



TUEE Collaboratory

*Transforming Undergraduate Education
in Engineering (TUEE)*

The University (TU)

Student-Centered Professional Practice Learning (SCPPL) Initiative

Founding Strategic Corporate Partner Investment Guidelines

Demonstration Model Applicable Fees as of March 23, 2025, through June 2026 - DRAFT

The University (TU) invites (Name of Company) to become a founding Strategic Corporate Partner (SCP) in a two-year pilot project designed to transform undergraduate education in engineering and computing (TUEE). The project aims to address the longstanding 'skills gap' by ensuring that all engineering and computing students graduate ready to enter their chosen workplaces as practicing professionals.

TU is evaluating an invitation from the [TUEE Collaboratory](#) to be the founding lead university in creating national and Gulf Southwest regional transformation models. During the Start-up Phase before June 1, 2025, TU and its SCPs will assess the feasibility of starting a small demonstration pilot for the 2025-2026 academic year, with full implementation of the proposed comprehensive pilot completed by June 2027.

Starting the week of March 24, 2025, several additional West and Southwest universities will be invited to be members of the TUEE Collaboratory nationally and to begin establishing a regional Collaboratory aligned with the ASEE sections. Up to four regions—Gulf Southwest, Pacific Southwest, Pacific Northwest, and Rocky Mountain states—could be established by June 2027. Each of these universities will invite their own set of SCPs and begin their Start-up/Development Phase during early fall of the 2025-2026 academic year, then implement their full comprehensive pilot programs in AY 2026-2027.

Three primary transformative features of the TUEE Collaboratory include:

- The initiative is designed to close the longstanding "skills gap" by accelerating the development of new engineering and computing graduates into practicing professionals prior to graduating. It promotes a student-centered, team-based project and program learning environment throughout undergraduate education.
- A key aspect of the initiative is aimed at addressing the persistent challenge of insufficient faculty numbers for student-centered, team-based problem solving and project learning. All large universities face an ongoing shortage of faculty to coach, mentor, and provide domain expertise to students engaged in various projects and activities throughout their undergraduate education. By establishing informal alumni chapters with each Strategic Corporate Partner, TU alumni can offer the necessary mentoring and technical expertise to complement faculty efforts. This arrangement allows faculty to concentrate on teaching theoretical concepts and conducting research, while alumni provide guidance and support for student programs and sponsored projects. Furthermore, alumni financial contributions frequently benefit from corporate matching programs offered by SCPs, creating a sustainable revenue stream to enhance undergraduate education in engineering and computer science in the long term.
- Another key aspect of the initiative is its financial self-sustainability from the start, without the need for start-up NSF or other Federal grants, through the development phase (AY 2025-2026), full pilot implementation (AY 2026-2027), and beyond.

The American Association for Engineering Education's NSF-funded study, launched in 2013, aimed to transform undergraduate engineering education. The TUEE Collaboratory is currently the only imminent transformation model, with no other comprehensive models expected soon.

Founding Strategic Corporate Partners (SCPs) are requested to consider an investment of at least \$90,000 for the Start-up/Development Phase and Demonstration Model pilot at TU through June 2026. SCPs are encouraged to arrange for making contributions at any time for any programs at rates noted in the following list: The required initial SCP investment of \$49,000 includes:

- **Student-Centered Professional Practice Learning (SCPPL)** - \$10,000 will be allocated for general support of the initiative as a recognized founding Strategic Corporate Partner (SCP). During the Start-up phase through June 1, 2025, up to 50% of this investment will be directed toward stipends for student leaders to establish this part of the initiative promptly. Additional funding for general support will be at the discretion of each SCP.
- **Four-year Team-based Project Design Experience** – A key element of the proposed TUEE Collaboratory transformational model is the implementation of a comprehensive four-year design experience (“the design spine”). During the TU demonstration model (2025-2026), \$15,000 will be allocated for a full year, two-semester senior team-based sponsored capstone design project. During the academic year 2026-2027, the expected best practice sponsored senior design (capstone) project fee is anticipated to be about \$30,000. An additional \$7,000 will be allocated to a third-year one-semester sponsored design project introduced in the Spring of 2026. Introduction of second and third-year design projects at TU and partner community colleges will be carried out during the comprehensive pilot's full implementation throughout the 2026-2027 academic year.
- **SCPPL Governance Action Councils** – \$2,000 allocated to the Student Professional Practice Council (SPPC). Additional funding may be provided to the Faculty Professional Practice Council (FPPC), Professional Practice Executive Council (PPEC), and student chapters of professional societies and diversity organizations such as ACM, ASME, BMES IEEE, MAES, NSBE, SHPE, and SWE at TU.
- **Transfer Scholars Program (TSP)** – \$6,000 would be allocated toward first-year scholarships for tuition and fees. TSP scholarships are available for up to 2½ years per transfer scholar. SCPs will provide paid summer internships in 2026 before fall enrollment. Transfer Scholars Finalists can request interviews for these internships. Each new TSP scholar will have a student peer mentor and an SCP alum professional mentor to establish a professional development team for the fall semester.
- **Enriched Learning Program (ELP)** – \$2,000 in concert with TSP, ELP will focus on the development of enhanced learning opportunities for high-potential low-income and disadvantaged students in addition to coaching and mentoring involving alumni.
- **Intrapreneurial Program (IP)** – \$2,000 will be allocated for this program that promotes an entrepreneurial mindset and design thinking within existing organizations. The Intrapreneurial Action Team (IAT), formed by the PPEC in fall 2025, will include representatives from faculty, students, SCP, and alumni from local chapters of national professional societies and diversity organizations. The aim is to prepare engineering and computer science majors with a minor or certificate in intrapreneurship for careers in new product design and development. Additional funding will be at the discretion of each SCP.
- **Team Internship Program (TIP)** will begin in summer 2025, with \$2,000 allocated for development and oversight. Inspired by UC San Diego’s summer [Team Internship Program](#), TIP will have teams of four or five rising seniors working as paid interns on real problems for actual customers. This experience will prepare them for enhanced senior design projects in the 2025-2026 academic year at TU.
- **Innovations in Career Development and Employment** in collaboration with the TU Career Center - \$2,000 to the TU Career Center with additional funding at the discretion of the sponsor.
- **Alumni Chapters** – By fall 2025, an informal TU alumni chapter will be established with each SCP to facilitate alumni involvement in coaching and mentoring students across various projects and programs.
- **Student Professional Practice Scholars (SPPS)** – By June 1, 2025, the first cohort will include about 40 third-year computer science and engineering students (rising seniors) with at least a 3.0 GPA, meeting standard scholarship and internship requirements. Third-year students would become involved early fall semester 2025.
- **Student Organizations** – SPPS students are members of eight professional or diversity organizations at TU: ACM, ASME, BMES, IEEE, MAES, NSB, SHPE, and SWE. Each SCP is encouraged to support these organizations.

- **Day on Campus with Strategic Corporate Partners (DCSCP)** – \$2,000 will co-sponsor the February 2026 DCSCP event, organized by the Action Councils and their respective Action Teams. Sponsorship levels will be determined before each event.

The TUEE Collaboratory model offers a flexible framework that facilitates students, alumni, and employers, including executives, to collaborate with TU faculty and administration to enhance undergraduate education in engineering and computing (TUEE). Additionally, the proposed initiative suggests that a comprehensive pilot could be implemented by several large universities across various regions of the country by June 2027.

© 2025, Corporate & University Relations Group, All Right Reserved.