



THE UNIVERSITY OF ARIZONA

College of Engineering

DIVERSITY, EQUITY and INCLUSION (DEI) Plan

October 24, 2022

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► Introduction

The UArizona College of Engineering remains strongly committed to initiatives that support the University's efforts to achieve an educational and employment environment that is diverse in race, ethnicity, gender-identity, sexual orientation, interests, abilities and perspectives. The College exemplifies the University's commitment to diversity and comprehensive engagement with the expectation that everyone contributes to inclusive excellence. DEI provides a competitive advantage in recruiting and retaining faculty, staff, students and partners. Core DEI values are critical to preparing students to be leaders. Thus, the College aims to attract diverse students and faculty; provide an accessible, problem-oriented engineering education; and improve local and global communities through engineering.

This plan opens with the University Land Acknowledgement Statement ⁽¹⁾:

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

Leadership Commitment

A noteworthy change since the College's April 2019 DEI plan is the pervasive culture and importance of diversity, equity and inclusion throughout the leadership team ⁽²⁾. This is driven by David W. Hahn, the Craig M. Berge Dean of Engineering, and includes the Associate Dean of Faculty Affairs and Inclusion, Kathleen L. Melde; and the Development team, under the direction of Assistant Dean Margie Puerta Edson. The Associate Dean for Research, Mark Van Dyke, promotes DEI in terms of grant writing and strategies involving future engineering workforce development. Business Affairs and Finance, under the direction of Assistant Dean Kriss Pope, reviews salary equity and equitable hiring practices. Led by Associate Deans Jim Baygents and Jim Field, Academic Affairs embraces DEI as it pertains to undergraduate and graduate students.

Since 2019, leaders in UArizona Engineering have participated in several webinars relating to DEI in engineering and universities, including some sponsored by ASEE (American Society of Engineering Education), NSF (National Science Foundation), ECEDHA (Electrical and Computer Engineering Department Heads Association) and National Academies. We have also participated in focus groups from diverse disciplines and training on campus to better understand and craft comprehensive practices that improve DEI in the College.

Representative Staff

The College owes its student recruiting success to its first- and second-year academic advising and student recruitment teams. These teams represent the College's aspirational diversity of undergraduate students. The seven members of these teams include a Black/African-American man, two women, and four team members who identify as Hispanic/Latinx.

Further, the College's Marketing and Communications team is responsible for promoting DEI activities throughout the year. The team does this effectively with bulletin items and ads in ASEE's First Bell as well as news stories in various publications, including the thematic Arizona ENGINEER magazine, which in Winter 2021 focused on diversity ⁽³⁾.

Advancing DEI Across the College

Since 2019, the College has curated a clearer definition of DEI that helps guide activities and focus. Diversity involves diverse representation; whereas inclusion focuses on creating a sense of belonging and identity as an engineer; and equity involves the systemic changes that close representation gaps across all measures.

Thus, this DEI plan focuses on the upcoming three-year timeframe to build upon and improve DEI among UArizona Engineering faculty, staff and student populations. To help form the plan, we consulted with evidence-based strategies from expert sources, such as publications from the National Academies of Science, Engineering, and Medicine (NASEM) and peer reviewed journals ⁽⁴⁾⁻⁽⁷⁾.

The College fosters a culture of continuous measurable improvement to regularly tailor the plan and achieve strong diversity, equity and inclusivity outcomes. The UArizona Engineering DEI Advisory Committee, formed in 2022, helps guide plan revision and improvement.

Progress is measured in terms of increased access; degree, promotion and tenure attainment; connections created, and professional identity. While this plan focuses on near-term activities, the goal is to close equity gaps in access; degree,

► Introduction *(cont.)*

promotion and tenure attainment; and professional identity amongst all academic ranks. We understand this work is continuous, not one and done. The plan and its execution require intentionality at all stages in the process. Thus, this plan focuses on three areas: faculty hiring and retention, student enrollment, and degree attainment.

Engineering's UArizona Identity

Consider the UArizona Engineering identity and characteristics in fall 2022.

