

2022/23 COLLEGE OF ENGINEERING EQUITY, DIVERSITY, AND INCLUSION PLAN

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PLAN OVERVIEW

The Community Goal in the 2020-2025 College of Engineering (COE) Strategic Plan at Oregon State University is to “Cultivate a community that embodies collaborative and inclusive excellence.” The first objective of this goal is to “Purposefully recruit and advance employees and students to create a culture that embraces diversity, equity, inclusion, and belonging.” During the past four years, COE has made significant progress in improving the representation of women in our tenure track and tenured faculty ranks, among other strides in creating a socially just community. However, we realize that increasing the representation of other underrepresented groups in engineering throughout our employee and student constituent groups is a much more durable problem, particularly given the historical legacy of the founding of the state of Oregon.

In developing this Equity, Diversity, and Inclusion Plan (EDI Plan), we have worked to devise an integrated set of strategies that, collectively, builds to reach our community members where they are: respectful of everyone’s lived experiences and unique path forward as we pursue our shared goal of inclusive excellence. We recognize that we will all move forward in our own way and pace, and we all have the right to define our path. To this end, COE has developed a variety of options and opportunities for engagement, professional development, leadership, and learning. COE also appreciates that each community member requires different levels and types of support during our journey. We have endeavored to identify and anticipate what will be needed, including wellness, financial, educational, and professional.

COE has an opportunity to make continued progress toward our Community Goal by implementing this revised and evolved EDI Plan, with elements that address outreach, including student recruitment and engagement; our undergraduate and graduate student populations; tenured/tenure-track faculty; and postdoctoral scholars, instructors, and professional faculty and staff. In this plan, we discuss several ongoing and proposed efforts to increase COE’s diversity and continue to evolve our community to be more diverse and inclusive.

Additionally, the COE EDI Plan includes delineated constituencies related to COE. Within each section is a collection of tactics we are undertaking to foster diversity and inclusivity as a part of our community. We emphasize, however, that in many cases, our efforts are not easily categorized because of their far-reaching impacts; for example, providing professional development opportunities related to inclusive classroom practices is beneficial to both the faculty who participate in the training and also to the students who are impacted by what the faculty learn and implement in their courses. We have, thus, organized our efforts into sections for convenience and organization rather than to draw lines of demarcation between populations.

K-12/COMMUNITY COLLEGE PIPELINE

A critical component of growing diversity within COE is engaging with K-12 and community college students, particularly those from populations historically underrepresented within engineering. Through analysis of admissions data, we have found that: (1) women students are admitted to COE at higher rates than men, but matriculate at lower rates; (2) Hispanic/Latinx students are admitted to COE at lower rates than White students and also matriculate at lower rates than White students; and (3) Black students are admitted to COE at lower rates than White students and also matriculate at lower rates. Given these findings, we have worked more closely with our Marketing and Communications team to design communication strategies that target these groups and have invested in more intentional outreach to these populations while they are still in high school. Through these outreach and engagement efforts, we can show students that we view them as valued community members. Thematically, we emphasize our values and messaging that anyone can study engineering, and OSU is a welcoming and nurturing environment in which to do so.

TACTIC 1: INCREASE VISIBILITY OF COE K-12 OUTREACH PROGRAMS

STATUS: In progress; strategy developed, implementation is underway

METRICS: Website development, K-12 outreach participants applying to COE undergraduate programs

The University (and by extension, COE) has adopted and is implementing a new customer relationship management (CRM) software to facilitate communication across all stakeholder groups, including potential (specifically, K-14) students. In addition to enhancing and optimizing the publication of COE outreach and engagement events, implementing this new CRM system will facilitate tracking participants to assess the impact and effectiveness of specific programs. It will be possible to track attendees to determine, e.g., which programs result in the most students continuing to engage with COE, up to and including enrollment at OSU as undergraduate engineering students.

TACTIC 2: EXPANSION OF BEAVER HANGOUTS PROGRAM

STATUS: Lesson plans developed; deployment ongoing

METRICS: Underserved middle school classrooms engaged, students from these schools entering COE

The COE has partnered with our Society of Women Engineers (SWE) chapter and the Beaver Hangouts program on campus to create a new engineering curriculum being delivered to the middle schools participating in the program. Initially, the Beaver Hangouts curriculum focused on college readiness delivered to underserved schools in Oregon, but it did not include any discipline-specific lessons. SWE developed seven different lesson plans on engineering topics and began offering them through Beaver Hangouts in winter 2020. The Beaver Hangouts program was paused in late 2020-early 2021 due to the pandemic but is coming back in AY2022-23. These lessons have also been offered to students participating in the Washington County STEM Academy events. We estimate that these efforts have already impacted 100 students.

TACTIC 3: SUMMER EXPERIENCE IN SCIENCE AND ENGINEERING FOR YOUTH (SESEY)

STATUS: Ongoing at the school level, College-wide adoption is currently paused, see the narrative below

METRICS: SESEY students enrolling as undergraduates in OSU COE

Since 1997, the School of Chemical, Biological, and Environmental Engineering (CBEE) has hosted the Summer Experience in Science and Engineering for Youth (SESEY). SESEY was created to encourage high school students from traditionally under-represented groups to explore the world of engineering and to consider careers in its various fields. Of the 950 students participating in this program over the last 22 years, approximately one-third have enrolled at OSU. The COE Center for Diversity and Inclusion (CDI) intends to collaborate with the SESEY staff to develop clearer recruitment strategies in the future. This will include ongoing communication with students after they have completed the SESEY program to encourage them to pursue a STEM degree at OSU. The program remains supported by COE and active in CBEE, but College-wide adoption is on pause pending the outcomes of *Tactic 1* above.

