Appendix A: TEMPLATE FOR ANNUAL PROGRAM REPORT REVIEW *(See preceding document for detailed descriptions for each section)*

ANNUAL PROGRAM REPORT

College	College of Science
Department	Computer Science
Program	M.S. Computer Science
Reporting for Academic Year	2024-2025
Last 5-Year Review	2022-2023
Next 5-Year Review	2027-2028
Department Chair	Levent Ertaul
Author of Review	Xiaojun Ruan
Date Submitted	9/30/2025

I. SELF-STUDY *(suggested length of 1-2 pages)*

A. Five-Year Review Planning Goals

Present your planning goals from your last 5-year plan.

The last 5-year review for the Department of Computer Science was conducted during the 2022-2023 academic year. The subsequent report was finalized in May 2023; therefore, we will refer to that report in this document. Our 5-year review lists new department goals for the following five years. These goals relate to the university goals of reducing time to graduation, increasing retention of students, and eliminating equity gaps. Goals are summarized by category here.

Curriculum:

1. To teach students the most important skills that are required by the industry
2. To educate students as unique individuals equipped with quality and depth of information in the diverse fields of computer science empowered by inspiring intellectual curiosity, critical thinking, and creativity
3. To prepare students for full and ethical participation in a diverse, multi-cultural society and encourage them to be lifelong learners who will contribute positively to the economic well-being of our region and nation
4. To prepare students to tackle complex 21st century challenges facing the world

Students:

1. Provide ongoing support for student advising at both the undergraduate and graduate level.
2. Improve student experience and B.S. graduation rate.
3. Reduce time to graduation for B.S. Students, both native CSUEB students and transfer students.
4. Implement mechanisms to make student research projects available to the student population. Use

same mechanisms for internship experiences, peer advice, and references.
5. Work with AACE to increase recruiting on campus, both for graduates and students seeking internships.
6. Develop mechanisms for handling growth in the undergraduate program and right-size graduate program to fit department resources.

Faculty:

1. Recruit new faculty to reduce reliance on lecturers and to provide opportunities to offer classes and research support in areas of current Computer Science areas of development.
2. Encourage professional development.
3. Develop department by-laws.
4. Develop department leadership.
5. Address workload of faculty, specifically four course per semester teaching load.
6. Address support for faculty supervision of student research.

Resources:

1. Find facilities for department faculty offices, teaching labs, and research labs, including co-locating office space to provide opportunities for faculty to work together more easily.
2. Improve relationship with ITS (Instructional Technology Services. to support teaching and research needs.
3. Upgrade labs and environments used for class assignments, student research.
4. Address funding for readers, TAs, and travel to academic conferences.
5. Address need for library resources, specifically to support graduate courses.
6. Continue to develop Industry Advisory Board

B. Progress Toward Five-Year Review Planning Goals

Report on your progress toward achievement of the 5-Year Plan. Include discussion of problems reaching each goal, revised goals, and any new initiatives taken with respect to each goal.

New 5 year plan was just created

Curriculum

As previously mentioned, our new 5-year plan was created in Fall 2022. Our department faculty strive to meet our department goals by providing education on the most up to date and current technologies. We aim to inspire intellectual curiosity, critical thinking, and creativity. Computer Science and computing technologies are changing rapidly. At the same time, modern society grows ever more dependent on this technology. The computer science curriculum faces constant evolutionary pressure to integrate new topics and technologies. Recent advanced topics in Cyber Security, Artificial Intelligence (AI), Machine Learning, Extended Reality (XR)/Immersive Computing (IC), Cloud Computing, System Design, and Drone technologies have been integrated into our graduate and undergraduate curriculum. A new concentration in AI and Machine Learning is available in Fall 2025. We are developing new labs and purchasing equipment via A2E2 funds to provide hands-on project-based experiences in these areas for our students.

The MS in Computer Science program enrolled 126 students at the start of Fall 2025, reflecting a 22.7% decrease from 163 students in Spring 2024. The degree now offers two concentrations: Computer Science

and Artificial Intelligence & Machine Learning (AI/ML). The AI/ML concentration launched in Fall 2025. Both concentrations share a common core of five required courses (15 units), with the remaining 15 units consisting of electives and a capstone experience.

All graduate courses are offered in the on ground or hybrid 50/50 mode to accommodate our international student population who must comply with ICE regulations for F1 students. We will continue to offer courses in these formats. Topics (CS 697) courses include: Advanced Systems Design and Augmented Virtual Reality. Our Drone course has been postponed due to regulatory issues, absence of lab space and absence of tech support.

Computer Science is a laboratory-based science. Unfortunately, for a long time, the CSUEB CS students were missing hands-on lab experiences for advanced, graduate courses. We have addressed this and currently the CSUEB CS Department has five labs as shown below, to support various hands-on, project-based courses. This year, we have a large Computer Lab space in Braddock Center for XR/ML lab. Also we have 6 spaces in the Collaborative research lab (shared with ENG Dept) in the same building. The issue with some of these labs, however, is that they are not large enough to support an entire class of students. This is due to restricted space on campus. The CS department still does not have our own technician yet.

Supported classes Graduate Program:

CNNS (Computer Networks Network Security) Lab

- CS 641 Advanced Computer Networks
- CS 671 Cyber Security

IoT Lab

- CS 685 IoT Technologies (new elective course)

AI/Deep Learning Lab

- CS 607 Parallel Programming
- CS 661 Advanced AI
- CS 667 Machine Learning

XR/IC Lab

- CS 697 Topics in Computer Science–Immersive Computing Technology: Extended Reality (XR)

Drone Lab

- CS 697 Drone Technologies

A2E2 funds were used for equipment to support our Computer Networks, Advanced Computer Networks, Wireless Networks, Network Security, Cyber Security, IoT, XR/IC, AI and Deep Learning Labs. These funds enabled our department to move our current curriculum toward a hands-on approach.

