

Work-in-Progress: The Development of a Co-Taught Student Success Course for Freshmen

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WIP: The Development of a Co-Taught Student Success Course for Freshmen

Course Creation

In the fall 2018 semester The University of Texas at Arlington (UTA) began teaching a first year experience course for all students entering UTA with fewer than 24 credit hours. The course was a response to lower than desired retention rates for first year students. Nearly 800 students who were in their first year of college at UTA did not return for their second year. Of those, 50% were in good academic standing. In surveys researching why these students chose not to return, 80% of the students indicated that “connectedness (sense of belonging)” contributed to their decision to leave UTA. UTA had a goal of increasing the number of student interactions with faculty.

A uniform, one credit-hour, two-contact hour Student Success course was implemented, across campus, to combat these issues. The course aimed to incorporate faculty interaction into a uniform course and focus content on students’ integration into their Schools/Colleges. All programs were asked to add this course to their programs, without increasing the total number of credit hours of their degree plans. The College of Engineering (COE) at UTA assembled a team of faculty members, representing each of the COE departments, to develop the content for the course and to find one credit hour in all degree plans into which to fit the new course.

Content Development

Each College/School at the University developed a portion of the content for the course that would be taught by faculty from the College or School. The other portion of the content was standardized by the Division of Student Success (DSS) and taught by a Peer Academic Leader (PAL). Colleges and Schools were given a choice of the percentage of class time that would be used to cover discipline-specific content. This portion could be anywhere from 10% to 50% of the total available class time. The COE opted to delegate the maximum 50% of the course content to engineering-related topics. In most sections of the course, the two contact hours were taught on different days, with the engineering instructor attending only one day/week and the PAL attending both days. The COE and the School of Social Work were the only two academic units to choose to be responsible for the maximum amount of content. Colleges and Schools were required to provide faculty for 25-student sections to deliver the discipline-specific content. The learning objectives for UNIV 1131 and their origins are shown in Table 1.

The COE committee developed course content for fifteen 50-minute class periods to cover the proposed learning objectives. All class periods were designed to include active learning student participation. A course materials packet was developed for each class period. The packet included daily learning goals and objectives, class preparation tasks, lecture notes and slides, active learning exercise instructions and materials, and assessment instructions.

The committee believed that standardizing a course packet for each class period was necessary given the COE would be responsible for 35 sections of the course in the first semester it was offered. The hope was that the packets would help keep the many faculty who volunteered to teach one or more of the sections on the same page regarding the goals of the course. The

committee also insured that there was opportunity for each faculty member to interject his or her own experiences, passions, and personalities into each class period. The course periods delivered by COE faculty and a short description of the active learning portion of the course is shown in Table 2.

Table 1: UNIV 1131 Course Learning Objectives

Learning Objectives	Origin
1. Recognize and utilize the various academic and personal student resources available at UTA, including those related to financial literacy and wellness.	University
2. Apply various learning and study strategies to their college classes.	University
3. Recognize the unique characteristics of their major, including relevant co- and extra-curricular opportunities, and understand the significance of that discipline in today's world.	University
4. Identify the role of faculty as experts in providing guidance in academic planning, experiential learning and career goals related to the student's major.	University
5. Develop a sense of self-awareness through teamwork and collaborative efforts.	University
6. Work in multi-disciplinary teams.	College of Engineering
7. Explain the basis for and importance of engineering ethics.	College of Engineering
8. Describe the different engineering disciplines.	College of Engineering
9. Develop an engineering entrepreneurship mindset.	College of Engineering

Lessons Learned

UNIV 1131 was taught for the first time in the fall 2018 semester. Over 1000 students were taught in 35 sections. The class meetings included the content generally described above and, in particular, devoted three class periods to departmental presentations and were given three class days dedicated to design work for their team projects.

Of the 35 engineering sections, UTA faculty taught 23. UTA drew from its strong industry partnerships to support the remaining sections. Working engineers in the DFW area volunteered to come to campus to teach 12 sections of the course. These were some of the most successfully executed sections of the class. The working engineers were excited to have an opportunity to interact and share their experience with freshman engineers. They did an especially good job of pointing out the “real-world” interdisciplinary nature of engineering. The students, in turn, appreciated getting to know and hearing the experiences of working engineers.

Table 2: UNIV 1131 COE-Delivered Class Periods

Course Content	Active Learning Exercises
NAE Grand Challenges	Guess the Grand Challenge
Teamwork	NASA Survival on the Moon Exercise
Engineering Entrepreneurship	Smart City Brain Writing Activity
Departmental Presentations	Question and Answer Session with Students and/or Faculty from each Engineering Department
Engineering Ethics	Case Study Discussions in Small Groups
Introduction to Design	Small Group Project Work and Student Presentations
Reflection and Going Forward	Individual Semester Reflections

The intent of the COE course designers was that each section of the class contain students from a mixture of disciplines. It was even hoped that students could be grouped by extra-curricular interests, e.g., soccer, Anime. The DSS cohorted students into Learning Communities (LC) which meant scheduling the same 25 students in 3 classes together, with one of these LC classes being within the student's major. Practical considerations forced a grouping by schedules, which tended to mean grouping by intended major. For the next fall, math will be one of the LC courses, so grouping by math level will be used which should have the desired effect of mixing disciplines.

Most faculty were grateful for having the class packet available. A few taught from that material with almost no variation. The most frequent feedback was that instructors were using this content as a basis and then elaborating from his/her own experience, exactly as intended.

The most difficult learning objective to fulfill was perhaps "Describe the different engineering disciplines". The intent was for students to learn about each potential major in general but also to know something of how that major would be accessible to the student at UTA. As a result, the course organizers decided to give each department the autonomy to present its view of its undergraduate major. Most departments elected to pre-record some material or prepare slides, which could serve as a basis of the presentation, and combine this with a live presentation by a faculty member or student from that department. Given that there were 35 sections of this course offered throughout the course of the week made scheduling of these presentations non-trivial. Overall, it was remarkably successful, but the search is on for improvements in this segment of the course for the next semester.

The fact that many classes were so heavily weighted toward one major led to the feeling that the class was "checked out" when it wasn't their major being presented. The class instructor had a major impact on mitigating this effect. When the instructor was engaged with the presenter and pointing out interesting issues, the students stayed engaged, regardless of declared major.