



TUEE Collaboratory
*Transforming Undergraduate Education
in Engineering (TUEE)*

The TUEE Collaboratory Model

A Summary of Unique and Innovative Features

Updated April 14, 2024

The University would *engage its own alumni* as the source of practicing professionals to develop, then implement the proposed comprehensive TUEE Collaboratory model pilot through June 2026. The University recognizes that faculty and staff at a major, large university simply lack the numbers required to provide proper coaching and mentoring for the various programs, projects, activities events required to implement student-centered active learning throughout the undergraduate experience *for each student*. Alumni chapters would be established with each local Strategic Corporate Partner during the AY 2024-25 Development Phase of the project to enable the proper support to be provided.

Student-centered Professional Practice Learning – would feature team-based, open-ended problem solving and project learning involving real-world situations, often with real customers and real potential employers throughout the undergraduate experience.

Design spine – with at least one signature team-based design project each of the four years, including industry sponsored third year (one semester) and fourth year (full-year) best practice senior design projects. Design thinking and entrepreneurial/intrapreneurial mindset would be integrated *throughout* the undergraduate experience. Third year sponsored design projects would be introduced spring 2025 during the Development phase and full-year best practice senior design (capstone) projects would be introduced during full implementation of the comprehensive model pilot AY 2025-26.

Transfer Scholars Program (TSP) – high-potential transfer students would be awarded full-tuition scholarships in early February 2025. Each finalist would have the opportunity to interview for an internship with Strategic Corporate Partners (SCPs) for the summer prior to AY 2025-26 as an incoming student. A peer Student Professional Practice Scholars (SPPS) member would mentor each new TSP scholar throughout the fall term 2025.

Intrapreneurship Program – uniquely places *emphasis on applying an entrepreneurial mindset and design thinking to intrapreneurial activity*, i.e., being entrepreneurial within the context of an existing organization. Finally, engineering and computer science majors with a minor or certificate in intrapreneurship, *fully prepared to enter a career in new product design and development* within an existing organization.

A five-page overview of the entire two-year project is available by going to the CURG under construction website at www.curg.net, and click on the TUEE Comprehensive Pilot link. The adjacent Strategic Corporate Partner (SCP) Investment Guidelines link goes to a two-page description of funding provided by SCPs to more than cover the costs of the AY 2024-25 Development Phase. The entire program is designed to be self-sustaining from the get-go, through the implementation of the pilot in AY 2025-26 and scaling it beyond.