Departmental BPC Plan
Computer and Information Sciences (CIS)
University of Delaware (UD)

Effective dates of plan: 03/14/2022- 03/14/2024
Contact: Lori Pollock, Professor in Computer Science at University of Delaware, (pollock@udel.edu) current head of Department's Community Enrichment, Retention, Awards, and Diversity (CERAD) Committee

1. Context. UD is a private-public land-grant research university located in Newark, DE, and is the largest university in the state (approximately 18,000 undergraduates and 4500 graduate students). CIS@UD resides in the College of Engineering. CIS offers BS and BA in CS, BS in Information Systems, MS and PhD degrees and several graduate certificates. BS in CS students choose from 7 concentrations or customize one to specialize their degree.

As of Fall 2021, CIS@UD demographics are: (where URG refers to Black and Hispanic students in CIS)
• 542 total undergraduates in CIS majors (24% women;16% URG)
• 108 graduate Ph.D. students (26% women; 6% URG); 29 MS students (45% women; URG not reported to protect privacy)
• 27 Tenured/Tenure-track faculty (26% women; 0% URG)
• 8 Teaching Faculty (38% women; 0% URG)

Within our program, retention rates for undergraduate women and students from URGs don't differ from the program as a whole. However, our program's retention rates are lower than those for the college, which in turn are lower than retention rates for the university. Furthermore, the Data Buddies survey revealed several issues with women's experiences in the program.

Goals
G1: Enact by fall 2022, a plan to increase collection frequency and participation rates in data gathered to assess BPC efforts and learn about issues affecting recruitment and retention of students, particularly those from populations that are underrepresented in computing.
G2: By spring 2023, increase retention of students to graduation by 5%, and continue to ensure that retention rates don't differ by demographics, particularly given women reporting differences in experiences
G3: From 2023 to 2025, annually increase by 5% the number of undergraduate women and students from URG who are recruited into the program.

Activities and Measurement
G1 Implement and sustain data collection
A1a: Assemble and report disaggregated departmental data such as:
- annual applications, admissions, and acceptances,
- changes of majors in (from where) and out (to where),
- major, minor and course enrollments and graduations,
- DWF rates per course

A1b: Annually conduct entry survey in introductory courses for feedback on department recruiting efforts, using NCWIT entry survey provided by emailing info@ncwit.org
A1c: Collect data on students' experience of the program with tools such as:
- Key culture questions on course evaluations
- CRA CERP Data Buddies Survey

- NCWIT Student Experience of the Major Survey (SEM Survey) www.ncwit.org/resources/survey-box-student-experience
- Annual exit survey for change of majors and graduating seniors, MS, and PhD students
- Annual alumni survey

Evaluation: Faculty in CERAD maintain a checklist of which data is gathered each year; track completeness of annual CERAD report, track survey response rates

G2 Increase retention of students to graduation
A2a: Faculty establish semi-annual TA training, monitoring and feedback on inclusion
A2b: Faculty participate in workshop on ways to increase collaborative in-class learning
A2c: Faculty conduct inclusion audit of lectures, activities, examples, project choices, team management of at least one course, using NCWIT materials
A2d: Faculty participate in short activities on inclusive teaching practices at faculty meetings
A2e: Faculty guide students to create posters for shared student spaces on inclusion and community
A2f: Faculty serve as advisor/advocate for student-led groups (CPUs, ACM-W, and CISTERS) to increase their impacts (# events, #student members, #students at events, #faculty members, #faculty at events) on recruitment and retention activities, including newsletter, recruitment events, hackathons for K-12, scaffolding for students without CS background, service-related student activities
A2g: Faculty recruit women and students from URG and mentor students to get the most out of attending Grace Hopper, Tapia and technical research conferences
A2h: Faculty improve advising information for advisors and students
A2i: Faculty participate in CERAD committee leadership in identifying programmatic cultural barriers that affect our target groups and increasing explicit buy-in from faculty for this mission as a department
Evaluation: Analyze data gathered in G1 from current students and compare over time as interventions made. Track faculty involvement. Track data from TA evaluations over time. Track number and demographics of students participating in or reached by initiatives.

G3 Increase newly enrolled women and students from URG
A3a: Faculty distribute NCWIT entry survey in intro courses for feedback on recruiting from students
A3b: Faculty conduct annual audit of website for messaging to potential students and parents: https://www.ncwit.org/resources/ncwit-tips-11-ways-design-more-inclusive-academic-websites
A3c: Faculty create checklist to educate advisors/admissions on reaching these target populations
A3d: Faculty educate college counselors on BPC by distributing a 1-pager, and holding a 1-hour online session using resources from NCWIT
A3e: Faculty organize current students to contact potential students to increase diversity
A3f: Faculty continue to leverage opportunities with K-12 teachers through Partner4CS and CS4DE
Evaluation: Track diversity of incoming students using data in G1. Track faculty, staff, and current student engagement in the above recruitment activities and where possible, track the number and demographics of students reached by recruiting activities

Note: The CERAD Committee is the point committee for faculty who want to get involved in each of these activities for G1, G2, and G3. The committee changes annually, so we believe it is best not to designate individual faculty for each activity.