The MS Computer Science program offers three choices for a capstone experience: comprehensive exams, project, or thesis. Students give zoom presentations of their work to faculty and students at the end of each semester. A shared google drive is used to archive capstone projects making them available to other interested students. Students are also encouraged to archive their capstone projects with the CSUEB library. In the past year we had 11 projects completed and one thesis as listed below:

Capstone Projects (CS 693) Fall 2024-Spring 2025

Dr. Grewe: Capstone: Rakshit Shah, "InstructAware: Situational Awareness through Generative Instructional Narration from Environmental Cues"

Dr. Grewe: Capstone2: Yatish Sekaran, "WalkAware: Comparison of Models for Walkway Damage Detection with Generative Instructional Narratives to Enhance Mobility for the Visually Impaired"

Dr. Derakhshandeh: Enhanced Drone Navigation System with Vision Transformers for Sidewalk Accessibility, Sailesh

Dr. Derakhshandeh: Object Classification using Search and Rescue Robots, Imran

Dr. Derakhshandeh: Collision Avoidance Problem using Autonomous Cars, Naman

Dr. Derakhshandeh: AI Agent for unittest generation, Naman and Sashkam

Dr. Derakhshandeh: A Natural Language-Driven Robotic Assistant for Enhancing Daily Independence in Individuals with Mobility Impairments, Sharmila

Dr. Daneshyari: Tanu Priya (Capstone Project, Spring 2025, Developing app using COT in LLM)

Dr. Daneshyari: Indraneel Parthasarathy (Capstone Project, Spring 2025, Developing app using COT in LLM)

Dr. Daneshyari: Yash Kumar (Capstone Project, spring 2025, Pioneer: Fine-tuning LLM)

Dr. Hongmin Li: Anh Tran, An AI Web Application for US Citizenship Test

Amit Anantrao Patil was selected for CSUEB Gradslam Finalist

Our ILO and PLO assessment schedule has been updated for the next 5 years. This past year we evaluated ILO1: Quantitative Reasoning and ILO4: Collaboration in CS 651 Web Systems.

Students

In Fall semester 2023, we had 206 students enrolled in the MS Computer Science program (see Table 1). Students are primarily international students coming from India/Asia. Table 5 Shows that in Fall 2023, 98% of graduate students identified as Asian with 2% identifying as European or White. Gender breakdown for our program is 40% Female and 60% Male. Due to students completing the program at the end of Fall 2023, enrollment dropped to 163 students. Again, referring to Table 4, we see that the percentage of students identifying as Asian remained at 98%, however, looking at gender we see that female enrollment dropped to 36%. The enrollment continues to drop to 126 students at the start of Fall 2025.

Formal advising is essential for supporting international students as they navigate immigration, academic, and post-graduation requirements. In Fall 2025, Dr. Xiaojun Ruan is serving as Interim Graduate Coordinator while Dr. Leann Christianson is on sabbatical. Dr. Christianson will return as Graduate

Coordinator in Spring 2026. Both Dr. Christianson and Dr. Ruan continues to advise interested applicants, process applications, advise current students, and complete paper work required for international students (OPT,CPT).

We had 20 international students pursuing internships (CPT) and enrolled in CS 698 during the Fall 2023 to Summer 2024 year. Our students have been employed at the following sites: Wanclouds Inc, Perjury AI, Delisis Inc, Caterpillar Inc, Magnit Global, Live Nation Entertainmet, Brave Spaces LLC, Atmecs Global, Soundromeda, Inc., Amazon, WashMetrix LLC, UL Solutions, Onix Networking Corp, Juniper Networks, UL Solutions, Omatochi, and CXApp US, Inc.

Students in CS 698 complete a report on their internship experiences which is shared with all students. This way others can learn about internship experiences and the companies recruiting our students. Our department works with AACE recently renamed the Career Empowerment Center to facilitate and advertise internship and recruiting events.

To help students form a community within the department, we sponsor Hackathons, a Google Developers club, and a chapter of the ACM-W (a woman in computing organization). Our department and faculty also facilitate Zoom and on campus presentations from industry leaders.

Faculty

One of our primary goals is to recruit and maintain tenure track faculty. We currently are short-staffed due to retirement and attrition. We hired one faculty member who started teaching in Fall 2023, but then left in Spring 2024 for a higher paying faculty position. Faculty salaries are below those of other universities. We hired one tenure-track faculty Dr. Xiantian Zhou who started in Fall 2024 and two new tenure-track faculty Dr. Babak Esmaeili and Dr. Yashas Hariprasad who started in Fall 2025. We are highly dependent on lecturers. We struggle with the need to co-locate faculty, lecturer, and research space to provide opportunities for faculty and students to work together more easily. We are pleased that some lab space has been provided for two faculty in the new Braddock Center for Science and Innovation, however the space is limited and is not large for classroom use.

C. Program Changes and Needs

Report on changes and emerging needs not already discussed above. Include any

changes related to your programs such as program additions and changes, Diversity, Equity and Inclusion efforts (including closing the equity gaps), and any significant events which have occurred or are imminent, program demand projections, notable changes in resources, retirements/new hires, curricular changes, honors received, etc., and their implications for attaining program goals. Organize your discussion using the following subheadings.

Overview:

faculty retiring, program growth – already stated above

Curriculum:

Removed Math 225 as prerequisite, added AI/ML concentration

Students:

98% of graduate students are international/India/Asia with 2% domestic.

