**Departmental BPC Plan
Department of Electrical and Computer Engineering
Iowa State University**

Effective dates of Plan: 12/06/2023 - 12/06/2025

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1. Context

The Department of Electrical and Computer Engineering (ECE) at Iowa State University offers four undergraduate Engineering majors: Computer, Cyber Security, Electrical, and Software as well as master's and Ph.D.'s in computer engineering and electrical engineering, and four interdepartmental graduate programs. The ECE department has disproportionately low representation from historically underrepresented groups (HUGs), as the demographics below show. Historically underrepresented include individuals who identify as women and/or racial/ethnic groups: Black/African American, Hispanic, American Indian, Alaska Native, Native Hawaiian, Pacific Islander. To improve diversity, the department recently completed NSF RED and S-STEM grants that included DEI-related objectives and research studies.

ECE Department, Fall 2023	Faculty	UG Students	Graduate Students
Total Number	63	1,789	304
% Women	15.9%	13.9%	21.4%
% Underrep. Racial/Ethnic Groups	3.2%	15.3%	4.3%

2. Goals, Activities, and Measurement

G1: Department BP data management and sharing: Each year, data will be shared at two faculty meetings and used as input for decision making and improvement. Over a three-year period, representation percentages for HUGs will increase by 5%. Two-year retention percentages for undergraduate students from racial/ethnic groups will increase by 5%.
A1a: Track progress on key actions for BP in the department's strategic plan. (DI Director)
A1b: Collect, share enrollment/retention data disaggregated by demographics. (SS Manager)
A1c: Administer assessments, such as the CRA Data Buddies Survey. (Chair, DI Director)
M1: Track data managed and shared by the department.

G2: Department-level BP activities: Evidence of department practices and efforts to support BP is documented and benchmarked against recent department initiatives and studies (e.g., NSF awards 1623125 and 1565130).
A2a: Use equity-oriented practices for faculty, such as from ISU ADVANCE. (Chair)
A2b: Host seminars on BP topics and invite speakers from HUGs for the Distinguished Lecture Series. (Seminar Chair)
A2c: Create inclusive department communications (news, social media, web, etc.). (Chair)
A2d: Implement practices aligned with DEI concepts in ABET criteria. (ABET Chair)
M2: Track BP in faculty development practices, seminars, communications, and accreditation.

G3: Faculty professional development and service related to BP: Each year, at least 75% of faculty will engage in and report BP activities as part of professional development or service.
A3a: Participate in workshops, such as annual Inclusive Classroom Training. (Chair)
A3b: Participate in workshops and sessions offered at conferences or webinars by professional organizations such as ASEE, WEPAN, and NCWIT. (Chair)
A3c: Perform service supporting department-level BP, such as committee assignments. (Chair)
M3: Track faculty participation in BP-related training, service, and reporting activities.

G4: Faculty BP activities in research and education: Each year, at least 60% of faculty will engage in and report BP activities integrated with research, teaching and/or mentoring.
A4a: Plan and implement BP activities included in NSF research proposals. (Chair)
A4b: Redesign courses based on inclusive teaching methods. (UG Education Director)
A4c: Enhance mentoring through mentorship education resources (e.g., CIMER). (DI Director)
A4d: Give technical and professional presentations to student organizations/programs that have BP missions, such as Digital Women, ECSEL, ECPE-GrOW, LEAD, and WISE. (DI Director)
A4e: Give presentations at universities and conferences to develop relationships and recruit students from HUGs into graduate programs. (Graduate Education Director)
A4f: Generate new knowledge about BP through engineering education research. (Chair)
M4: Track faculty activities through annual review reporting.

G5: Undergraduate research and internships: Increase the number of students from HUGs participating in undergraduate research by 20% over three years.
A5a: Recruit and mentor students from HUGs to participate in research, partnering with NSF REUs, IINSPIRE LSAMP, McNair, STEM Scholars at ISU. (DI Director)
A5b: Collect data about student outcomes, e.g., EvaluateUR survey. (DI Director)
M5: Track faculty as research mentors and student participation in research and internships.

G6: Student communities and professional development: Each year, expand or improve at least two support structures or opportunities that data have proven effective.
A6a: Support affinity groups and student organizations that have BP goals. (DI Director)
A6b: Support student participation in conferences, including BP-oriented conferences, such as GHC, SWE, WiCyS, SHPE, SACNAS, and NSBE. (DI Director)
A6c: Support funding and student applications for scholarships and fellowships. (Directors)
M6: Track number and types of support made available and demographics of participants.

G7: Precollege and community college outreach: Each year, at least 10% of faculty will be involved in BP-related outreach involving students from HUGs.
A7a: Support precollege informal learning opportunities that are inclusive of students from underrepresented groups (e.g., CyIO, WISE, CyMath, FLL, Science Bound). (DI Director)
A7b: Partner with community colleges to support transfer students. (SS Manager)
M7: Track faculty participation in outreach activities and demographics of students reached.