TACTIC 4: EXPAND WINTER HIGH SCHOOL VISIT PROGRAM

STATUS: Hybrid and virtual events during the pandemic, in-person events ongoing beginning AY22-23

METRICS: High schools visited by COE Ambassadors; high school students engaged

COE collaborates with the COE Ambassadors (current undergraduate students) on the winter high school visit program. The program was launched in 2018 when the COE Ambassadors visited over 10 high schools in Oregon to talk to students about engineering. This program continued through the pandemic with virtual visits in winter 2020 and hybrid events in 2021. In-person high school visits will resume in winter 2022. COE tries to focus on schools with high percentages of students of color and free and reduced lunches, but is limited by the ambassadors' locations during winter break, so a variety of schools with varying student bodies are visited by the ambassadors. As part of the visits, student interest forms are collected, and student information is submitted to Admissions. The students are added to the university's student database and continue to receive engineering information. On average, COE ambassadors engage with 200-400 students per year through this program.

TACTIC 5: ENGINEERING SUMMER CAMP FOR MIDDLE AND HIGH SCHOOL STUDENTS

STATUS: Inaugural event launched with expansion ongoing

METRICS: Students from the targeted middle/high schools entering the COE undergraduate program

COE partnered with the Educational Opportunities Program (EOP) and the STEM Academy program at OSU to launch a new engineering summer camp in 2019. The inaugural event was a two-day overnight camp to recruit students from Harriet Tubman Middle School (HTMS) and the Building Blocks 2 Success (BB2S) non-profit organization in Portland, OR. HTMS is a feeder school to Jefferson High School, the high school with the highest percentage of underrepresented students in Oregon. At the same time, BB2S primarily supports underserved students from lower socio-economic backgrounds and students of color. The summer camp was not offered in 2020 due to COVID but expanded to a whole week in 2021. In 2022, two one-week camps were offered, one for BB2S and another for students from [Elevate Oregon](#). COE intends to continue this schedule in future summers. COE works with EOP and Admissions to ensure participants have multiple ways of engaging with the university long after attending the camp.

TACTIC 6: OREGON MIGRANT ENGINEERING INSTITUTE

STATUS: Inaugural camp offered; continuing events planned

METRICS: Institute participants entering the COE undergraduate program

Through a partnership with the OSU College Assistance Migrant Program (CAMP), COE initiated the Oregon Migrant Engineering Institute (OMEI) in the summer of 2022, and welcomed 20 high school students for this inaugural offering. This one-week camp is modeled after the CAMP Oregon Migrant Leadership Institute, initially established in 2010, and seeks to engage migrant high school students and promote careers in engineering. OMEI exposes students to a variety of fields within engineering through fun lectures, hands-on activities, and contact with current engineering students, alumni, faculty, and corporate partners. Staff from the COE CDI will remain in touch with the OMEI participants to provide information, answer questions, and keep them abreast of opportunities to pursue studies in engineering at OSU.

TACTIC 7: ENGAGEMENT WITH TEACHERS, COUNSELORS, AND COMMUNITY ORGANIZATIONS

STATUS: Planning ongoing with full rollout anticipated in 2023

METRICS: Students, teachers, counselors, and other community members engaged

Recognizing that recruiting students requires engagement with their entire community, COE will host a three-day Teacher Externship Program on campus to allow teachers, counselors, and career coordinators to learn about engineering at OSU. The goal is to empower these academic leaders to talk about engineering with their students so that more students can see themselves pursuing an engineering degree. The program will include presentations from COE leadership, tours of the engineering campus, tours of COE research facilities, engagement with some of our key industry partners, and a workshop by OSU Precollege Programs on how to incorporate more engineering topics into their curricula, career programming, and counseling advice.

COE is also working with the [Centro Cultural](#) in Washington County to better engage with Oregon's Latinx community. COE initiated the relationship by financially supporting their 2022 Gala de Cultura to celebrate its 50 years in the community. Subsequently, COE was invited to participate in their Día de los Niños event, where current engineering students facilitated hands-on engineering activities with children and their parents. Engagement with Centro Cultural through these and other mechanisms is an ongoing effort.

UNDERGRADUATE STUDENTS

OSU is one of only four Land, Sea, Space, and Sun grant universities in the nation, and we consider our mission of student access a top priority. The largest constituent group within COE is undergraduate students, who represent one-third of the OSU undergraduate population. These students arrive at OSU with different lived experiences and varying levels of preparation; COE seeks to provide the opportunity for an engineering education for every student, regardless of background. The tactics detailed in this section aim to support students in the classroom and the community through educational, financial, interpersonal, and wellness initiatives.

TACTIC 1: DISCONTINUE CAPACITY-LIMITED PROGRESSION MODEL

STATUS: "Professional School" model eliminated in 2019, progress monitoring is ongoing

METRICS: Undergraduate student retention, number of students on academic suspension

In 2019, COE discontinued using a capacity-limited "professional school" and moved to a GPA- and course completion-based progression model that focuses on individual student needs and success. We estimate that this change has saved some students one to two terms of time and educational costs. As part of this move away from the professional school model we have increased advising and success interventions in the first two years of student programs; improved interventions for incoming transfer and non-traditional students; and developed more consistent success markers and flags to trigger intervention and academic support that are tracked term-by-term instead of annually. Positive results since this change was implemented in the fall of 2019 include an increase in academic advising and student services support by 50%; reduced the number of students moving from academic warning to academic probation from 13% to 3% through earlier interventions; reduced the number of suspended students at the time of professional school evaluation from approximately 10% to approximately 1% as of summer 2022; and removed subjective measures impacting student success, including altering language and communications to focus on support rather than criticism. Overall, replacing the professional-school model with a progression-based model coupled with an improved first-year curriculum (discussed subsequently) **has statistically eliminated the achievement gap: there is currently no difference in first-year retention between students from underrepresented groups and the rest of the student body.**

TACTIC 2: ENGINEERING+: AN IMPROVED AND INTEGRATED FIRST-YEAR EXPERIENCE

STATUS: Pilot offering in AY20-21, full rollout AY21-22, continuous improvement moving forward

METRICS: Undergraduate student retention and graduation rates

COE has introduced a new first-year experience, *Engineering+*. *Engineering+* is a formalized, three-term curriculum, reflected in co-curricular events and courses (one per term) that facilitate the exploration of all engineering disciplines offered in COE, as well as a wide range of technical, professional, and success skills. The implementation of *Engineering+* has been four years in the making, with the rollout in AY21-22 requiring curricular modifications across each of COE's 19 unique major programs. Removing the pro-school model and moving to a progression model has been shown to eliminate the achievement gap statistically.

