Departmental BPC Plan University of Illinois at Urbana-Champaign Department of Computer Science

Effective dates of Plan: 10/11/2023 - 10/11/2025

Contact: Nancy Amato, NAmato@illinois.edu, Department Head

Tiffani Williams, Tiffani@illinois.edu, Associate Head for BPC



Context: The University of Illinois at Urbana-Champaign (UIUC) department of computer science (CS) is currently engaged in BPC strategic planning. This Departmental BPC Plan focuses on the ongoing activities in which faculty are engaged and is not a comprehensive list of our engagement with BPC. Our goals and activities will be updated following our strategic planning.

In the text below we use the phrase "students from groups underrepresented in CS" to refer to people who identify as women, African American, Black, Hispanic, Latina/o/e/x/*, and/or Native (i.e., people who identify as Native American, Native Alaskan, Native Hawaiian, Pacific Islander, and/or Indigenous).

G1: Undergraduate Enrollment Rates: Track and annually increase the number of students from groups underrepresented in CS. (Total: 2590; Women: 29.2%, Men: 70.8%, Black: 1.4%, Hispanic 4.0%, Native < 0.5%, Multiracial 2.9%, White 13.7%, Asian: 52.2%, International 23.7%)

A1a: Faculty support recruiting efforts for undergraduates from groups underrepresented in computing. These include BPC-focused events for admitted students, an NCWIT Aspirations in Computing awards recognition program, high-school visits to encourage students to apply for the NCWIT award, a Girls Who Code club, an annual event for high school girls ("ChicTech"), a BPC-focused high-school summer internship program, and BPC-focused K-12 school visits (Coleman).

A1b: Faculty participate in CS CARES, a group who aims to improve retention of students from groups underrepresented in computing by providing a supportive point of contact for people experiencing acts of bias (Erickson).

E1a: Track faculty involved and revisions made. UIUC provides the CS department with undergraduate applicant, acceptance, and admissions data disaggregated by gender and race.

E1b: The number of students from groups underrepresented in computing using these resources, and eventual outcomes of that help to the degree such can be collected without violating confidentiality.

G2: Graduate Recruiting: Each year, increase by at least 5% the percentage of women and people from racial/ethnic groups underrepresented in CS in our PhD program. Recent numbers and goals are:

	Fall 2021	Fall 2022	Fall 2023	Fall 2024 Goal
Women	98 (21.3%)	118 (23.9%)	137 (26.3%)	144 (27.6%)
Black, Hispanic, and/or Native	30 (6.5%)	29 (5.9%)	29 (5.6%)	31 (5.9%)

A2a: Faculty attend diversity-focused conferences such as Grace Hopper, NSBE, SACNAS, SHPE, and Tapia as a way to recruit prospective graduate students and connect with UIUC students attending the conference. Before the conference, faculty will invite all students who are attending the conference to meet each other and learn strategies for making the most of conference attendance (Hughes, Kudaligama).

A2b: Faculty speak at BPC-focused graduate student recruiting events run by UIUC (MERGE and ASPIRE) and meet with applicants regardless of area fit (Kudaligama, Hughes).

A2c: Faculty give talks at Minority Serving Institutions (MSI) and when giving a talk at an MSI or other institution request to meet with prospective students from groups underrepresented in computing (Lewis).

A2d: Faculty provide an additional review of applicants from groups underrepresented in CS and seek to connect applicants with appropriate advisors after completing implicit bias training (Abdelzaher).

A2e: Faculty provide research mentoring for students from groups underrepresented in CS who could apply to our CS PhD program (e.g., students in our MS, MCS, and iCAN programs; Williams).

- **E2:** Track faculty engagement in the annual survey. The graduate admissions committee will report to the department the representation among applicants to help evaluate the recruiting efforts (Abdelzaher).
- **G3:** Undergrad Research: Each year, increase the number of faculty who mentor students from groups underrepresented in CS in undergraduate research.
- A3: Using best practices for undergraduate mentoring, faculty mentor 2 REU students from groups underrepresented in CS through programs focused on BPC: (1) UIUC's CS STARS, (2) UIUC's Clare Boothe Luce Research Scholars, and (3) CRA's Distributed Research Experience for Undergraduates (DREU). We host a structured summer REU program with weekly speakers (Amato/Soloman).
- **E3:** The number of faculty who report mentoring undergraduate researchers from groups underrepresented in CS (Amato). Currently (Fall 2023), at least 34 faculty or 27%.
- **G4:** Inclusive Teaching and Mentoring: Each year, 10% of faculty will update their courses and/or mentoring practices based on inclusive teaching and mentoring training. This rate will help ensure our faculty stay abreast of the latest advances in inclusivity.
- **A4:** Faculty can learn about inclusive teaching through seminars provided externally or by UIUC's Center for Innovation in Teaching & Learning (CITL) or Academy for Excellence in Engineering Education, which provides a weekly program for new faculty and includes inclusive teaching training (E. Gunter).
- **E4:** Track faculty engagement in the annual survey (Amato). In the fall of 2022, 41 faculty indicated that 29% had learned about inclusive teaching or mentoring and 27% had used a new inclusive practice.
- **G5: BPC Learning**: Each year, 80% of faculty will report having spent time learning about BPC. **A5a**: Faculty can learn about BPC through internal or external programs. Opportunities include the CS department Equity and Justice talks or BPC book club, University events hosted by the Vice Chancellor for Diversity, Equity & Inclusion (DEI), and the IDEA institute (Amato/Williams).

A5b: Faculty can serve on a diversity committee at the department, college, or university level (Amato). **E5:** Track faculty engagement in the annual survey (Amato). In the fall of 2022, 26 of 41 (63%) faculty reported engaging in one or more activities related to learning about BPC.

G6: Faculty Recruiting: Each year, the representation of faculty applicants from groups underrepresented in CS will exceed their representation in the last 3 years of National IPEDS CS PhD graduation data.

A6a: Faculty participate in the Rising Stars as mentors as a way to recruit potential candidates (Amato).

A6b: Faculty lead BPC faculty recruiting efforts implementing college recommended practices (Amato).

A6c: Faculty invite students mid-PhD from groups underrepresented in CS to speak at UIUC (Amato).

E6: The office of the College shares this private data with the department.

G7: Facilitate conversations about inclusion: On an ongoing basis (at least quarterly), bring together individuals from groups underrepresented in CS to share their stories and distribute those stories to a broad audience.

A7a: Faculty engage in national and international events and programs, including but not limited to publishing blogs and podcasts, to highlight experiences of people from groups underrepresented in CS (Gupta).

A7b: Faculty organize, advertise, and help run a CS teaching workshop with an emphasis on inclusive teaching and effectively reaching students from groups underrepresented in computing (E. Gerner). **E7:** The number of individuals reached by these efforts (e.g. podcast downloads, workshop attendance).