

**Departmental BPC Plan
Electrical & Computer Engineering
University of Michigan**



Effective dates of Plan: 08/03/2023 - 08/03/2025

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1. Context

Electrical and Computer Engineering (ECE) at the University of Michigan (U-M), Ann Arbor aims to promote and foster equity, diversity, and inclusion for all people in our teaching, research, and service to the community. ECE produces an annual diversity report that details diversity, equity and inclusion (DEI) efforts across the department, and supports a Committee for an Inclusive Department (CID) to understand and address DEI issues. Enrollment numbers for our female and racial and ethnic populations that are underrepresented in computing as of Fall 2021 are as follows:

	UG Female	UG Black, Hispanic, Hawaiian, and Native American	Grad Female	Grad Black, Hispanic, Hawaiian, and Native American
ECE	18%	13%	20%	2.5%
College of Engineering	31%	14%	26%	14%
U-M	52%	16%	51%	5.4%

Incoming students are not required to identify as a particular group, so these are approximate numbers. However, these numbers suggest that ECE is consistently less diverse than either the College of Engineering or U-M, indicating that our program has significant room for improvement. Additionally, U-M's proximity to Detroit offers a unique opportunity to engage with the city's K12 public school students, which are 81% Black or African American, and 13.9% Hispanic/Latino.

Below we provide specific goals, activities, and measurements to address our goals.

2. Goals, Activities, and Measurement

G1: By 2027 reach a cumulative total of 5000 K-12 students through outreach programs that are designed to broaden participation in computing

A1a: Participate in ECE's Joy of Coding (JoC) for high schoolers, an online program designed to make coding accessible and engaging for students who lack access to or prior experience with coding.

(Contact: Raj Nadakuditi)

A1b: Participate in ECE's Electrify Summer Camp programs, which offer high school students in the region, including Detroit, the opportunity to learn about ECE through hands-on projects that illustrate ECE's global impact and relevance to student's everyday lives, in a collaborative, inclusive environment.

(Contact: John Feldkamp)

A1c: Advise and assist student groups in conducting engaging, inclusive K-12 outreach at schools and community events (Contact: Ann Stals)

M1: ECE will track the number and demographics of students reached in these activities, as well as their self-reported satisfaction with A1a-A1c.

G2: Each year, increase the number of undergraduate students from populations underrepresented in computing who participate in faculty-directed research.

A2a: Engage with undergraduate students from underrepresented groups through the Summer Undergraduate Research in Engineering program and the Undergraduate Research Opportunity Program, in research groups, and through directed study courses. (Contact: Catie Lenaway)

A2b: Supervise NSF Research Experiences for Undergraduates (REU) Site to sustain the participation of undergraduate populations underrepresented in computing. (Contact: Catie Lenaway)

M2: The number and demographics of students participating in A2a and A2b.

G3: Annually increase participation in activities that promote awareness of graduate programs among existing and prospective students from populations underrepresented in computing.

A3a: Participate in the ECE Reboot workshop: Explore Graduate Studies in ECE, an annual, one-day workshop which focuses on outreach to first-generation students and those with economic hardship, with a goal of reaching individuals from populations underrepresented in computing. (Contact: John Feldkamp)

A3b: Promote graduate programs at student conferences held for Black, Hispanic, and female students, and correspond with 100+ pathway schools and Minority Serving Institutions to solicit participation in our graduate workshops and information sessions. (Contact: John Feldkamp)

A3c: Accompany students to diversity-focused annual conferences (such as the Grace Hopper Conference). (Contact: John Feldkamp)

M3: (1) number and demographics of student participants in A3a and A3c; (2) number of faculty participants in A3b and A3c; (3) number and demographics of graduate applicants, number of applicants from HBCUs and MSIs.

G4: By 2025 50% of ECE faculty will have participated in at least one of the activities listed in A4a and A4b below, aimed at enhancing inclusive teaching practices.

A4a: Participate in one or more activities sponsored by the Center for Research on Learning and Teaching (CRLT) on inclusive learning. (Contact: Lisa Armstrong)

A4b: Engage with CRLT to conduct mid-semester or end-of-semester evaluations, focusing on the climate perceived by student populations underrepresented in computing. (Contact: Lisa Armstrong)

M4: (1) teaching evaluations; (2) periodic program review and climate surveys; (3) number of faculty participants in A4a and A4b.

G5: By 2025 75% of ECE faculty will have participated in at least one of the activities listed below (and other similar events) aimed at enhancing BPC awareness.

A5a: Serve on the ECE Committee for an Inclusive Department. (Contact: Lisa Armstrong)

A5b: Participate in our annual Juneteenth celebration event and/or attend the College of Engineering monthly DEI lectures. (Contact: Lisa Armstrong)

A5c: Attend UM STRIDE workshop for inclusive hiring training. (Contact: Lisa Armstrong)

A5d: Serve as evaluators and mentors for NextProf and Rising Stars in EECS. (Contact: Lisa Armstrong)

M5: number of faculty participants in these and other, similar activities.