- ▶ UArizona is the public, AAU, Research 1, land-grant university in the state of Arizona.
- ▶ UArizona is one of 20 R1 universities also designated a Hispanic Serving Institution (HSI.) The annual designation is defined by the Higher Education Act as an institution of higher education with an undergraduate student enrollment of at least 25% Hispanic.
- ▶ UArizona is a space-grant university.
- ▶ UArizona has the only public medical school in the state of Arizona, with campuses in Tucson and Phoenix.
- ▶ UArizona has the only public School of Veterinary Medicine in the state.

In fall 2022, the University welcomed back to school its largest number of students, 51,109, of which 40,390 were undergraduates ⁽⁸⁾. The College of Engineering offers 16 undergraduate degrees in 10 departments. Across the entire University, Engineering was among the top three majors selected by the incoming freshman class. In fall 2022, the College – not including its degree programs in Optical Sciences and Biosystems Engineering, which are jointly administered – was home to 138 tenured/tenure-track and career track (teaching) faculty, 3,265 undergraduate students, and 746 graduate students.

Considering Broad Perspectives in Engineering

The practice of engineering requires a broad perspective to develop solutions to improve lives, learning and humanity.

As such, the College's DEI roadmap encompasses diversity as representation of a group by race, gender, ability, and socio-economic status. The National Science Foundation identifies underrepresented groups in engineering as women, Black/African American, Hispanic/Latinx, Native American/Alaskan, Pacific Islander/Native Hawaiian. The commonly used abbreviation for these collective groups is underrepresented minorities (URM).

Among the College's DEI priorities in the next three years is to build a faculty pipeline representing future students. The results of the 2020 census show that the majority of the 18-and-under population in Arizona is non-white. People who identify as Hispanic/Latinx or at least two races make up the majority of the under-18 population ⁽⁹⁾. We understand that many of our future students are looking for faculty with whom they can form career mentoring relationships.

The College's faculty demographics should reflect the student population. And the College aspires to have an engineering undergraduate student population that represents the demographics of the University undergraduate population. Beyond this, we intend for the demographics of our BS degree awardees to match that of our undergraduate population. The College aspires to see degree persistence and attainment through the doctoral level, with PhDs becoming faculty members, which brings us back to where we started: We want the College's faculty to represent its future students.

The cycle continues because diversity and representation of population change over time. Access to engineering degrees and careers enable social mobility and diverse solutions to important problems in society.

Diversifying Undergrad Population

Near term, the plan is to grow the undergraduate student population to be one of the top 50 colleges producing engineering BS degrees according to ASEE metrics ⁽¹⁰⁾. The College also aims to be a top producer of engineering BS degrees awarded to women and Hispanic/Latinx students.

The percentage of BS degrees the College presently awards to women (31.2%) is above the national average (23.6%). In fact, the College is about 30 degrees short of making the list of the top 50 institutions awarding degrees to women. Similarly, the percentage of BS degrees awarded to Hispanic/Latinx students is 20%, while the national average is 13.6%. The number of BS degrees conferred to URMs as a whole is on par with the top 50 institutions awarding degrees to URMs.

As the College grows and maintains this representation, these goals will be very attainable within the next three years.

► Faculty

UArizona Engineering leadership now has the most diverse representation in the College's history.

Half of the assistant and associate deans in the College are women. One-third of the College's department heads are female, and one is Latinx. To ensure a broadly diverse candidate pool, the College is actively recruiting from URM ranks for two department heads. Since 2019, the diversity of College representation in University leadership has also grown substantially. UArizona Provost Liesl Folks and Senior Vice President of Research Elizabeth "Betsy" Cantwell, both women, hold appointments in Engineering.

