

School of Engineering JEDI Plan

A SWOT analysis was conducted in 2022 through the university's Inclusive Excellence (IE) Division. Information from the SWOT analysis was mapped onto the five dimensions of the Inclusive Excellence framework through the IE office. These areas are Access and Success, Climate & Intergroup Relations, Education & Scholarship, Infrastructure & Investments, and Community & Partnerships. From this analysis, goals and key efforts were identified.

SUMMARY OF SWOT ANALYSIS FOR THE SCHOOL OF ENGINEERING

Strengths

Access & Success

- Outreach programs to increase access
- Working to diversify faculty

Climate & Intergroup Relations

- Working on building community
- Staff and faculty dedicated to an inclusive environment

Infrastructure & Investments

- Funding, resource, and facilities commitment to DEI (e.g., scholarships, training)
- Hiring a program director for DEI initiatives

Weaknesses

Access & Success

- Lack of representation among student and faculty

Infrastructure & Investments

- Not prioritizing DEI in financial and human resource allocation
- Efforts underdeveloped in how to execute
- Lack metrics

Opportunities

Access & Success

- Industry support for minority engineering efforts
- Expanding mentoring program for underrepresented and first-generation students

Climate & Intergroup Relations

- Supporting non-binary individuals

Infrastructure & Investments

- Allow more student, faculty, and staff input
- Additional School outreach initiative

Community & Partnerships

- Build stronger relationships with the community

Threats

Access & Success

- Difficulty in recruiting diverse students

Climate & Intergroup Relations

- Rebuilding community after Zoom

Infrastructure & Investments

- Momentum to achieve change is still student driven
- Actions more driven by optics

INSIGHTS

The School of Engineering has made important investments in DEI infrastructure by creating an EDI committee, hiring a programming director, and designating physical space to DEI. There is strong staff and some faculty support for DEI, and a mentoring program for all students, but that particularly benefits BIPOC and first-generation students.

The School’s initial Inclusive Excellence plan builds on the infrastructure investments and empowering the program director to do the work that needs to be done. While not mentioned in the SWOT, the responses indicate a need to engage faculty in DEI professional development related to asset-based approaches to student support and mentoring, as well as inclusive teaching.

GOAL STATEMENTS AND KEY EFFORTS

The goal statements below are phased in the SMART format: Specific, Measurable, Achievable, Relevant, and Timebound. Key efforts reflect the actions the School intends to take to achieve these goals. The key role responsible for championing the project as well as the roles responsible for managing the projects associated with achieving the goal are also identified below.

Each listed key effort also has one or two outcomes indicating whether the effort is being implemented and producing the desired changes.

Access & Success

| Strategic goal | Key effort(s) | Success Indicators | Metrics | Accountabilities |
|--|--|--|--|---|
| Improve experience for BIPOC students, by 2024. | Develop opportunities to support and highlight SCU Engineering student organizations. Strengthen mentoring program for BIPOC women students, black students, Hispanic students and other under-represented minority (URM) groups. | <i>Outcome:</i> Increased BIPOC graduation rates <i>Outcome:</i> Improved sense of belonging and connection among BIPOC and other students <i>Process:</i> Student reports of mentoring efficacy | Disaggregated retention and graduation rates. Survey response | Dean |
| Improve experience of international and URM Engineering Graduate students. | Develop impactful activities for the graduate students within the Association of Graduate Engineering Students (AGES) | <i>Outcome:</i> Improved sense of belonging and connection among Graduate and Undergraduate students | Disaggregated retention and graduation rates for graduate students. Survey response | Dean, Associate Dean for Mission, Culture & Inclusion; Associate Dean for Graduate Programs; Assistant Dean for Graduate Enrollment & Student Affairs |