Engineering+ promotes inclusive excellence in COE on three main fronts: research-based instruction, accountability of student teamwork, and supported teamwork opportunities. The co-curricular events and activities emphasize community building, major exploration, student support, and professional skill development. The three courses focus on the connections between foundational science, engineering, and society. They are structured as lecture sections coupled with smaller (25-30 students) active-learning studio sections to encourage richer connections between students, first-year instructors, and their peers. Studios allow students to practice engineering work in authentic situations – collaborating in small groups on complex, open-ended problems with multiple constraints and stakeholders – while also practicing the professional skills needed to handle technical and social challenges. Elements of social, technical, environmental, and sustainability impacts are included in the courses to educate students on the sociotechnical nature of engineering practice and the tangible, but sometimes unseen, impacts of the implicit biases present in many design decisions. The assignments challenge students to recognize structural barriers to equity in engineering design and to identify mechanisms to remove them. Appreciating these issues in professional practice increases students' feelings of belonging and community. The *Engineering+* courses are designed around various themes to enable major exploration across COE, leading to more informed major selection at the end of the first year and greater long-term retention.

TACTIC 3: SUPPORT FOR AFFINITY-BASED STUDENT ORGANIZATIONS

STATUS: CDI formally established, student affinity group support expanded and ongoing

METRICS: COE students who participate in affinity-based student organizations

In the winter of 2019, COE renamed their Women and Minorities in Engineering office as the Center for Diversity and Inclusion (CDI) to better align with ongoing efforts across campus, including efforts to better serve first-generation students, LGBTQ+ students, low-income students, international students, and others from historically underrepresented groups. COE has hired a Recruitment and Diversity Initiatives Coordinator who serves as CDI's Director. The CDI supports a total of [ten affinity-based student organizations](#) with a collective membership of over 2000 students as of fall 2022: Association of Computing Machinery – Women's Chapter (ACM-W), Girls' Empowerment, Engineering, and Outreach (GEEO), Girls Who Code, National Society of Black Engineers (NSBE), Out in STEM (oSTEM), Phi Sigma Rho, Society for the Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS), Society of Asian Scientists and Engineers (SASE), Society of Hispanic Professional Engineers (SHPE), and Society of Women Engineers (SWE). The CDI also supports Engineers That Read (ETRE), a club resembling a book club with more intentional dialogue and reflection around social justice topics as they relate to the profession of engineering. COE is working to have ETRE become a sponsored student organization during the 2022-23 academic year. As evidence of COE's commitment to such initiatives, two ETRE members were fully supported to attend the 2022 National Conference on Race and Ethnicity in Higher Education (NCORE).

TACTIC 4: COMMUNITY BUILDING AND SUPPORT THROUGH THE CDI

STATUS: Efforts ongoing, including continuous evaluation for improvement

METRICS: Six-year graduation rates for students from underrepresented populations

Students who feel seen and heard are likely to persist and overcome obstacles on the path to their degree. To this end, the CDI supports our students from underrepresented groups in various ways, with the overarching goal of fostering community and a spirit of belonging. If they wish, every student and their family have an opportunity to meet with an advisor the first time they visit campus. When they leave, their questions are answered, and they are prepared to begin their academic journey. The CDI Director links them with organizations like the [Louis Stokes Alliance for Minority Participation](#), [STEM Leaders](#), [College Assistance Migrant Program](#), and the [Engineering Student Council](#), along with providing information about scholarship opportunities.

TACTIC 5: ENGINEERING FOR SOCIAL JUSTICE WORKSHOP SERIES

STATUS: Original goals accomplished; program expansion underway

METRICS: Number/percentage of COE undergraduate students participating in the workshops

In winter 2019, COE offered its first Engineering for Social Justice workshop through the [COE Leadership Academy](#). In the two-hour workshop, students explored how the engineering profession can support resilient communities and a socially just society. Students reflected on their curricula/training to identify areas for improvement so that equity, diversity, and inclusion can be at the center of the engineering profession. This workshop has since been adapted, customized, and deployed in a variety of venues, including regular inclusion in the Electrical and Computer Engineering (ECE) capstone course as a two-part lecture; adoption of the lecture in several courses within Chemical, Biological, and Environmental Engineering (CBEE); and regular offerings to the Engineering Student Council.

The CDI has also partnered with OSU's Social Justice Education Initiative to develop a new workshop focused on Engineering Ethics, mainly centered on and viewed through the lens of social justice. This workshop has been offered multiple times, including as a seminar to the students, faculty, and staff of the School of Nuclear Science and Engineering (NSE). To help further develop the workshop series, COE hosted Dr. Juan Lucena, a recognized expert in social justice in engineering, to help our faculty understand how social justice can be intentionally embedded in our curriculum. During his visit, Dr. Lucena facilitated a four-hour workshop for the entire COE community and an additional four-hour workshop for the *Engineering+* instructional team (see *Tactic 2* above).

TACTIC 6: SUPPORT FOR UNDOCUMENTED STUDENTS

STATUS: Conditional administrative proposal received, planning and implementation activities ongoing

METRICS: Number of undocumented student employees in COE

Undocumented students cannot be employed on campus since they cannot hold a driver's license or social security number. COE is collaborating with the Educational Opportunities Program and Dreaming Beyond Borders Center on campus to establish an avenue to actively hire and compensate undocumented students in COE, becoming the first unit on campus to create a pathway for undocumented students to become employed on campus. We have received approval for our plan from the OSU General Counsel and conditional approval from the COE office of human resources. We are in the process of establishing a Dreamer's Fellowship to allow undocumented students, DACA students, and students from mixed-status families to engage in paid opportunities. We are leveraging the experience of colleagues at UC-Irvine, who have successfully implemented a similar program.