Since fall 2019, the College has hired 32 tenured/tenure-track or career track (teaching faculty). Women represented 37.5%. Two are Latinx, and one is Black/African American ⁽¹⁰⁾⁻⁽¹¹⁾. In fall 2022, the College had 138 faculty members in tenured/tenure-track and full-time teaching track faculty lines. Women represented 20.2% of the faculty, slightly above the national average of 18.5% ⁽¹²⁾. Five percent of the College's faculty identify as Hispanic/Latinx. The College has also recruited a senior Black/African American faculty member, Lehman Benson, as a courtesy appointment in the Department of Systems and Industrial Engineering, which oversees the degree program in Engineering Management. He is an expert in management and organization with a primary appointment in the University's Eller College of Management.



The Pipeline: Searches and Hiring

The College proposes to hire up to 85 new faculty members over the next five years. The hiring plan considers key strategic research areas and a certain level of attrition through retirements. This aggressive hiring plan is an opportunity for more equitable representation to better serve future students. The goal is to continue broadening the representation, recruitment and hiring of a diverse pool of candidates. The College has a successful strategy to recruit and hire women engineering faculty and will extend this lens to include more groups.

All search committees undergo a rigorous recruitment process that includes implicit bias training, accountability in recruiting a diverse pool, and several other practices that have proven to expand diversity in hiring. Committees report back to the College to ensure all search procedures are followed in a manner that attracts a more diverse pool of applicants. Search committees help one another by reporting their most effective practices to yield a diverse applicant pool.

Since our initial work in fall 2019, the UArizona Vice Provost of Faculty Affairs has outlined this rigorous protocol for campuswide faculty hiring. Thus, we now have a central resource for committees that provides information about processes and guidance for implementation. Much of the material on the Vice Provost's website is aligned with the UArizona findings as a result of our 2006 NSF five-year ADVANCE Institutional Transformation Award. In fact, the UArizona Vice President of Human Resources was the project manager for the ADVANCE award.

► Faculty (cont.)

The chair of each hiring committee works with the College to improve ways to diversify the applicant pool. This includes requesting diversity statements in job postings and inviting specific candidates to apply. The University's Associate Dean of Faculty Affairs and Inclusion works with College leadership to ensure search committees meet expectations – verifying completion of trainings, reviewing job postings, and assuring committees have diverse representation. Before candidates are invited to interview, search committees must report to the Dean and Provost the demographics of the final candidates. Search committees without diverse candidate pools are required to justify their recruitment efforts or seek out a broader candidate pool.



Search committee chairs have come to expect active recruiting approaches. Since 2020, UArizona Engineering has made use of the University's SPFI program⁽¹³⁾. SPFI is the Strategic Priorities Hiring Initiative that provides Provost-level support for hiring faculty members who advance the diversity and inclusive excellence mission of the institution. In 2021, UArizona joined a collaborative partnership with the University of California to offer postdoctoral fellowship opportunities as a way to recruit new faculty. This program is the President's Postdoctoral Fellowship Program (PPFP)⁽¹⁴⁾.

Additionally, the College in fall 2019 created a Faculty Hiring Handbook, which includes best practices in seeking a diverse candidate pool. The College also publishes a detailed job recruitment brochure for each position so candidates can see themselves as part of a larger team. In addition to details about the position, the brochure discusses the College's vision for growth, design program and faculty onboarding processes. It also provides information about living in Tucson.

In recruiting more underrepresented groups, the College will proactively and explicitly communicate the University's support for a diverse faculty. This will happen both in the job postings and during on-campus visits. Candidates will meet with the Associate Dean for Faculty Affairs and Inclusion, who is knowledgeable about University procedures, benefits and programs that support diversity and is positioned to draw in other members of the UArizona community to help with recruitment.

We note that many University and College programs focused on increasing diversity and inclusion are indeed appealing to nearly all faculty candidates. For example, one resource provides the spouses/partners of candidates with employment opportunities in the Tucson area, including within the University.

Retention: Mentoring, Professional Development, Equitable Workloads

The College launched in fall 2021 an extensive, multiyear onboarding program for new tenured/tenure-track and career track (teaching) faculty and shares information about the program during the recruitment process. The program was crafted in consultation with several leaders at other universities. Education leaders from Rose-Hulman University were among those who contributed excellent advice about faculty training.