Faculty:

Faculty: Fall 2024 – Spring 2025

Name	Time Base
Brown, Kevin	1.0
Christianson, Leann	1.0
Danesharya, Moayed	1.0
Derakshandeh, Zahra	1.0
Erickson, Varick	1.0
Ertaul, Levent	1.0
Grewe, Lynne	1.0
Johnson, Matt	1.0
Li, Hongmin	1.0
Roophavar, Farzan	1.0
Ruan, Xiaojun	1.0
Zhong, Fay (DIP)	1.0
Xiantian Zhou (New hire Fall 2024)	1.0
TOTAL FTEF	13.0

Two of our senior faculty (Dr. Johnson and Dr. Roophavar) have started the FERP program in Fall 2024. In addition, Dr. Brown was reassigned to full-time Director of Graduate studies and will no longer be teaching classes for our department. Dr. Zhong was on Difference-In-Pay (DIP) leave for Fall 2024 to Spring 2025. We are dependent on lecturers and need to hire new faculty.

An important issue in hiring is salaries. Our most recent hire, Dr. TianTian Chen worked at CSU East Bay for one semester in Fall 2023. She then left in Spring 2024 to teach at Santa Clara University. We note the salary offered at Santa Clara was higher than CSU East Bay. We nearly lost another faculty member in Spring 2024 due to a higher salary and lower teaching load at Northeastern University. This faculty member was given a 28% raise. We

now have salary inversion where at least three faculty of higher rank make less than this person. When the other faculty members applied for an equity salary raise in August 2024, they were rejected. The faculty member hired in Fall 2024 received a significantly higher starting salary than those hired in previous years, nearly equivalent to that of an Associate Professor.

We have approximately 14 lecturers. Hiring and keeping faculty has proven difficult over the years due to salary disparities between academic and industry positions, the high cost of living in the Bay area, and CSU East Bay faculty workload.

In Fall 2024, our department offered 19 sections of graduate courses and 66 sections of undergraduate courses.

In Spring 2025, our department offered 16 sections of graduate courses and 57 sections of undergraduate courses.

Staff:

Janet Snyder has been promoted to Student Services Coordinator for the College of Science Student Service Center, and her previous position has not yet been filled. Once significant concern is the change of job responsibilities for the Student Services Coordinator CS position. The original position explicitly listed tasks that helped to support the Graduate Coordinator with administrative tasks related to admissions. This was critical since the department has had over 1,000 applicants in the past. Re-written position no longer includes this support.

Resources: (facilities, space, equipment, etc.)

Currently our classroom labs are SC N336, AE 0393 and a small room SC N104 which are all shared. They are just CS teaching Labs. With the increase in undergraduate students over the last 5 years, the need for adequate classrooms has risen. We are offering more classes with lab components; therefore, we have a need for classrooms with computer labs. As we do not have adequate lab spaces at this time, we are having difficulty offering new courses such as XR, Deep Learning, and Introduction to Drones. We need more instructional labs to offer those classes.

The department also needs more physical lab space for research. Currently, we have seven labs including the computer networks and network security lab (CNNS), XR lab, AI and deep learning lab, parallel computing lab, drone lab, IoT lab, and iLAB. We have more than 50 types of lab equipment including routers, sensors, GPU servers, XR headsets, drones, 3D printers, robotic arm, etc. However, we do not have any dedicated rooms for each lab, but only a small room in VBT 218 for the computer networks and network security lab, which is an instructional lab for teaching CS 441. We desperately need more lab space to store the equipment and to allow computer science faculty and almost 1,000 computer science students to work on their research projects. This year, we have a large Computer Lab space in Braddock Center for XR/ML lab. Also we have 6 spaces in the Collaborative research lab (shared with ENG Dept)

in the same building. The issue with some of these labs, however, is that they are not large enough to support an entire class of students. This is due to restricted space on campus.

The need for additional resources to fund graders, Teaching Assistants, and travel to academic conferences continues to be critical for the Department. The lack of funding is especially an important factor as we attempt to hire new faculty who are especially in need of grading support and are expected to publish and present at conferences. This greatly affects the ability of new tenure-track faculty to pursue research.

To facilitate these labs the Computer Science department needs a dedicated Information Technology administrator.

Other resources that would benefit the department include travel funds for research conferences and presentations, funds for student activities such as clubs and hackathons, funds for teaching assistants and graders, and funds for research equipment, software, and classroom needs.

Assessment:

This year we assessed
DEI Initiatives:

The DEI initiatives are focused on the undergraduate Computer Science courses. Please refer to the BS Computer Science annual report for a list of these initiatives and plans to address inequities.

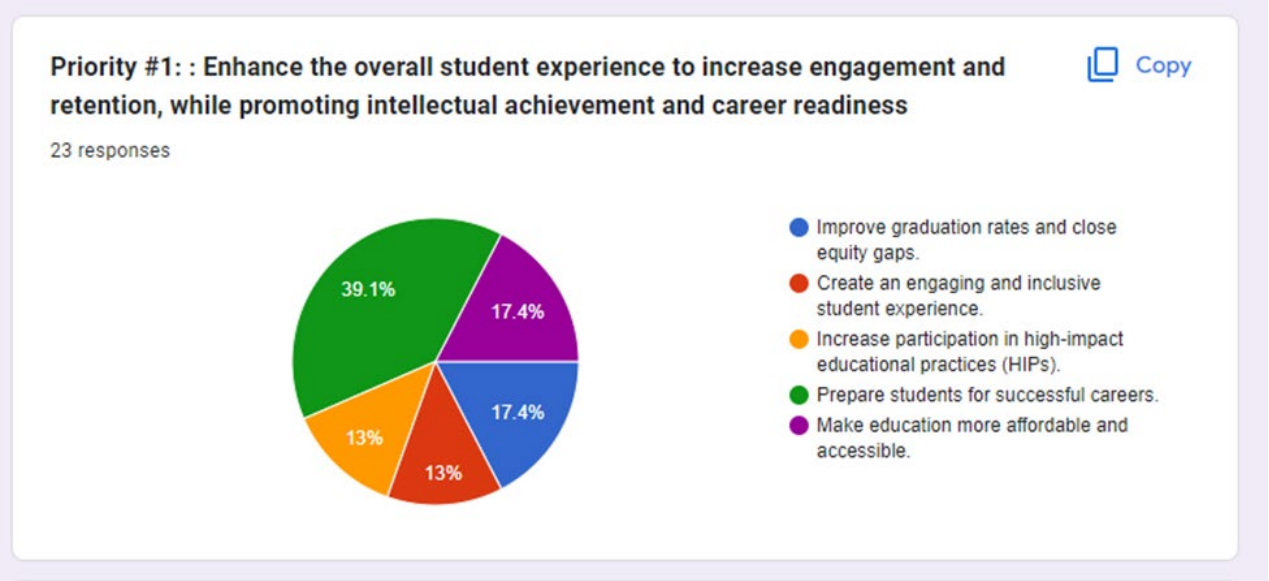
Other: (e.g., major program modifications)