TACTIC 7: ESTABLISHING THE DEAN'S INCLUSIVE TEACHING INITIATIVE GRANT PROGRAM

STATUS: Administration process developed, rollout complete, first grant awarded, solicitations ongoing

METRICS: Grant applications and grants funded

Students who feel that they belong in a course are known to perform better than those who do not, yet sadly, women and students of color consistently report less of a sense of belonging in STEM courses. The Dean's Inclusive Teaching Initiative (DITI) Grant Program was established in AY2021-22 and is intended to facilitate inclusive teaching practices in COE courses through novel approaches to incorporating topics related to diversity, equity, inclusion, and social justice. The program is designed to be responsive and nimble, so grant application decisions are typically returned within one month of initial submission. Feedback is provided to the proposer; if a grant is not funded, that feedback can be used to help develop an immediate resubmission. Academic faculty, Research Associates, Postdoctoral Scholars, Postdoctoral Fellows, staff, Graduate Teaching Assistants, and Undergraduate Learning Assistants may serve as a PI or co-PI on a DITI grant. Through these efforts, we strive to create a community where all students feel equally welcome, included, and capable of succeeding.

TACTIC 8: SUPPORT FOR CENTER FOR TEACHING AND LEARNING (CTL FELLOWS

STATUS: Teaching and learning needs assessment complete, implementation beginning AY 22-23

METRICS: COE working internally to identify CTL Fellow for AY22-23

COE empowers faculty to drive cultural change within the curricular redevelopment of courses through the university-wide CTL Fellows program. This program seeks to provide quality, college-specific pedagogical support to teaching faculty via partnerships with OSU centralized faculty support units and through the development of CTL Fellows who bridge centralized efforts and college-specific teaching faculty needs, paving the way for teaching excellence and student success. COE has participated in the program since its pilot in AY20-21. The COE CTL Fellow developed a teaching and learning needs assessment and action plan in the most recent academic year. Moving forward, COE can leverage the research and findings of the report to implement the recommendations through future CTL Fellows.

TACTIC 9: DEVELOP AND IMPLEMENT COE MENTAL HEALTH IMPROVEMENT PLAN

STATUS: Plan developed and executed; full-time dedicated counselor hired; monitoring of progress

METRICS: Number of students using the counselor, student responses from ongoing monitoring surveys

During AY21-22, due to a perceived increase in students struggling with mental health issues and informed by responses to the 2019 University-wide *Student Inclusivity Survey*, COE approached OSU Counseling and Psychological Services (CAPS) to engage in a collaborative effort to assess and improve student well-being. CAPS confirmed that 24% of their clients over the past 12 months had been COE students – over 11% of the COE student population in one term alone. Indeed, COE students are a community considered by CAPS as being at high risk for mental health challenges, given the academic stressors they experience. The COE-CAPS team developed a plan to assess the mental health needs of COE students using a diverse strategy that included establishing an advisory board, conducting surveys on student well-being, convening focus groups, hiring a Master's of Public Health intern, and ultimately, hiring a 1.0 FTE CAPS counselor embedded within COE and dedicated to working with COE students on the specific challenges that they face. During AY22-23, a committee of stakeholders will meet bi-weekly to review assessment data of barriers and challenges to student mental health and develop recommendations.

GRADUATE STUDENTS

The disparities in enrollment seen in undergraduate engineering programs are often amplified at the graduate level. Recruitment and support of graduate students require different tactics from those employed for undergraduate students. The actions below focus on fundamentally improving the way we identify and engage potential graduate students, evaluate their applications, support them financially, and prepare students for professional success.

TACTIC 1: RECRUITING AND SUPPORTING GEM FELLOWS

STATUS: GEM membership established, recruitment and fundraising ongoing

METRICS: GEM fellows in COE

In 2017, COE joined the GEM Consortium on behalf of OSU. GEM is a network of leading corporations, government laboratories, top universities, and research institutions that enables qualified students from underrepresented communities to pursue graduate education in STEM disciplines. COE's Associate Dean for Graduate Programs (ADGP) serves as the GEM University Representative and facilitates recruiting across all STEM programs at OSU, including those outside of COE. The ADGP also coordinates with GEM and employers on matching students with employers and faculty. From 2019 through 2021, OSU had between 3 and 4 GEM fellows. For AY 2022-2023, OSU has 11 GEM fellows (10 in COE). The OSU Graduate School waives the application fee for all GEM applicants.

TACTIC 2: HOLISTIC ADMISSION PRACTICES

STATUS: Practices adopted College-wide, actively implemented subject to continuous improvement

METRICS: Applications submitted by prospective students from traditionally underrepresented groups

Through a coordinated effort by COE, all schools in the College have adopted more holistic admission practices, clearly recognizing that there are multiple ways that incoming students can contribute to our graduate programs. The four elements generally employed for applicant evaluation include: (i) academic preparation, (ii) research experience or potential; (iii) motivation and resilience; and (iv) EDI contribution and awareness. Some of the programs have made the GRE optional or are no longer considering it at all. We are developing data analytics to help programs understand the effect of their graduate review and admissions decisions on the demographics of their matriculated students. COE also uses holistic decision-making practices in selecting college-level scholarship and fellowship recipients, emphasizing the breadth of an applicant's experiences and contributions to diversity and community.

TACTIC 3: LIVING-WAGE ASSISTANTSHIP STIPENDS

STATUS: Initial wage increase implemented; ongoing cost-of-living increases planned

METRICS: COE GRA/GTA stipends consistent with local living wage calculations

COE is implementing a living-wage policy for graduate assistantships in the College. The MIT Living Wage for Corvallis, OR, is approximately \$2,650/month. Beginning with AY2022-23, all monthly assistantship offers will be a minimum of \$2,150/\$2,300 (MS/PhD) for 0.40 FTE of effort. This corresponds to monthly stipends of \$2,630/2,820 (MS/PhD) at a 0.49 FTE, the maximum allowable effort. The College has set aside funds for the first academic year to support the transition, but schools and PIs will budget for the increased salary rates moving forward. Minimum salaries will be increased by 2%-

5% annually to a target value of \$2,500/month for 0.40 FTE in conjunction with continuous reevaluation of the differential between incoming students with and without an MS degree. Future cost of living increases will be consistent with OSU guidance but continually assessed relative to the MIT Living Wage.

