Departmental BPC Plan
Department of Computing Sciences
Villanova University

Effective dates of Plan: 09/19/2023 - 09/19/2025
Contact: Kathleen Malone, Chair CS DEI Committee,
kathleen.f.malone@villanova.edu

Context

Villanova is a private, Roman Catholic, research university located in Villanova, PA, a suburb of Philadelphia with an enrollment of 6,700 full-time undergraduate students and 3,100 law and graduate students. Villanova University was founded in 1842 and is inspired by the values of truth, unity and love, creating a uniquely Villanova environment, in which students learn to think critically, act compassionately and succeed while serving others.

The Department of Computing Sciences resides in the College of Liberal Arts and Sciences and has 180 undergraduate students, 83 graduate students, and 15 full-time faculty members. 33% of our undergraduate students identify as women, 14% identify as Hispanic and 7% identify as Black/African American. Of the 15 full-time faculty members, 33% identify as female. Our department exceeds the national percentage of women and Hispanic students obtaining computer science degrees and meets the percentage of Black/African American students. We exceed the percentage of Hispanic students represented overall at the University and meet the percentage of Black/African American students enrolled. We do not currently track student retainment data or outcomes by race or gender, but we will begin tracking this data so we can identify and address any differences.

Goals Activities and Measurement

G1: Data Gathering and Reporting: By the Fall of 2023 have a system in place to track retainment, attitude, and experiences of students from underrepresented groups[1] within the department.

A1a: **Maintain statistics on the retainment of targeted groups:** A CS faculty member will prepare a dataset of students by gender and race, who began their CS major in the previous fall and returned to the major the following fall. For students who do not return to the major, we will survey them for reasons why. Contact: Kathleen Malone, DEI Committee

A1b: **Data Buddies:** The CS department will participate in the Data Buddies Project starting in the Fall of 2023 to gauge attitudes and experiences of students by gender and race. CS faculty will oversee the administration of the survey and present the results at the annual faculty retreat. Contact: Kathleen Malone, DEI Committee

Measurement: Data is prepared and ready for presentation at the next department retreat held in May of 2024.

[1] For the purposes of this plan, underrepresented groups include individuals who identify as Women, Black or African American, Hispanic, LBGTQ, Disabled.

G2: Student retention: By 2024, data gathered from our G1 activities will be used to measure the impact of our current retention activities and be used to set specific goals for additional retention and student experiences.

A2a: Participation in diversity-themed conferences: The CS department sponsors students to attend the annual Grace Hopper conference and the Tapia conference. CS faculty will recruit students to attend, promote scholarships, and complimentary registration opportunities for eligible students early in the conference cycle, and work with the Career Center to prepare and mentor students so they get the most out of the conference. Contact: Kristin Obermyer

A2b: **Participation in the Villanova Women in Tech conference:** CS faculty will serve on the organizing committee and encourage students to attend and volunteer at the annual Villanova Women in Tech (VUWIT) conference. Contact: Kristin Obermyer

A2c: **Participation in Cookies, Cupcakes and Coding events:** CS faculty will serve on the VUWIT organizing committee and lead these CS-themed workshops targeted at women students throughout the entire University. Contact: Kristin Obermyer

A2d: **Sponsor and support student groups:** CS faculty will advise the student led Villanova chapter of Girls Who Code and encourage participation in the National Society of Black Engineers. CS faculty will attend the first-year student orientation in the Fall semester to make students aware of the clubs. Contact: Kristin Obermyer

Measurement: Track the number of students and faculty who participate in conferences and clubs. Use retention data to check for demographic differences in performance and graduations, and Data Buddies data to track perception of the program.

G3: Outreach to the community: Annually, 20% of CS faculty will participate in activities to encourage participation in computer science at Villanova and other institutions.

A3a: **Research Collaborations:** CS faculty will establish research collaborations with and recruit graduate students from urban, HBCU, and MSI institutions (e.g., Cheyney and Lincoln U.), with the goal of creating long lasting connections and a pipeline into our graduate program for students from underrepresented groups. Contact: Ebelechukwu Nwafor

A3b: **NCWIT Participation:** CS faculty will host and or volunteer at the annual Aspirations in Computing awards ceremony, which honors 9^{th}-12^{th} grade students who identify as female, gender queer, or non-binary. Contact: Kathleen Malone

Measurement: We will track the research collaborations and students enrolled in our programs from HBCUs and MSIs. Track the participation of the department in the Aspirations award ceremony.

G4: Faculty Diversity: Annually, advertise in and actively recruit from at least five venues that reach candidates from underrepresented groups. Implement a plan to receive a more diverse applicant pool for faculty recruiting.

A4a: **Faculty Recruitment:** CS faculty will publicize job openings in the African American PhD in Computer Science (AAPHDCS), Hispanics in Computing, and National Center for Women & Information Technology (NCWIT) forums. The department will recruit at venues such as the National Society of Black Engineers (NSBE), ACM Tapia Conference, and Grace Hopper Celebration of Women in Computing. Contact: Mirela Damian

Measurement: Track recruiting efforts and the demographics of who we interview.