We updated the catalog modalities for some graduate courses and added an Artificial Intelligence and Machine Learning concentration to the graduate program.

CS Future Directions and Action Plan

Recently, the CSUEB CS Department identified four out of the five priorities defined by CSUEB for the department's future directions and prepared an action plan for the identified priorities as shown below.

Priority #1: Prepare students for successful careers.



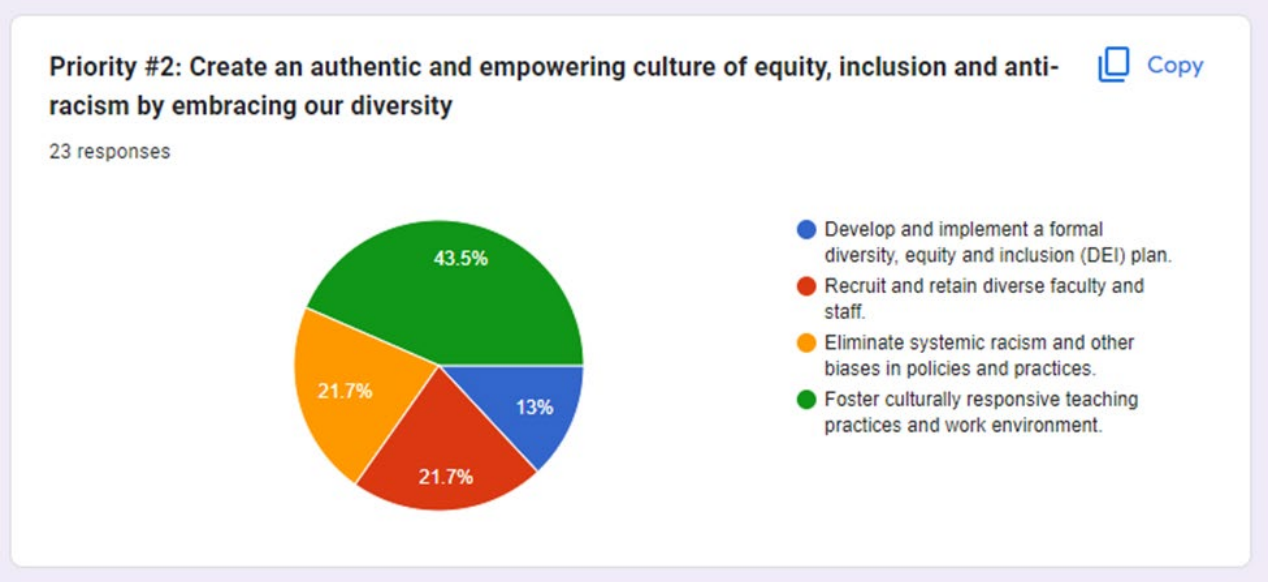
Actions for Priority 1.

1. Track activities that are relevant for preparing students for successful carriers, e.g., interview class, labs, industry talks, resume workshops, etc.

2. Track special topics classes - make sure that they cover current industry trends in the CS field

3. Track Internships

Priority #2: Foster culturally responsive teaching practices and work environment.