TACTIC 4: CULTIVATE PIPELINES TO MINORITY-SERVING INSTITUTIONS

STATUS: Pilot offering planned AY22-23

METRICS: Graduate school applications from undergraduates attending a minority-serving institution

The inaugural *Laboratory Exploring Advanced Degrees* (LEAD) workshop will be held during the fall 2022 term. The three-day workshop will help familiarize students with graduate school, including research, funding, and the application process. Attendees will have ample time to spend with COE faculty and existing graduate students. Two goals of LEAD are to provide graduate school resources to undergraduates from underrepresented populations and to help recruit underrepresented students to COE. To this end, we will leverage existing relationships at Kennesaw State University, University of Puerto Rico-Mayagüez, Fort Lewis College, and Northwest Indian College to identify students potentially interested in pursuing a graduate degree in engineering at OSU. We plan to have 10-12 students attend the first year. COE will cover all student costs related to attendance. Moving forward, we will work to raise funds to expand recruiting to other minority-serving institutions and grow the size of the cohort that we bring to campus each year.

TACTIC 5: COE GRADUATE STUDENT AMBASSADOR PROGRAM

STATUS: First cohort of ambassadors hired and engaged with the program

METRICS: Graduate student ambassadors, graduate student applications, admitted graduate students

COE has recruited a group of three Graduate Ambassadors from current graduate students in COE. The program is modeled after our long-running and successful COE Undergraduate Ambassadors program. The COE Graduate Ambassadors will help COE attend and recruit at affinity-based conferences (e.g., SACNAS, SWE, GEM) and provide support during prospective/admitted graduate student visit days. With this program in place, COE hopes to encourage more students to apply for graduate school at OSU and to increase the number of accepted students who ultimately join our programs. After a pilot year, we expect to grow this program.

TACTIC 6: COMMUNICATIONS, PRESENTATION, AND INTERVIEW COACHING FOR PH.D. STUDENTS

STATUS: Initial workshops planned and budgeted, future workshops anticipated

METRICS: Number of students participating in the training

Beginning in AY2022-23, we will offer communications and presentation training from an outside consultant to our graduate students, with 1-on-1 training for a select group of students. As our top students prepare for the most competitive and high-profile job openings (e.g., academia, Silicon Valley, Wall Street), we believe that communications training could be of disproportionate benefit to students with specific backgrounds and/or identities – e.g., first-generation students, non-native speakers, students who have been historically marginalized because of their outward appearance or sexual presentation – who may have less experience (and thus, less confidence) giving professional talks. The workshops will help make these students more competitive for the most in-demand jobs available.

TENURED/TENURE-TRACK FACULTY

Tenured and tenure-track faculty are both outward-facing members of our community and educators and mentors to our students. Recruiting and retaining high-quality faculty that support the values of COE and OSU is an integral component of our enduring success as a College. The tactics outlined below focus on engaging the best faculty candidates in our programs, supporting them professionally and interpersonally once they arrive, and preparing them to be the best possible educators and mentors to our students that they can be.

TACTIC 1: STIMULATE AN INCREASINGLY DIVERSE APPLICANT POOL FOR OUR OPEN FACULTY POSITIONS

STATUS: Ongoing, with continuous evaluation

METRICS: Number/ percentage of faculty applications from traditionally underrepresented groups

OSU has recently joined the Southern Regional Education Board (SERB) as an institutional member. Our Chief Diversity Officer is the only SERB Regional Advisory Committee member from a university west of the Rocky Mountains. We are leveraging the SERB Doctoral Scholars Program and a host of other venues (HERC Jobs, U.S. National Labor Exchange,

Insight into Diversity, Partners in Diversity, and others) to actively increase the diversity of our applicant pools. We will work with the OSU Office of Institutional Diversity and the OSU Search Advocate Program Director to develop tangible, actionable strategies to maximize diversity in our applicant pools and, subsequently, to maximize “yield” from these efforts – the numbers of candidates from underrepresented groups who come for campus interviews and are later offered and accept jobs. These efforts are informed by review of Equal Employment Opportunity data at every stage of the search and recruitment process as we seek to identify any possible sources of implicit or explicit bias in our processes.

TACTIC 2: PARTICIPATE IN THE OREGON STATE UNIVERSITY PREDOCTORAL SCHOLARS PROGRAM

STATUS: First engagement during AY21-22, planned participation in AY22-23 and ongoing

METRICS: Funding for program, development of proposal

COE is an active participant in the OSU Predoctoral Scholars Program (PDSP), which seeks to bring a cohort of late-stage (typically, all-but dissertation, ABD) doctoral students to campus for a five-day experience that includes mentoring opportunities with OSU faculty who have similar research areas, meetings with OSU leadership, and interactions with the broader OSU and Corvallis communities. The program is hosted by the OSU Office of the Provost in collaboration with the Office of Institutional Diversity and with support from the Jackson Family Diversity, Equity, and Inclusion Fund. The PDSP is designed to enhance and recognize the scholarship of ABD scholars from all disciplines committed to EDI and to increase the presence of EDI-committed scholars at OSU. Candidates for the program are recruited at the SERB’s annual Institute on Teaching and Mentoring and through upstream recruiting that leverages existing faculty professional and social networks. COE recently partnered with the College of Education on a dual hire that was the direct outcome of one partner participating in the 2021 PDSP. As a result of this success, COE is now actively attempting to secure funding to expand the OSU program to include additional ABD engineering scholars in future PDSP cohorts.