During the first year, faculty meet with leadership twice a month and attend interleaved sessions on program management, budgeting for research proposals, crafting an effective course syllabus, managing graduate students, establishing inclusive classrooms and research labs, and building professional connections as a cohort. New faculty members are assigned mentors in their departments and encouraged to participate in peer observations of teaching.

In the second year, the group meets three times during the fall semester and three times during the spring semester. Second-year topics include how to market research, Academic Affairs policies, and procedures for working with the Development team.

Cohort meetings in the third through fifth years focus on developing strategies to spend start-up funds, recruiting and retaining graduate students, and preparing for promotion and tenure.

► Faculty (cont.)

The program enlists experienced assistant professors in engineering to lead the teaching sessions and share effective practices. The experience of faculty discussing common issues amongst themselves leads to lessons learned.

The College plans to track faculty success metrics as the onboarding program continues. We expect the program will improve faculty retention, professional identity and connections within the College and across campus. Some faculty members in the first cohort have already submitted team proposals for shared spaces and equipment.

The College has implemented several new processes for faculty equity. Dean Hahn established a two-course per year teaching load for tenure-eligible faculty. This is a one course reduction for the standard three-course teaching load per year for research active faculty. The course reduction helps new faculty focus on building their research programs and allows time for participation in the onboarding program.

The College also meets with faculty to inform them about family friendly policies at the University. While these policies help all faculty, they can be especially beneficial for younger faculty starting families and female faculty. One example is the Sick and Back Up Child Care Program. Another is the promotion clock delay. Delays can be requested for the birth or adoption of a child, to serve as a caregiver for a family member, bereavement over the loss of a child or partner, or adverse professional circumstances beyond an individual's control. During Covid, UArizona implemented the option for up to two delays to the promotion and tenure clock. UArizona also offered extra grader support for faculty in spring 2021.

The College will periodically review salary and workloads of all faculty members and identify areas for more equitable distributions. In fall 2020, the Provost's Office conducted a salary equity review of all tenured and tenure-eligible faculty ⁽¹⁵⁾. After consultation with the colleges, salary adjustments were implemented. Faculty were also given a chance to request reviews. In early 2023, a similar review will be conducted for the College's career track faculty.



The University and the College are supporting professional and leadership development for faculty. The College will continue these efforts and track participation and advancement of faculty. Dean Hahn and Provost Folks supported one of the College's Associate Deans in the ELATES at Drexel women in engineering and science leadership program ⁽¹⁶⁾. In 2023, the College plans to support new department heads to attend ELATES. The Provost sponsored two female faculty of color to join a workshop focused on faculty development and communities for female faculty of color. Dean Hahn is sponsoring faculty in the ASEE Delta project. One faculty member is attending the new faculty bootcamp offered by the National Center for Faculty Development and Diversity (NCFDD). UArizona is a member of NCFDD, and Engineering faculty members have unlimited access to the center's online programs and webinars ⁽¹⁷⁾. All faculty are made aware of this support. The College plans to continue supporting up to five faculty members a year in professional and leadership development programs.

The College also launched in 2022 its annual awards program for faculty, staff and students. Faculty are recognized for excellence in research, teaching and advising ⁽¹⁸⁾. Staff are recognized for leadership and innovation. Student awards recognize involvement in professional societies. A collegewide award for outstanding supporter of DEI is also given. The College plans to use its annual award submissions to help guide nomination for more faculty and staff for University and national recognition.

► Students

ENGAGED (ENGINEERING Access, Greater Equity, and Diversity) Program

In 2021 – with an initial \$187,000, two-year award from the Provost’s Investment Fund and a cost match from Dean Hahn – UArizona Engineering launched ENGAGED ⁽¹⁹⁾. The program focuses on recruitment and retention of underrepresented students in engineering, including those who are the first in their families to attend college, or who are from low-income households. ENGAGED is committed to connecting students with the tools and resources for success in their classes and careers ⁽²⁰⁾. The inaugural director, Noel Hennessey, holds a doctorate in higher education leadership and has conducted research on persistence of URMs in STEM.