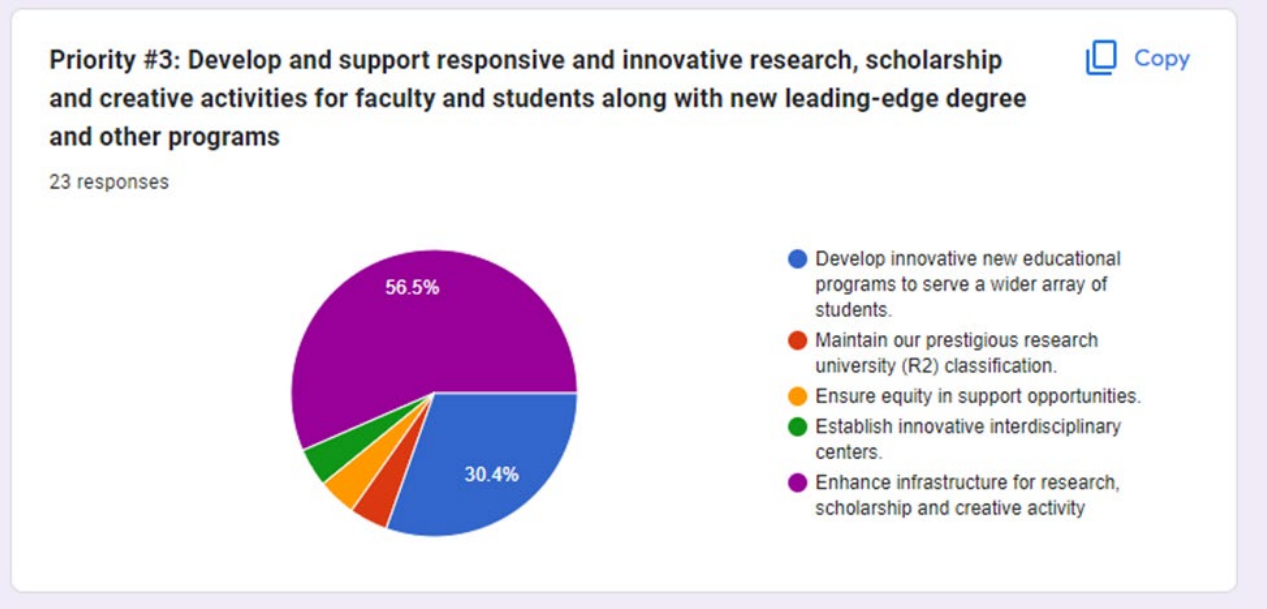


Actions for Priority 2.

1. Maintain a list of online teaching/training workshops available for faculty and record which faculty members have completed which training, e.g., COS JEDI training programs.

2. Organize related workshops or discussions every year, e.g., organize an open house for CS faculty and students. This will be combined with the alumni or industrial board meetings when we invite alumni, industry guest speakers and students to participate.

Priority #3: Enhance infrastructure for research, scholarship and creative activity.



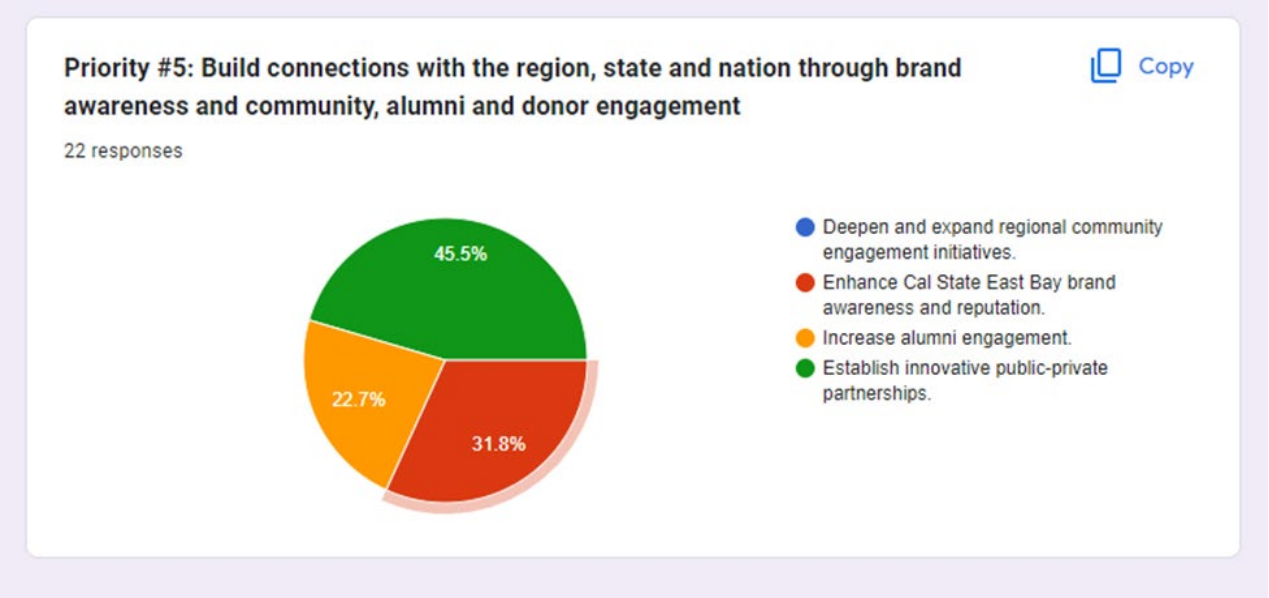
Actions for Priority 3

1. Create a list of our research labs and equipment, e.g., the new security lab, XR lab, drone lab, AI/ML lab, etc. Possibly record the newly purchased equipment each year. In addition, we can send out surveys to faculty and students to see what they want for their research projects and then make plans for the next year.

2. Record a list of faculty/student collaborative research projects and outcomes. Host several open lab events. Facilitate hackathon events.

3. Track professional activities.

Priority #5: Establish innovative public-private partnerships.



Actions for Priority 5

1. Organize industrial board and advisory board meetings
2. Organize on campus CS alumni events
3. Organize small group site visits to local companies
4. Reach out to local companies to create partnerships

In the coming years, the CSUEB CS Department will implement the above action plans for its priorities.

II. SUMMARY OF ASSESSMENT *(suggested length of 1-2 pages)*

A. Program Learning Outcomes (PLO)

List all your PLO in this box. Indicate for each PLO its alignment with one or more institutional learning outcomes (ILO). For example: "PLO 1. Apply advanced computer science theory to computation problems (ILO 2 & 6)." Program Learning Outcome(S) Assessed. *List the PLO(s) assessed. Provide a brief background on your program's history of assessing the PLO(s) (e.g., annually, first time, part of other assessments, etc.)*

PLO1 Apply knowledge of mathematics and computational theory to analyze problems in computer science and assess and determine the resources and requirements needed for their solution.

PLO6 Function successfully on teams to accomplish a common goal and explain computer science concepts effectively in written and oral form.