TACTIC 3: INTEGRATE FACULTY EDI EXPECTATIONS THROUGHOUT THE PROMOTION AND TENURE LIFECYCLE

STATUS: New position descriptions deployed and adopted by faculty

METRICS: Percentage of faculty in COE with updated position descriptions

The promotion and tenure (P&T) guidelines in the OSU Faculty Handbook indicate that faculty contributions in promoting equity, diversity, and inclusion will be evaluated as part of promotion and tenure decisions. To this end, COE has undertaken a comprehensive effort to integrate EDI throughout the P&T lifecycle, from establishing position descriptions (PDs), through dossier preparation, annual reviews, and ultimately, the P&T decision. When completed, all faculty PDs will explicitly indicate that each faculty member has a responsibility to be able to clearly articulate their contributions to the College’s strategic goal of inclusive excellence. The standard P&T dossier used by faculty in COE has been modified to provide a section for faculty to detail their efforts in promoting EDI, including any outcomes and impacts. These contributions will be evaluated at all stages of the P&T process.

TACTIC 4: FACILITATE AND PROMOTE PROFESSIONAL DEVELOPMENT

STATUS: Ongoing

METRICS: Number of faculty taking advantage of professional development opportunities

The College has undertaken a comprehensive effort to support meaningful professional development for all faculty, specifically focusing on our early career colleagues. This includes a year-long *New Faculty 101* workshop series that provides training and instruction related to classroom teaching, student mentoring, and developing a research program, along with many opportunities for relationship building and the cultivation of a community. The programming is focused on the ideals of inclusive excellence. It includes topics such as providing support for struggling students, the development and maintenance of inclusive teaching practices, and approaches to fostering a safe culture in research and teaching laboratories. Through these efforts, we strive to help faculty (and, as a result, students) understand that they are a valued member of the COE community and that their success, health, and well-being matter to the College. The activities involve external experts coming to OSU to share their knowledge and our in-house expertise. While these efforts are geared towards new faculty, existing faculty are also invited – and attend – many events.

In addition to the workshop series established for new faculty, COE has a longstanding tradition of supporting ongoing professional development throughout a faculty member’s career arc. The College sponsors faculty to participate in the *Faculty Success Program* offered by the National Center for Faculty Development and Diversity (NCFDD) each fall, spring, and summer. We work to target faculty we believe would most benefit from the program, especially those from underrepresented groups within COE. The College also works to specifically identify future leaders from underrepresented groups and provide them with exceptional, personalized, in-depth professional development opportunities such as the *Executive Leadership in Academic Technology, Engineering and Science* (ELATES) program at Drexel University and the *iAspire Leadership Academy*.

TACTIC 5: SUPPORT FOR MEMBERSHIP IN THE SOCIETY OF WOMEN ENGINEERS

STATUS: Ongoing

METRICS: Number of faculty seeking membership in SWE

Since 2019, COE has sponsored membership in the Society of Women Engineers (SWE) for any faculty member in the College who wants to join. The number of COE faculty who are SWE members has grown to over 60 for the most recent membership cycle. This is a visible commitment to the need for increasing the ranks of women in engineering fields and one to which COE remains committed.

TACTIC 6: SYSTEMATIC OVERVIEW OF PROMOTION AND TENURE PROCESSES

STATUS: In process, data collection complete, initial workshops to be offered AY22-23

METRICS: Documentation and elimination of any bias existing in the P&T process

COE began a comprehensive review of its promotion and tenure (P&T) process in 2022. This effort aims to identify and eliminate bias in the process and ensure that diverse contributions to COE from all faculty can be recognized. While it is each faculty member's responsibility to satisfy the requirements of their position description and the P&T guidelines in the OSU Faculty Handbook, there is little specificity on how an individual faculty member can achieve these goals. We seek a P&T process that reflects the holistic contributions of our faculty. We are reviewing our approach and those of peer and peer-aspirant institutions and evaluating them in light of the existing literature on promotion and tenure in academic environments to identify best practices. We will have a series of workshops with school heads and the chairs of school P&T committees to socialize what we are learning and work through case studies to illustrate the importance of identifying and eliminating bias in the process.

PROFESSIONAL FACULTY AND STAFF

In many ways, professional faculty and staff form the backbone of the College: they support students, tenured and tenure-track faculty, and facilitate the overall success of COE. In return, COE will support their personal and professional success. The tactics below aim to ensure that professional faculty and staff remain professionally engaged and challenged while maintaining a healthy work-life balance.

TACTIC 1: SUPPORT FOR FLEXIBLE WORK ENVIRONMENTS AND SCHEDULES

STATUS: Formal guidelines established in 2022, implementation and support ongoing

METRICS: Professional faculty and staff taking advantage of flexible work arrangements

Consistent with current and ongoing OSU policy, COE supports flexible work arrangements for our professional faculty and staff. Many support systems – notably, child and elderly care – are slow to recover from the COVID-19 pandemic. COE professional faculty and staff have been particularly affected by this disruption. The College has helped staff react to these difficulties through copious use of flexible work schedules and locations. Understanding that this will be the new mode of operations moving forward, COE has started to consolidate office and operational space within our campus footprint, which provides a solid message to professional faculty and staff that their new flexibility is stable and likely to continue.

TACTIC 2: ENHANCED PROMOTION OF PROFESSIONAL FACULTY/STAFF JOB OPENINGS

STATUS: Ongoing

METRICS: Number and percentage of applications from traditionally under-represented groups

COE will work with the OSU Office of Equal Opportunity and Access to incorporate best practices in disseminating and advertising job postings and revise our Affirmative Action Plan annually.

TACTIC 3: EMPHASIS ON STAFF SUPPORT, RECOGNITION, EMPOWERMENT, AND INTERNAL PROMOTIONS

STATUS: Ongoing; staff awards given annually, Associate Dean position established, promotion efforts in progress

METRICS: Retention rate for professional faculty and staff

COE has embraced a renewed focus on personal and professional satisfaction for professional faculty and staff. Exceptional staff are recognized annually at the COE Celebrate Excellence event. During AY20-21 the Associate Dean for Faculty Advancement's role was expanded to include staff as well, with the new title of Associate Dean for Faculty and Staff Advancement appropriately recognizing the shift. Furthermore, COE commits to working with the Classification and Compensation team in University Human Resources to identify and exploit opportunities to adjust position descriptions and facilitate upward mobility by our top-performing staff.