Climate & Intergroup Relations

| Strategic goal | Key effort(s) | Success Indicators | Metrics | Accountabilities |
|---|---|--|--|---|
| Engage Engineering faculty in DEI professional development | Organize quarterly lunch talks by Engineering Faculty on DEI professional development topics. This is similar to the "What matters to me and why" talks by Ignatian Forum. Need funding for these talks and quarterly lunches | <i>Engineering Faculty become better informed on DEI issues.</i> | Attendance at the quarterly talks are high with real impact | Dean, Associate Dean for Mission, Culture & Inclusion |
| Cultivate strategic relationships between Engineering DEI team at SCU and at local Community colleges to foster interest in SCU STEM degree programs | A proposal to NSF for combined summer programs aimed at Community College students interested in transfers to SCU STEM programs. | <i>Increased number of STEM transfer students to SCU from local community colleges</i> | # transfers and # successful completions of SCU degree programs in STEM | Associate Dean for Mission, Culture & Inclusion |
| Cultivate strategic relationships between Engineering DEI team at SCU and at other universities especially HBCUs to foster interest in SCU Engineering MS and PhD degree programs and Silicon Valley collaborations | A proposal to HBCUs and Silicon Valley Foundations working with SCU Development Office for DEI Engineering student exchanges and joint research and other collaborations. | Increase in the number of Under-represented minorities (URM) in Engineering undergraduate and graduate degree programs. Internships at Silicon Valley companies for URM in Engineering | Increased # exchange students; Securing funding from local Silicon Valley Foundations for URM in Engineering | Associate Dean for Mission, Culture & Inclusion |

Education & Scholarship

| Strategic goal | Key effort(s) | Success Indicators | Metrics | Accountabilities |
|--|---|---|---|---|
| Build and sustain a pipeline from middle school through high school and to SCU for URM in STEM to get admitted, enroll and graduate from SCU with STEM degrees | 1. Develop, expand and find resources to sustain the ongoing workshops for middle school students by SCU NSBE-E4T. See (Engineers4Tomorrow.org) 2. Develop, expand and sustain ongoing SES and SEEDs SCU Engineering programs for high school students | Outcome: Increased number of Engineering and STEM graduates from the SCU or other universities. | Programs for Middle and High School students. Survey of attendees of all related events | Dean, Associate Dean for Mission, Culture & Inclusion |
| Develop and sustain funding the Scholarships for students for Undergraduate URM in Engineering and STEM | Solicit philanthropists and set up an excellence fund for URM Engineering STEM students much like the Black Excellence Fund. | Receipt of funding | Funding acquisition | Dean, Associate Dean for Mission, Culture & Inclusion |
| Modernize content and instructional strategies in all courses | Offer professional development to support faculty in developing inclusive teaching and diverse content into their courses and curricula | Outcome: Percentage of courses updated and redesigned | Courses redesigned/developed | Dean Curriculum committee |

Infrastructure & Investments

| Strategic goal | Key effort(s) | Success Indicators | Metrics | Accountabilities |
|--|---|-------------------------------|---------------------------------|---|
| The Diversity and Inclusion Student Center (DISC) space in SCDI Building Room 2300 is a useful space for Engineering students to connect, study, relax, hang out and organize meetings. We need some funding to expand activities there. | Develop proposals to local foundations to fund this initiative. | Receipt of funding requested. | Funding for the strategic goal. | Dean, Programs Director for Diversity, Equity and Inclusion in STEM and Associate Dean for Mission, Culture & Inclusion |

Community & Partnerships

| Strategic goal | Key effort(s) | Success Indicators | Metrics | Accountabilities |
|--|--|--|--|---|
| Develop strategic partnerships with other DEI divisions or depts within nearby local universities e.g. UC Davis, UC Berkeley, SJSU, UC Santa Cruz, etc. so we can leverage our joint activities to enhance URM representation in STEM programs at SCU. | Develop joint activities between SCU Engineering DEI division and nearby universities. | Exchange of DEI success ideas between SCU and nearby universities. | Successful joint activities | Dean, Programs Director for Diversity, Equity and Inclusion in STEM and Associate Dean for Mission, Culture & Inclusion |
| We have a vibrant SCU chapter of the National Society of Black Engineers (NSBE). However, the chapter lacks adequate funding for some of the activities like the joint E4T-SCU NSBE workshop. Need to develop a regular funding source for this and other NSBE needs each academic year. | Solicit sustained external funding for SCU NSBE | Vibrant and well-funded SCU NSBE-E4Tworkshops | Impact on SCU NSBE members and on SCU-E4T middle school students attending the workshops | Associate Dean for Mission, Culture & Inclusion |