The core suite enhances students’ academic success, sense of connection and community, and professional identity. ENGAGED encompasses summer bridge programs, facilitated study groups, scholarships and fellowships, positive self-efficacy programs, immersion experiences in faculty research, and targeted first-year and experiential learning programs. In addition, ENGAGED partners with various pre-college programs at the University of Arizona to support students’ access to the engineering profession.

ENGAGED incorporates three programs: Catapult, Summer TRACK, and REAL Work. A fourth program, ECATS, will be added in Summer 2023 ⁽²¹⁾.

The Catapult first-year experience provides students from underrepresented groups an immediate Wildcat Engineering community through linked courses, peer mentors, and exclusive opportunities to meet faculty and preview careers. Depending on math placement, Catapult students take two to four courses with a small group of peers during the fall semester of their first year. Linked courses include engineering, math, chemistry, and specially designed success/transition classes. Experienced UArizona Engineering students volunteer as mentors to guide Catapult participants through their first year. Mentors help students connect to clubs, academic support, and the #ENGRCat community. From shared meals to exclusive lab tours, events with Dean Hahn and professors give Catapult students early opportunities to form relationships with UArizona’s top educators and researchers.

Summer TRACK (Teaching Research and Career Knowledge) assists students starting their second year. Students take summer courses to stay on track in the Engineering curriculum. Participants may take Introductory Mechanics (PHYS 141) and Calculus II (MATH 129) together with a small group of peers, similar to Catapult cohorts. Students also take a Career Development course to learn about professional competencies and preview potential employers. Students who have completed Summer TRACK report having a stronger understanding of the careers they want to pursue. Students who are eligible to receive Pell Grants may have the remainder of their tuition and fees covered by the College of Engineering. Students who are ineligible for Pell can apply for scholarships after admittance to the program.



REAL Work (Research, Engineering Advocacy, and Leadership) provides paid research opportunities for undergraduates beginning in their sophomore year. Students complete research projects and showcase their work for youth considering STEM majors in college. REAL Work students collaborate with UArizona Engineering professors who guide their research. Students meet bi-weekly with ENGAGED staff to set and discuss goals and to reflect on their professional development. REAL Work students come together monthly to work on honing research skills, such as finding research articles, understanding abstracts, and explaining technical research to non-technical audiences. At the end of the academic year, they design research posters to present at a public session. REAL Work students do community outreach to inspire high school students to learn more about engineering and get better prepared for the engineering curriculum. They also attend leadership training and may propose their own outreach efforts.

The program has helped students advance toward their engineering degrees, and as anticipated, building connections has been key to their success in the program.

► Students *(cont.)*

ENGAGED has exceeded its initial participation and retention goals. In 2021, Catapult had 50 students; in 2022, 70 students. Summer TRACK enrolled 11 students in 2021 and 22 students in 2022. REAL Work had six students in 2021 and 16 students in 2022. In 2021, the REAL Work program included two students from the Florida HBCU, Bethune-Cookman. ENGAGED now has 10 peer mentors, and the number of faculty sponsors is increasing. All of the 33 students enrolled in Summer TRACK remain in engineering, and they are advancing through foundational courses such as calculus and physics with primarily A and B grades. Pell recipients in Catapult persisted at a statistical higher rate than Pell recipients who were not in Catapult. The GPAs of Catapult students were better than their non-Catapult peers in the first year.

Growing ENGAGED

In summer 2023, ENGAGED will start a new ECATS program for incoming students. ECATS is an asset-based program focused on math readiness, engineering identity and sense of belonging, and career excursion. The program is formulated to help students cultivate math skills and prepare for the prerequisite science classes needed to study engineering. ECATS will partner with the UArizona New Start program to provide a smooth, comprehensive transition to the University the summer before the first year of college ⁽²²⁾. ECATS also provides programming similar to Summer TRACK in which students learn from engineers about careers in industry.