CROSS-CUTTING EFFORTS

Ultimately, COE is a team that includes students, staff, and faculty working together to establish a community that values and promotes inclusive excellence. We recognize the importance of developing cohorts, living shared experiences, and fostering relationships throughout the COE community. We thus commit to the cross-cutting efforts outlined below to promote diversity and inclusion: engaging with the broader campus community, seeking feedback and guidance from constituencies within COE, and learning collectively about topics that matter to us all.

TACTIC 1: PARTICIPATE IN UNIVERSITY-LEVEL EFFORTS TARGETED AT EDI-RELATED INSTITUTIONAL CHANGE

STATUS: Ongoing, COE faculty and staff actively engaged in broader OSU activities

METRICS: COE administrators, faculty and staff demonstrably engaged with university EDI activities

Fully one-third of OSU students are housed within COE. As such, the COE community must be engaged with and demonstrate leadership in OSU's institutional mission of achieving inclusive excellence. Administrators, faculty, and staff have historically participated in University-level activities such as the President's Council on the Status of Women, OSU ADVANCE, the Difference, Power, and Discrimination Program, and the Equity Leaders' Consortium, and continue to do so now and into the future. The position of College leadership on this is clear – faculty and staff are encouraged to engage in the broader campus discussions about EDI, should be provided flexibility by their supervisors to do so, and their efforts should be recognized in annual reviews and P&T decisions.

TACTIC 2: ESTABLISHING A COMMUNITY GOAL ADVISORY COMMITTEE

STATUS: Committee established in AY21-22; activities ongoing

METRICS: Committee engagement, development and deployment of initiatives

The Community Goal Advisory Committee (CGAC) was established as a small, nimble group of faculty and staff to provide feedback and advice on COE efforts to achieve the Community Goal in the Strategic Plan. The CGAC comprises community members from different schools within the College at different ranks and having different levels of experiences and lived histories. We make every effort to leverage the CGAC to provide a robust lens for visualizing how the broader College community will receive the COE efforts toward inclusive excellence. This assists us in focusing on efforts expected to foster engagement and affect real change rather than those that might ring hollow when put into actual practice.

TACTIC 3: SUPPORT BROAD ENGAGEMENT IN PROFESSIONAL DEVELOPMENT RELATED TO EDI

STATUS: Ongoing

METRICS: Community members participating in these activities

COE firmly believes that all faculty, staff, and students should be educated about and comfortable discussing issues related to EDI. To this end, we heavily leverage internal and external resources to OSU to provide educational and growth opportunities to members of the College community. Recent examples include funding a cohort of 10 faculty, staff and students to attend the 2022 National Conference on Race and Ethnicity in Higher Education (NCORE); establishing a cohort of faculty and staff to participate in Social Justice Education Initiative workshops conducted at OSU; and bringing outside experts on inclusive community building to work with our faculty and staff. Furthermore, through OSU's institutional membership, all graduate students, postdoctoral scholars, and faculty have access to the National Center for Faculty Development and Diversity (NCFDD), which provides professional development, training, and mentoring. The enthusiasm for these activities is palpable, and COE will continue to offer and encourage these activities across our entire community.

Table 1. Progress on tactics identified in the EDI Plan from 2018-19 to 2022-23.

2018-2019 COE Diversity and Inclusion Plan					2022-2023 COE Equity, Diversity, and Inclusion Plan				
Tactics	Progress				Tactics	Progress			
	Planning Phase	Initial Implementation	Final Implementation	Maintenance Phase		Planning Phase	Initial Implementation	Final Implementation	Maintenance Phase
K-12/Community College Pipeline									
Increase visibility of K-12 outreach programs in the COE					Increase visibility of COE K-12 outreach programs				
Expansion of Beaver Hangouts Program					Expansion of Beaver Hangouts Program				
Summer Experience in Science and Engineering for Youth (SESEY)					Summer Experience in Science and Engineering for Youth (SESEY)				
Expand winter high school visit program					Expand winter high school visit program				
Engineering Summer Camp for middle school students					Engineering Summer Camp for middle and high school students				
					Oregon Migrant Engineering Institute				
					Engagement with teachers, counselors, and community organizations				
Undergraduate Students									
First-year experience and change from professional school to a progression-based model					Discontinue Capacity-Limited Progression <i>Engineering+</i> : An Improved and Integrated First-Year Experience				
The COE Center for Diversity & Inclusion and staff support for affinity-based student organizations					Support for Affinity-Based Student Organizations				
					Community Building and Support Through the CDI				
Engineering for Social Justice Workshop					Engineering for Social Justice Workshop Series				
Support for Undocumented Students					Support for Undocumented Students				
					Establishing the Dean's Inclusive Teaching Initiative Grant Program				
					Support for Center for Teaching and Learning (CTL) Fellows				
					Develop and Implement COE Mental Health Improvement Plan				

2018-2019 COE Diversity and Inclusion Plan					2022-2023 COE Equity, Diversity, and Inclusion Plan				
Tactics	Progress				Tactics	Progress			
	Planning Phase	Initial Implementation	Final Implementation	Maintenance Phase		Planning Phase	Initial Implementation	Final Implementation	Maintenance Phase
Graduate Students									
GEM Consortium membership					Recruiting and Supporting GEM Fellows				
Holistic Admission Practices					Holistic Admission Practices				
Active recruiting at affinity-based conferences									
					Living-Wage Assistantship Stipends				
					Cultivate Pipelines to Minority-Serving Institutions				
COE Graduate Student Ambassador Program					COE Graduate Student Ambassador Program				
					Communications, Presentation, and Interview Coaching for Ph.D. Students				
Tenured/Tenure-Track Faculty									
Stimulate an increasingly diverse applicant pool for our open faculty positions					Stimulate an increasingly diverse applicant pool for our open faculty positions				
Explore bringing an engineering faculty preparation workshop to Oregon State					Participate in the Oregon State University Predoctoral Scholars Program				
					Integrate Faculty EDI Expectations Throughout the P&T Lifecycle				
					Facilitate and Promote Professional Development				
					Support for Membership in the Society of Women Engineers				
					Systematic Overview of Promotion and Tenure Processes				

