Departmental BPC Plan
Department of Computer Science & Engineering
University of California, Santa Cruz

Effective Dates of Plan: 10/10/2024 - 10/10/2026
Contact: DEI Committee: L. Hu; A. Cardenas, D. Fremont, N. Montazeri, S. Nath

1. Context

The University of California, Santa Cruz (UCSC) is a public land-grant research university. UCSC is a federally-recognized Hispanic-Serving Institution (HSI), with 26% of the current student body identifying as Hispanic.

The Computer Science and Engineering (CSE) Department is part of the Baskin School of Engineering at UCSC. Currently, CSE programs enroll substantially smaller proportions of women, first-generation college students, and underrepresented minorities (here, students identifying as Black / African American, American Indian / Alaskan Native, or Hispanic / Latino) than UCSC as a whole. This is largely due to the different demographics of our applicant pools, as seen below: (Applied = applied in Fall 2023; Current = already enrolled in Fall 2023)

Undergrad	Women		First-Gen		URM	
	Applied	Current	App.	Cur.	App.	Cur.
UCSC	52%	49%	34%	33%	34%	33%
CSE	26%	22%	28%	28%	21%	17%
PhD	Women		URM			
	App.	Cur.	App.	Cur.		
UCSC	45%	44%	15%	18%		
CSE	27%	22%	6%	6%		

In addition, first-generation and URM undergrads stay in our majors at much lower rates than the average:

Major Retention	All	Women	First-Gen	URM
2 years	65%	63%	53%	46%
4 years	52%	50%	37%	30%

2. Goals

The CSE Department is committed to broadening participation in computing by increasing the diversity of students entering our programs and ensuring equitable outcomes for all students. Our specific goals in this Plan are:

G1: Gather and analyze retention and program outcome data related to URM and first-generation college students in CSE by Winter 2025.

G2: Increase retention rates of URM and first-generation students to match those of CSE students overall. Our target is to reduce the gap in rates by half by Fall 2026, and achieve parity by Fall 2030.

G3: Increase graduate applications from URM students to match the percentages of these groups of students in our undergraduate programs by Winter 2026.

G4: Obtain and discuss data annually about the climate for URM, women, and first-generation students in our programs, as well as their motivations and goals.

G5: Provide BPC training to all graduate students with TA assignments by Winter 2025.

3. Activities and Measurement

A1: Obtain and analyze the trends of the data related to URM and first-generation college students in CSE. (G1) We plan to work with the Institutional Research, Assessment, and Policy Studies (IRAPS) unit at UCSC to obtain detailed data about the trends of the enrollments, academic performance, and graduation rates of URM and first-generation college students in CSE. Measurement: Data will be collected and analyzed each year. *[Contact: Fremont]*

A2: Create a peer-mentoring program for URM students. (G2 and G3): We plan to create a peer-mentoring program for URM CSE students, based on the Mathematics, Engineering, and Science Achievement (MESA) program, to improve their retention rate. Measurement: Count student mentors and mentees, compared to total URM enrollment. *[Contact: Hu, Nath]*

A3: Create a departmental program to reach out to URM undergraduates in community colleges and Cal State universities. (G2 and G3) We plan to have a group of faculty members actively go to local community colleges to give talks about our programs and encourage URM students to transfer into them. In addition, they will go to Cal State universities to encourage URM students to apply to our graduate programs and mentor students from Cal State universities on research projects so they are more likely to apply to graduate programs. Measurement: Count the numbers of faculty outreach efforts, schools reached, and students transferring into / applying to our programs from those institutions. *[Contact: Hu, Nath]*

A4: Create a departmental BPC-focused REU Site. (G3) We plan to collaboratively build a BPC-focused REU Site. We will advertise this program to encourage URM and women undergraduate students to participate in research projects. Measurement: Count the number of faculty, projects and URM and women students involved in this program. *[Contact: Nath]*

A5: Utilize resources to encourage URM undergraduates to consider grad school. (G3) UCSC is the lead of the West Coast cohort of the Engineering PLUS Alliance, a part of the Computing Alliance of Hispanic-Serving Institutions (CAHSI) and the LEAP Alliance. We plan to familiarize CSE URM graduate students with the resources these provide and encourage them to consider an academic career. Measurement: number of events held / participants; % of our URM students applying to grad school (measured in A6). *[Contact: Cardenas]*

A6: Monitor URM, women, and 1st-gen students' experiences in CSE programs. (G4) We plan to survey our students about their experiences and goals through the CRA Data Buddies program. We will focus on URM, women, and first-generation students with an aim to determine what can be improved about CSE programs and refine our BPC plans. Measurement: Compare data by demographics; share findings at faculty meetings. *[Contact: Fremont]*

A7: Graduate student training on diversity, equity, and inclusion. (G5). With the UCSC Teaching & Learning Center, we plan to develop a unit on equity-minded teaching for CSE 200, a course taken by all TAs. Students will learn the basic pedagogical principles (active learning, growth mindset, etc.) and write statements about how they will apply them in their teaching. Measurement: # TAs trained; graded statements. *[Contact: Fremont]*

A8: Provide departmental funds for faculty and students to attend BPC-focused conferences such as Grace Hopper and Richard Tapia. (G2) Measurement: Count the number of faculty and students supported by this fund. [*Contact: Cardenas]*