In the next three years, we expect to grow ENGAGED from 108 students in 2022 to 250 students a year. Funding from donors and grants is key to sustaining ENGAGED and serving these students. In 2022, the College's Development team raised over \$30,000 in external funding to support the Forever ENGAGED endowment. These funds, plus gifts from corporate donors, supported tuition for some Summer TRACK students and paid internships in REAL Work.

ENGAGED also plans to grow the number of faculty partnerships and the students involved in paid internships. In 2022, more than a dozen UArizona Engineering faculty members provided paid internships for Real Work students. Our vision in the next three years is to grow this to 36 faculty members offering paid Real Work or Summer TRACK experiences. This will be accomplished by creating partnerships with newly hired faculty. We have a framework to build undergraduate research funding into federal proposals such as NSF CAREER Award submissions, NSF supplements, and to partner on scholarship and training grants such as the NSF IUSE and NSF S-STEM grants.



In 2022, the ENGAGED director was a co-PI on an IUSE and an S-STEM planning grant. The director also worked with several new faculty members on crafting the broader impacts part of their NSF proposals – providing guidance and a framework for faculty PIs to build in the necessary funding to support students in research. We also have a few REUs for which ENGAGED helps find suitable participants.

ENGAGED excels at identifying students who will benefit the most from paid internships. The program provides an entire support structure, peer mentoring and connections to help keep at-risk underserved students in Engineering majors.

Student Professional Organizations

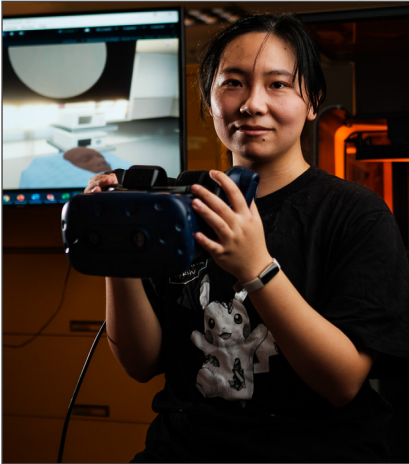
The College of Engineering has several student-run societies associated with strong national organizations that support diversity and inclusion. Among them are the National Society of Black Engineers (NSBE), Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS), Society of Hispanic Professional Engineers (SHPE), Society of Women Engineers (SWE), Women in Engineering Programming Board, and Women in Optics. These societies include professional and peer mentoring programs and outreach components ⁽²³⁾.

SWE's peer mentoring program, for example, places students in small groups of three to five, which typically include a freshman, sophomore or junior, and a senior or graduate student. Mentoring happens on multiple levels with students serving as mentees and mentors within a given group. In addition to monthly society meetings, each group of mentors and mentees is encouraged to meet on its own.

► Students *(cont.)*

Recruiting Underrepresented Minority Undergrads and Female Graduate Students

Engineering Ambassadors help engage diverse groups in recruiting efforts. The College recruits students through a number of pathways, including the ASEMS (Arizona Science, Engineering, and Math Scholars) program and the University's 100% Engagement Initiative ⁽²⁴⁾. Students also get opportunities for hands-on design activities. For example, the College runs several NSF REU (Research Experiences for Undergraduates) programs and a Summer Engineering Academy (SEA) for high school students ⁽²⁵⁾.



UArizona Engineering is home to transfer students from many institutions across the state and throughout the nation. The College's advising teams include specialists for transfer students, and the University's Transfer Pathways Agreements outline degree pathways for Pima Community and Maricopa Community colleges.

UArizona participates in the CONACyT program, which provides co-financed, five-year fellowships for doctoral students. The partnership gives highly qualified students from Mexico funding to complete their PhD studies at the University of Arizona.

In 2022, the College submitted names as part as the University of Florida Engine program and encouraged graduate student recruiting committees to reach out to the Engine resources. The plan is to track how using databases such as this help recruit underrepresented groups for PhD studies.

The UArizona Graduate College staffs an Office of Diversity and Inclusion, which provides services in the areas of policies, funding and professional development. The College's graduate advisors will work closely with the Graduate College to promote these resources.