2018-2019 COE Diversity and Inclusion Plan					2022-2023 COE Equity, Diversity, and Inclusion Plan				
Tactics	Progress				Tactics	Progress			
	Planning Phase	Initial Implementation	Final Implementation	Maintenance Phase		Planning Phase	Initial Implementation	Final Implementation	Maintenance Phase
Professional Faculty and Staff									
Support for establishing a Professional Faculty Network									
					Support for Flexible Work Environments and Schedules				
Enhanced promotion of professional faculty/staff job openings					Enhanced promotion of professional faculty/staff job openings				
					Emphasis on Staff Support, Recognition, Empowerment, and Internal Promotions				
Cross-Cutting Efforts									
Participate in university-level efforts targeted at DEI-related institutional change					Participate in university-level efforts targeted at EDI-related institutional change				
Continued support of the COE Change Team					Establishing a Community Goal Advisory Committee				
					Support Broad Engagement in Professional Development Related to EDI				

UPDATES TO THE ORIGINAL DEI PLAN

SUMMARY

The College's original DEI Plan (2018-19) has been updated and expanded to reflect COE's efforts toward inclusive excellence. Modifications were generally motivated by: (i) increased emphasis on and expansion of successful tactics, (ii) adjustment of some tactics to improve efficacy, or (iii) transitioning from a largely completed tactic to a follow-on effort. Specific changes in the DEI Plan from the original (2018-19) version to the current one (2022-23), including progress on the tactics outlined in the plans, are summarized in Table 1 below. Specific changes are discussed below.

K-14 OUTREACH EFFORTS

Most of the tactics in this area are ongoing and have been expanded to increase the number of potential students engaged by the efforts, including Beaver Hangouts, high school visits, and summer camps. In addition, COE has initiated two new tactics, the Oregon Migrant Engineering Institute and engagement with teachers, counselors, and community organizations. These were natural outgrowths from other successful activities. Efforts to increase the visibility of COE outreach programs were reset after adopting new customer relationship management (CRM) software and are now moving forward. In parallel, the SESEY program is still active within the School of Chemical, Biological, and Environmental Engineering, but College-wide adoption is on hold pending the CRM rollout.

UNDERGRADUATE STUDENTS

Efforts related to undergraduate students have been substantially expanded. Our curricular efforts have included the successful transition from capacity-limited "professional school" to a GPA- and course completion-based progression model followed by the successful rollout of a new first-year experience for all incoming first-year students. COE efforts also include improved support for affinity-based organizations, a workshop series focused on engineering for social justice, improved support for undocumented students, an internal grant program for faculty to develop more inclusive teaching practices, and the implementation of a student mental health improvement plan.

GRADUATE STUDENTS

Tactics focused on graduate students outlined in the EDI Plan relate to recruiting new students and support for existing students. We have expanded our engagement with the GEM program, implemented holistic admission practices across the College, and are currently piloting the graduate student ambassador program. Our new efforts include the cultivation of pipelines to minority-serving institutions, providing living wage stipends to all graduate research and teaching assistants, and providing Ph.D. students with the opportunity for communications and presentation training. Our proposed efforts to expand recruitment at affinity-based conferences were hampered during the pandemic. Still, we plan to re-engage with this effort through our graduate student ambassadors program moving forward.

TENURED AND TENURE-TRACK FACULTY

COE continues to work to improve the diversity of our applicant pools for open tenure-track faculty positions through leveraging relationships with external entities to broaden the dissemination of our openings and by working with the OSU Office of Institutional Diversity and the Search Advocate program to ensure that our processes are as inclusive and bias-free as possible. We have started working with the OSU Predoctoral Scholars Program to bring late-stage doctoral students to campus for a five-day visit to highlight the excellent opportunities and climate available to early-career faculty here. New tactics in this area include direct integration of faculty EDI responsibilities into the promotion and tenure process, facilitating professional development activities, and providing all faculty with the opportunity to join the Society of Women Engineers. We are undertaking a system-atic overview of our promotion and tenure practices to identify and eliminate any existing bias.

PROFESSIONAL FACULTY AND STAFF

COE continues to identify mechanisms through which we can support our professional faculty and staff. We have greatly expanded and formalized the opportunity for our staff to use flexible work environments and schedules and have placed renewed emphasis on staff support, recognition, and empowerment. We continue to highlight internal opportunities to our staff as we seek to promote from within to the greatest extent possible. Establishing a professional faculty network was not as successful as we had hoped, likely due to a combination of stressors from the pandemic and a lack of an internal champion amongst the professional faculty, so we have refocused those efforts in other areas.

CROSS-CUTTING EFFORTS

The College's cross-cutting efforts continue to include engagement with university-level efforts targeted at EDI-related institutional change. We have also broadened support for our community's EDI-related professional development activities. The COE Change Team was a powerful force in the College's EDI visioning efforts and produced many positive outcomes. However, it was a large group less well-suited to day-to-day operation within the EDI space, so COE has shifted to a nimbler approach focused on the engagement of leadership and dedicated staff with advisement from a Strategic Plan-focused Community Goal Advisory Committee (CGAC).

MAINTENANCE AND SUSTAINABILITY: CONTINUOUS IMPROVEMENT

The ADFSAs will review this plan in conjunction with the CGAC in June of every year. They will assess the plan through a lens informed by faculty, staff, and student feedback to assess progress to date and identify potential needs for any course corrections. The ADFSAs will make suggestions to the College Leadership Team for any necessary actions to maintain alignment between the plan, ongoing efforts, and the College's goals. Any necessary modifications –to the plan itself, to any continuing efforts, or both – will be informed by this deliberative process.