Departmental BP Plan
Department of Computer Science
College of Charleston

Effective dates of Plan: 04/12/24 - 04/12/26

Contact: Renée McCauley, Department Chair - mccauleyr@cofc.edu

1. Context

The College of Charleston is a public liberal arts institution in Charleston, South Carolina with an enrollment of 10550: 9550 undergraduate and 1000 graduate students. The Department of Computer Science is housed in the School of Sciences, Mathematics, and Engineering. The Department supports five undergraduate major programs: Computer Science (BS/BA), Computing in the Arts (BA), Computer Information Systems (BS), Data Science (BS), and Software Engineering (BS). The Department has two M.S. programs: Computer & Information Sciences and Data Science & Analytics. The Department boasts a gender- and racial-balanced roster faculty of 16 with 46.2% women and 53.8% people of color. The student body of the College of Charleston is predominantly white (79.0%) and female (67.4%). The Department graduation rates show that most graduates are white (72.3%) and there is a **disproportionately small number of women graduates (30.9%)** compared to university enrollment figures (where 67.4% of students are women). While the Department's population of women students is not in parity with the college-wide enrollment, the percentage of women students within the Department is higher than the Integrated Postsecondary Education Data System (IPEDS) national average (21.7%). In this first phase of our departmental plan, we will (1) collect data to learn whether or not there are disparities in student persistence among students from underrepresented racial and ethnic minorities, with particular attention to women of all races/ethnicities, and (2) encourage faculty to take part in the creation of more inclusive instructional environments.

2. Goals (G), Activities (A), and Measurement (M)

G1: Climate - By fall 2024, the department will have conducted its first climate survey using the Data Buddies Survey for students developed by the Computing Research Association (CRA).
A1a: Conduct survey. Set aside time for students to complete a survey in several courses required across multiple majors and across several points of the curriculum that is guaranteed to cover students in all our majors. Internally, those courses are: CITA 140, CITA 180, CSCI 220, CSCI 221, CSCI 310, CSCI 315, CSCI 362, CITA 395, and Capstone (CITA 495, DATA 495, CSCI 462). [Contact Person: Chair]
A1b: Faculty from the department will discuss and collate recommendations for instructors and report the discussion during a meeting.
M1a: One hundred students will respond to this survey.
M1b: A report including disaggregation by demographics will be produced and disseminated to the department faculty by December 2024.

G2: Enrollments & Graduation Statistics - In Fall 2024, the department will analyze enrollment data from the previous 5 years to identify if there are gaps in persistence related to gender, which will include (1) rates for CSCI 220 earning a D, F, or withdrawing from the course, (2) rates for CSCI 221 earning a D, F, or withdrawing from the course, (3) attrition rates after CSCI 221, and (4) graduation rates. This baseline data will be used to inform decisions going forward.

A2a: Obtain data from Institutional Research on (1) DFW rates in CSCI 220 and CSCI 221, and for every student who completed CSCI 221, the percentage who enrolled in one of three courses [CSCI 462, CITA 495, or DATA 495] within three years of CSCI 221 completion and (2) degree completion data. [Contact Person: Chair]

A2b: In one department meeting, data will be shared and discussed from the previous 5 years to identify possible persistence gaps in the program by gender. Data will include analyzing (1) rates for CSCI 220 earning a D, F, or withdrawing from the course, (2) attrition rates after CSCI 220, (3) attrition rates after CSCI 221, and (4) graduation rates. Departmental meeting minutes will document the discussion.
[Contact Person: Chair]

M2a: Notes will be collected from faculty analysis of data and will include percentage improvement that faculty want to achieve to set subsequent goal.

M2b: Compare department graduation rates to national trends, obtained through IPEDS national degree completion data.

G3: Training - By January 2025, 85% of our roster faculty will have completed the Diversity.edu course or other course/workshop (such as NCWIT 101) on creating a welcoming classroom environment.

A3a: Faculty will engage in self-paced individual training on diversity and evidence-based practice-centered approaches to closing equity gaps.

A3b: One faculty meeting per term will include a 10-minute faculty-led discussion of a topic related to broadening participation and practice-centered action to create welcoming classroom environments. [Contact Person: Chair]

M3a: Faculty will self-report to the chair completion of the program(s) and include as part of scholarship/professional development in annual merit evaluation narrative. The chair will maintain a report.

M3b: Meeting minutes will summarize the faculty discussion.

G4: Active Learning – By Spring term 2025, active learning will be used in at least 75% of courses.

A4a: Active learning practices will be discussed at Faculty meetings or retreats.; these may include peer instruction, pair-programming, in-class exercises, etc. [Contact Person: Chair]

M4a: Faculty will self-report the use of active learning as part of their teaching-oriented discussion in their annual merit evaluation narrative. The chair will maintain a report.