Additionally, in 2021 and 2022, the College added social activities and community building to help female graduate students connect with one another. One activity in fall 2021 brought together female PhD students to discuss factors that impact persistence. In May 2022, the College held a summertime planning activity to help students stay productive and on track with graduation.

► Advisory Committees

In 2022, the College's ENGAGED director and Associate Dean for Faculty Affairs and Inclusion convened a DEI advisory committee. The committee is made up of faculty within Engineering and University faculty who are experts in DEI. Student leaders from engineering clubs such as SWE (Society of Women Engineers), SHPE (Society of Hispanic Professional Engineers), and NSBE (National Society of Black Engineers) are an integral part of the committee. Representatives from the College's Marketing and Communications, Academic Advising, and Student Recruitment teams also serve on the committee. Several directors of DEI-related offices on campus are involved to advise on alignment with University initiatives. The DEI Advisory Committee meets at least twice a semester to review plans and provide input on collaborating with other offices at UArizona. The committee will monitor and review relevant statistics, including summer bridge programs, ENGAGED, scholarships and fellowships, asset-based self-efficacy development programs, targeted first-year programs, and targeted experiential learning.

The Dean's Advisory Board (DAB), which meets once a semester, also has a DEI committee. The DEI group – including industry representatives and leaders from the Arizona Technology Council, Intel and Ball Aerospace – reviews activities and provides recommendations. Two DEI members own their own companies in Arizona, and one is a UArizona Engineering alum who worked for many years in the energy sector. The College plans to expand the DEI group to work with other DAB committees, such as engineering and workforce development and research.

► External Grants

Since 2019, the College has expanded its DEI programs to help improve engineering success. We are keeping track of these programs and providing researchers assistance in grant and proposal writing. Many of these contracts or grants involve funding for student participation. Following is a sampling of these contracts and grants:

- ▶ Collaborative Research NSF INCLUDES Alliance: Broadening Career Pathways in Food, Energy, and Water Systems with and within Native American Communities (Native FEWS Alliance); PI – Karletta Chief, Co-PI – Kelly Potter; Start Date – 08/01/2021; Award Amount – \$1,422,422; NSF, Division of Human Resource Development
- ▶ Collaborative Research HSI Implementation and Evaluation Project: Transfer Students’ Success in Quantum Information Science and Engineering; Co-PI – Boulat Bash; Start Date – 04/15/2022; Award Amount – \$733,397; NSF, Division of Undergraduate Education
- ▶ STEM, Growth Mindset, and Sports: Investigating STEM Program Design Features That Impact Youth Engagement; PI – Ricardo Valerdi; Start Date – 09/01/2020; Award Amount – \$1,898,740; NSF, Division of Research on Learning in Formal and Informal Settings
- ▶ Walking Together to Increase Participation of Students from Underrepresented Groups in Engineering; PI – Kimberly Ogden, Co-PI: Noel Hennessey; Start Date – 02/01/2022; Award Amount – 150,000; NSF Division of Undergraduate Education
- ▶ Cybersecurity Scholarship-for-Service Renewal at the University of Arizona: The AZSecure SFS Program; Co-PI – Salim Hariri; Start Date – 08/01/2019; Award Amount – \$2,445,818; NSF, Division of Graduate Education
- ▶ HSI Implementation and Evaluation Project: Building Paths to Civil Engineering Student Success; PI – Kevin Lansey, Co-PIs – Noel Hennessey and Dean Papajohn; Start Date – 01/01/2023; Award Amount – \$499,730; NSF, Division of Undergraduate Education
- ▶ Contextualizing Asset-based Approaches in Undergraduate Engineering Design Education: PI: Hannah Budinoff, Co-PI Vignesh Subbian; Start Date – 08/01/2022; Award Amount – \$300,000; NSF, Division of Undergraduate Education
- ▶ Addressing Demographic Disparities in Students Choice of Engineering Disciplines (ADDS-CoED): PI – Isabel Barton; Co-PI –Justine Schlutz; Date – 04/01/2022; Award Amount – \$454,335; NSF, Division of Engineering Education and Centers

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