ILO1: Quantitative Reasoning

ILO2: Communication

Classes Assessed: CS 611 Theory of Computation & CS 671 Cybersecurity – 2023-2024

PLO2 Design, develop, and evaluate a computer-based system, process, component, or program to meet desired needs.

ILO1: Quantitative Reasoning; ILO4: Collaboration

Class Assessed: CS 651 Web Development 2024-2025

PLO3 Classify and explain the mechanisms, components and architecture of computing systems.

ILO1: Quantitative Reasoning

Class Assessed: CS 621 Operating System – 2025-2026

PLO4 Employ current techniques, skills, and tools necessary for computing practice and justify the need for continuing professional development.

ILO1: Quantitative Reasoning

Class Assessed: CS 601 Advanced Algorithms - 2026-2027

PLO5 Discuss professional, ethical, legal, and security issues and responsibilities, and the impact of computing on individuals, organizations, and society.

ILO1: Quantitative Reasoning

ILO2: Communication

Class Assessed: CS 601 Advanced Algorithms - 2027-2028

PLO6 Function successfully on teams to accomplish a common goal and explain computer science concepts effectively in written and oral form.

ILO1: Quantitative Reasoning

ILO2: Written Communication

Class Assessed: CS 671 Cybersecurity 2028-2029

B. Summary of Assessment Process

Summarize your assessment process briefly using the following sub-headings

Instrument(s):

We assess the Computer Science program in five courses that are required for all students. These include CS 601 Advanced Algorithms, CS 611 Theory of Computation, CS 621 Operating Systems Design, CS 651 Web Systems, and CS 671 Cybersecurity. We have a 5-year plan for assessing the ILOs for a particular course each year as shown above along with the associated PLOs. Summative assessments include multiple-choice questions that students complete at the end of the course or for written assignments assessed with the university's written assessment rubric. Assessments are delivered through Canvas or Google forms. A score of 60% proficiency was chosen to indicate that a student has met expectations for a particular PLO. Elective courses are not assessed.

In the past year we assessed the ILOs of Web Development (CS 651) which also maps to PLO2.

Fall 2024 CS651

Sampling Procedure:

Questionnaire with 10 questions distributed through Canvas. Scores range from 0 – 10 with 1 point per question. 31 students took the questionnaire.

Data Collection: *(include when, who, and how collected)*

The instructor gathered the results from the Canvas Assessment and distributed them to the department assessment coordinator.

Data Analysis:
The number of Students: 25 students earned more than 89%, 5 students received score between 80% to 89%, 1 student received 79%.

C. Summary of Assessment Results

Summarize your assessment results briefly using the following sub-headings.

Main Findings:

These assessment scores are excellent, and we are happy our students are meeting the learning outcomes of these courses. We would, however, like to see a larger number of responses.

Recommendations for Program Improvement: *(changes in course content, course sequence, student advising)*

Currently, we do not see a need to change course content, sequence or advising. However, a more convenient and consistent method of deploying the assessments and gathering data is needed.

Next Step(s) for Closing the Loop: *(recommendations to address findings, how & when)*

Our results were positive and show that students are learning content aligned with our PLOs in the classes assessed. Findings will be disseminated to the department graduate committee and then to the department at large.

Other Reflections:

We in the department should regularly review the assessment quizzes and assignments regularly to update them along with any evolution of course content. We are investigating a better, automatic method of deploying and collecting assessment results. We also would like to compare the effectiveness of in-person, online, and hybrid instruction.

D. Assessment Plans for Next Year

Summarize your assessment plans for the next year, including the PLO(s) you plan to assess, any revisions to the program assessment plan presented in your last five-year plan self-study, and any other relevant information.

In the next academic year, we will assess PLO3 "Classify and explain the mechanisms, components and architecture of computing systems" This does not map to an ILO and will be assessed in CS 621 Operating Systems Design.

III. DISCUSSION OF PROGRAM DATA & RESOURCE REQUESTS *(suggested length of 2 pages)*

Each program should provide a one-page discussion of the program data available through University Dashboard. This discussion should include an analysis of trends and areas of concern. Programs should also include in this discussion requests for additional resources including space and tenure- track hires. Resource requests must be supported by reference to University Dashboard data.

Requests for tenure-track hires should indicate the area and rank that the program is requesting to hire. If a program is not requesting resources in that year, indicate that no resources are requested.
Enrollment Trends

A. Discussion of Trends & Reflections Notable Trends;

Summarize and discuss any notable trends occurring in your program over the past 3-5 years based on program statistics (1-2 paragraphs). You may include 1-2 pages of supplemental information as appendices to this report (e.g., graphs and tables).

The department specifically tried to decrease the size of the graduate program when it reached 246 students due to lack of resources, mainly faculty. After two years, we feel we have a healthy number at 163. Enrollment of undergraduate students has continued to increase from 2017-2023. (See Table 2). As graduate courses require PhD instructors and with two faculty on FERP, we are still facing a faculty shortage. The Computer Science concentration is favored by all of the graduate students at this time though we are getting new inquiries about the Computer Network concentration and also believe the AI Machine learning concentration will draw students due to the prevalence of AI at this time. (See Table 3). We are seeing an increase of male students and a decrease in female students (Table 5). As has long been the trend, 98% of our graduate students identify as International/Asian. (See Table 5). International students require more resources for advising due to immigration policies and procedures. Time to degree is currently averaging at 1.84 years. (See Table 6)

Reflections on Trends and Program Statistics:

Provide your reflections on the trends discussed above and statistics and supplemental information presented in this report.

The department will continue to do extensive outreach to local universities and universities that serve under-represented groups, and recruit at conferences and other events where possible.. In every university survey, local or system wide, it has been shown that faculty salaries and workload issues are the top two issues faced when trying to hire new faculty. That is why we requested at least a 20% increase in our compensation for Tenure Track faculty candidates compared to last year's accepted offer. In the last five years we never were able to hire any Tenure Track candidates who were in our top 1-3 eligible candidates list.

