

Course Code	PLO 1
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Will this program be required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

Please attach a Comprehensive Program Assessment Plan

CS_BS_Assessment_Plan_and Mapping.pdf
 CSC_MS_Assessment_Plan_and Mapping.docx
 CSC MS 500502_Assessment_and_PLO_Mapping.docx

Please attach a Curriculum Map Matrix

CSC_Computer Science BSMS Roadmap_Fall21.pdf
 CSC_Computer Science BSMS Roadmap_Fall25.pdf

Please attach a five-year budget projection

Blended Five Year Budget Projection.docx

Catalog Description:

Total units required for Blended BS/MS: 108 (120-12 under) + 30 (grad) = 138

Program Description:

The Blended BS/MS program in Computer Science provides an accelerated route to a graduate professional degree, with simultaneous conferring of both Bachelor's and Master's degrees. Students in the blended program can progress from undergraduate to graduate status without applying for admission through the Office of Graduate Studies. Students are required to complete all requirements for both degrees, including senior project for the Bachelor's degree.

Admission Requirements: Course prerequisites and other criteria for admission of students to the degree major program, and for their continuation in it.

Admission Requirements

Students majoring in Computer Science will be eligible to apply to the program if they meet the following criteria:

- Completion of the WPJ or equivalent, eligible for WI course, and completion of the prerequisites for CSc 190 (Senior Project I);
- Have not yet enrolled in CSc 190 or need one academic year to meet the BS requirements;
- Have a minimum overall GPA of 3.3; and
- Have a minimum GPA in CSc 130-139 of 3.3

Application Procedures

Students interested in applying to the Blended BS/MS Program should follow the following procedure:

- Prior to Week 5 during the semester before taking CSc 190, students must complete the department application.
- Applicants do not need to pay the graduate program application fee.
- Electronic applications will be submitted to the CSc Graduate Coordinator for review.
- Upon acceptance to the program, the department will notify the Registrar's Office and the Office of Graduate Studies in the change in status of the student.
- When completing 12 units of graduate courses as specified in the program of study and other BS requirements, the student must apply for a change to graduate status and the BS degree can be awarded.

Program Requirements: (If new courses are being created as part of a new program, it will be useful to propose courses first.)

Program of Study

In the two semesters of their senior year (Year 4), students admitted to the program are required to take the following courses:

- CSC 200 Professional Writing in Computer Science (3 units)
- Three graduate-level courses in Computer Science (3 units each)

The graduate courses listed above substitute for 3 units of the BS required upper division courses and 9 units of the BS electives. When completing 12 units of graduate courses listed above and other BS requirements, the student must apply for a change to graduate status and the BS degree can be awarded. Students will be eligible to receive the MS degree when the remaining requirements for the graduate degree are completed (i.e., the requirements for the MS degree are the same whether taken separately or blended).

Minimum Units and Grade Requirement for the Degree

Units Required for the Blended BS/MS: 138

Minimum Cumulative GPA: 3.0. No graduate-level course may have a grade below "C".

Advancement to MS candidacy

No later than the second week during their first semester in graduate status (Year 5), the students taking the culminating experience are required to submit to the department a thesis/project proposal approved by their committees and apply for Advancement to Candidacy (ATC). The application for ATC must be submitted at least one semester prior to registering for CSc 500/502.

Each student must file an application for Advancement to Candidacy with the Office of Graduate Studies indicating a proposed program of graduate study for the completion of the graduate portion of the BS/MS program. This procedure should begin as soon as the classified graduate student has:

- completed or currently enrolling with a minimum of 12 units of CSc 200 level courses in the graduate program with a minimum 3.0 GPA; and
- taken or currently enrolling with CSc200 with a grade of at least B.

Each student must be advanced to candidacy prior to registering for CSc 500/502. Advancement to Candidacy forms are available on the Office of Graduate Studies website.

Opt-Out Option

Students who wish to opt out after completing the four graduate courses and other BS requirements may do so and the four graduate courses substitute for 3 units of the BS required upper division courses and 9 units of the BS electives.

The total number of units required for the BS degree will be the same (120 units) as for students who are not in the blended program.

For undergraduate programs, provisions for articulation of the proposed major with community college programs:

Courses for the Blended program that are required in the BS in Computer Science program already have established articulation agreements with community college programs.

Will this program require specialized accreditation?

Establishment of a master's degree program should be preceded by a national professional accreditation of the corresponding bachelor's degree major program.

Will this program require accreditation?

No

Need for the Proposed Degree Major Program

Is the proposed degree program offered at any California State University campus or any neighboring institutions?

Yes

List of other California State University campuses currently offering or projecting the proposed degree major program; list of neighboring institutions, public and private, current offering the proposed degree major program:

CSU LA
CSU Chico

Differences between the proposed program and the programs listed above:

The proposed program offers both BS and MS degrees with certificates on multiple focus areas with specialized knowledge and skills.

List of other curricula currently offered by Sac State which are closely related to the proposed program:

The proposal blends together the existing curriculum for the BS and MS in Computer Science.

For graduate programs, the number of declared undergraduate major and the degree production over the preceding years of the corresponding baccalaureate program:

The number of undergraduate majors in Fall 2022, Fall 2023, and Fall 2024 are 781, 864, and 903, respectively.

The number of degrees conferred in the baccalaureate program in 2021-22, 2022-23 and 2023-24 are 296, 282, and 356, respectively.

Professional uses of the proposed degree major program:

Students who complete the blended program will be well prepared with both theoretical knowledge and practical skills to enter the workforce not only in the core areas like software development, web and mobile app creation, systems architecture, cloud computing, and network engineering but also in the cutting-edge fields such as artificial intelligence, machine learning, data science, game development, human-computer interaction, robotics, and cybersecurity.

Existing Support Resources for the Proposed Degree Major Program

Space and facilities that would be used in support of the proposed program: Show how this space is currently used and what alternate arrangements, if any, will be made for the current occupants.

NA

Library resources to support the program, specified by subject areas, volume count, periodical holdings, etc.:

NA

Equipment and other specialized materials currently available:

NA

Additional Support Resources Required**Reviewer Comments:**

Katie Dickson (katiedickson) (Fri, 23 May 2025 20:32:16 GMT): Rollback: In preparation for the summer 2025 Curriculum Workflow software update, all course and program proposals have been moved out of Workflow. Submissions to Workflow will resume Monday, August 11, 2025. Please contact Academic Services at catalog@csus.edu with any questions.

Haiquan Chen (haiquan.chen) (Tue, 19 Aug 2025 15:33:30 GMT): Rollback: rollback

Haiquan Chen (haiquan.chen) (Tue, 19 Aug 2025 15:36:56 GMT): Rollback: rollback

Key: 604