The primary goal regarding resources is to address the need to co-locate faculty, lecturer, and research space to provide opportunities for faculty and students to work together more easily. The department was pleased that space was made available in the new Student and Faculty Support (SF) building for the department office and faculty offices. Unfortunately, space was not made available for all department faculty, excluding faculty participating in the FERP program, all lecturers and any new faculty resulting from ongoing searches. Ideally, it would be beneficial to house the entire department in one place with enough space made available for desired growth. In addition, the faculty offices are far from both the teaching rooms and labs, making it less convenient for students to attend office hours or seek advice.

The Computer Science Department is one of the largest departments in the College of Science. Within the last couple years, it is the only department with enrollment growth in the College of Science. It also has the largest master's program with the highest number of international students. Even though it is the largest department in many ways within the college of science, it suffers from a lack of sufficient teaching and research lab space, regardless of location. We currently have only three, shared, computer classrooms available to support our program: SCN 336, SCN 104 and a classroom in AE 0393. Through the generosity of the College of Science, the department was able to create an open Computer Science Lab for students to use outside of the classroom in SCN 337. This year, we have a large Computer Lab space in Braddock Center for XR/ML lab. Also we have 6 spaces in the Collaborative research lab (shared with ENG Dept) in the same building. The issue with some of these labs, however, is that they are not large enough to support an entire class of students. As our external reviewer mentioned, when we seek accreditation our relative lack of teaching and experimental lab space would be a major concern to the accrediting board.

When it comes to research labs, the department needs more physical lab space as we have only shared spaces with other departments. Currently we have seven labs, including: the Computer Networks and Network Security lab, XR lab, AI and Deep Learning lab, Parallel Computing lab, Drone lab, IoT lab and iLAB. We have more than 50 pieces of lab equipment including routers, sensors, GPU servers, XR headsets, drones, 3D printers, robotic arm, etc. More lab space to store the equipment and to allow faculty and students to work on their research projects.

The department has been involved in discussions with the Dean of the College of Science in order to address the lack of teaching lab space. We will have yet another shared lab space in the new science building. This could be enough for some research activities, but it is definitely not enough to teach XR and Drone classes. We need permanent, Computer Science only, teaching labs.

In addition to the lack of space, the Computer Science Department is the only department in the College of Science, and in all the CSU Computer Science departments, that does not have its own technician. The technician that IT has designated to the Computer Science department is shared by all the departments within the College of Science.

Since we have the labs mentioned above, the department needs physical teaching and research space for faculty and students as well as a dedicated technician who will support teaching and research activities for CS students and faculty.

We continue to work with ITS (Instructional Technology Services) to support teaching and research needs. Centralization of equipment by ITS has proven to be a serious concern, impacting both teaching and research goals of the department. Servers supporting student work and necessary for teaching classes in Database Administration, Network Administration, Network Design and the like have been taken from departmental control. These servers have either not been replaced at all or have been replaced with virtual counterparts which provide much less functionality than the originals. For instance, BayCloud virtual images has been suggested as a temporary solution, but it does not provide the functionality needed in the long term. The department is having discussions with ITS to attempt to find solutions to this problem.

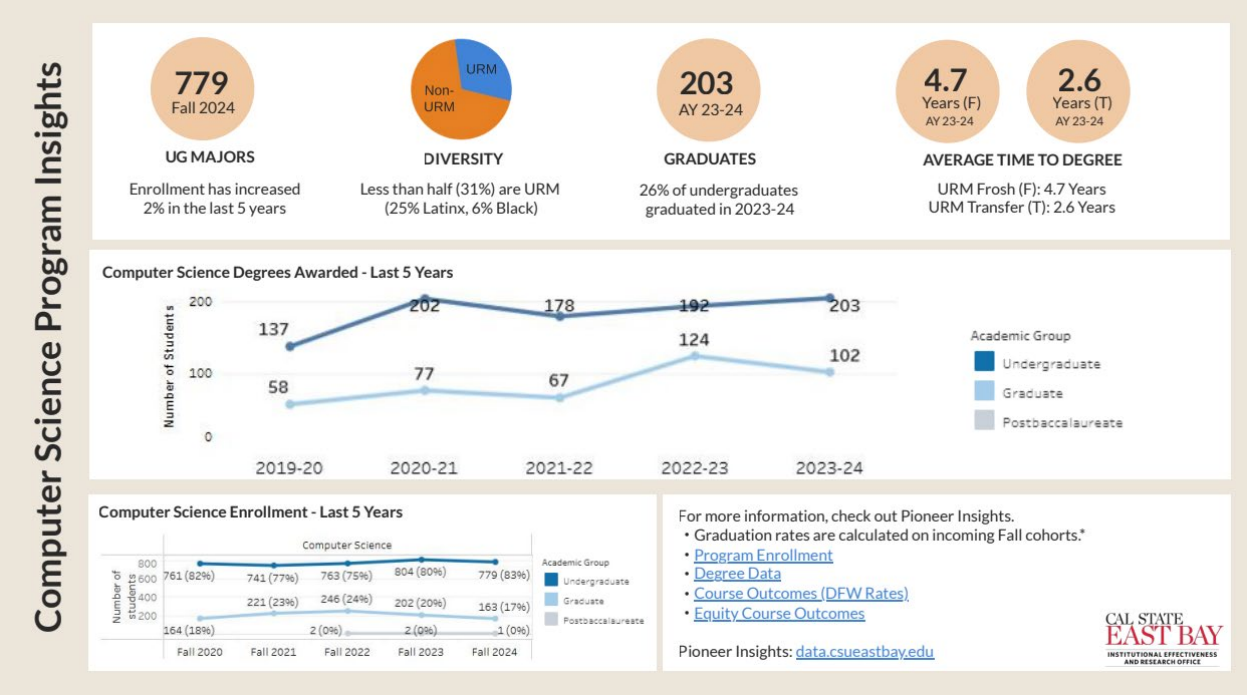


Table 0 Fall 2025 Enrollment

Graduate	Apps	493
	Admits	242
	SIRs	130
	Enrollees	40

Term	College	Department	Academic Career	Academic Plan Code	Academic Plan	Option Code	Option Description		
Fall Semester 2025	Total	758							
	⊞Science	Total	758						
		⊞Computer Science	Total	758					
			⊞Postbaccalaureate	Total	126				
			⊞Undergraduate	Total	632				

Table 1 MS CS Enrollment Fall 2024

CALIFORNIA STATE UNIVERSITY EAST BAY

Summary of Academic Plans by College by Department by Gender and Ethnicity (4001C)

This report summarizes the number of academic plans (majors) by college, department, gender and ethnicity. It includes all majors, second majors, and minors in a specific college and department and summarizes gender and ethnicity. Detail information is also available.

Term: Summer Session 2024, Spring Semester 2024, Fall Semester 2023

College: Science

Department: Computer Science

Major/Minor: Computer Science MS

Term	College	Department	Gender	Ethnicity	Master	Total	Minor
⊞ Fall Semester 2023	Total				206	206	0
⊞ Spring Semester 2024	Total				163	163	0
⊞ Summer Session 2024	Total				100	100	0

(Source: Pioneer Data Warehouse) Page 1 of 1 Run Date: 9/11/2024

Table 2 – Enrollment Computer Science Fall 2012-2024 Undergrad and Grad

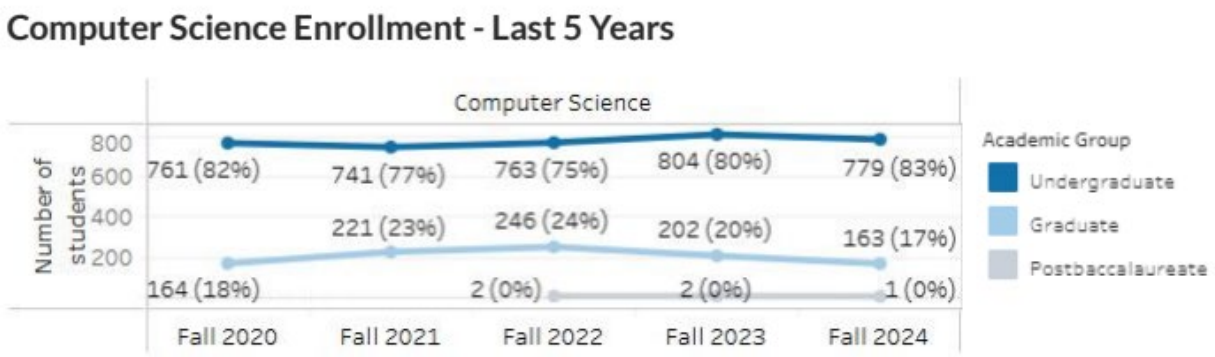


Table 3 MS Computer Science Concentration Enrollment

Concentration Enrollment

CSCI: Computer Science							
Major_Desc..	Academic Group	Concentration	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023
Computer Science	Undergraduate	Computer Engineering	2				
		Networking & Data Communic	3	2			
		Software Engineering	11	4	2		
	Graduate	Computer Networks	3	1	2	1	
		Computer Science	80	122	186	244	201

Table 4 Enrollments MS Computer Science – Admit Type

Computer Science: Admit Type										
		Fall 2019		Fall 2020		Fall 2021		Fall 2022		Fall 2023	
		n	%	n	%	n	%	n	%	n	%
Undergraduate	First-time Frosh	319	46%	315	41%	306	41%	330	43%	359	45%
	Transfer	372	54%	446	59%	435	59%	433	57%	445	55%
	Total	691	100%	761	100%	741	100%	763	100%	804	100%
Graduate	First-time Graduate	155	99%	163	99%	220	100%	246	100%	202	100%
	Transfer	1	1%	1	1%	1	0%				
	Total	156	100%	164	100%	221	100%	246	100%	202	100%
Postbaccalaureate	First-time Graduate							2	100%	2	100%
	Total							2	100%	2	100%
Grand Total		847	100%	925	100%	962	100%	1,011	100%	1,008	100%

Table 5 MS Computer Science Students by Gender & Ethnicity Fall 2023

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Term: Spring Semester 2024, Fall Semester 2023

College: Science

Department: Computer Science

Major/Minor: Computer Science MS

Term	College	Department	Gender	Ethnicity	Master	Total	Minor
⊟Fall Semester 2023	⊟Science	⊟Computer Science	⊟Female	Asian	83	83	0
				White	1	1	0
				Total	84	84	0
			⊟Male	Asian	118	118	0
				European	1	1	0
				Hispanic/Latino	1	1	0
				White	2	2	0
				Total	122	122	0
			Total		206	206	0
		Total			206	206	0
	Total				206	206	0
⊟Spring Semester 2024	⊟Science	⊟Computer Science	⊟Female	Asian	58	58	0
				White	1	1	0
				Total	59	59	0
			⊟Male	Asian	102	102	0
				European	1	1	0
				White	1	1	0
				Total	104	104	0
			Total		163	163	0
		Total			163	163	0
	Total				163	163	0

(Source: Pioneer Data Warehouse) Page 1 of 1 Run Date: 9/11/2024

Table 6 Computer Science – Time to degree