



Exemplary Student Pathways

An initiative of The University of Texas System

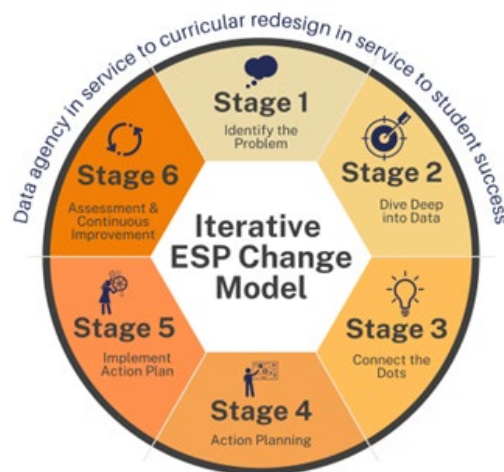
ESP Institutional Project Profiles

Following are project profiles for the 22 *Exemplary Student Pathways (ESP) Projects* conducted by the UT System's nine academic institutions between January 2022 and July 2024. The *Exemplary Student Pathways Project* uses powerful data and a proven change model to redesign curricular pathways to support students in completing degrees at UT System institutions. The ESP Change Model centers data agency and curricular redesign as levers of change to remove barriers to student success and gaps in student outcomes.

The project profiles cover eight projects in Phase 1 (2022), five in Phase 2 (2023), and nine in Phase 3 (2024), all of which included project cohorts or teams who went through the structured six-month ESP process of data discovery, dot connecting, and action planning guided by facilitation and data support from the UT System Offices of Academic Affairs and Institutional Research & Analytics.

Captured in a poster template, the project profiles include project phase and name, goals, team members, metrics and data, lessons learned, and outputs and outcomes from the action plan at the time of submission. The profiles also include a selection of accomplishments to date up to May 2025.

While offering just a snapshot of the work conducted by ESP project leads and teams, the profiles demonstrate the commitment, creativity, and capacity building engaged in by 22 distinct ESP cohorts on behalf of their students.



ESP= Exemplary Student Pathways

University of Texas at Arlington

Phase 1 Project: Enhancing the Conversation with Faculty of High Enrollment, High DFW Rate Courses



PROJECT GOALS

This project seeks to address gaps and improve the pass rates (grades of A, B, or C) in several high enrollment, introductory courses to ensure students can achieve success early and remain on path to timely degree completion. By addressing gateway courses with enrollments totaling more than 2,200 per semester and high drop and failure (DFW) rates, this project hopes to positively impact student retention and graduation rates, ensure that access remains a priority for our institution, and provide academic support resources for students sooner.

TEAM MEMBERS

- **Ashley Purgason (Team Lead)** – Associate Vice Provost for Student Success, Office of the Provost
- **Minerva Cordero** – Interim Vice Provost for Faculty Affairs and Professor College of Science
- **Funda Karapinar-Reilly** – Director, University Analytics
- **Lynn Peterson** – Senior Associate Dean for Academic Affairs and Professor, College of Engineering
- **Laura Mydlarz** – Associate Dean for Academic Affairs and Professor, College of Science
- **Amber Smallwood** – Assistant Vice Provost for Academic Planning and Policy, Office of the Provost
- **Ram Venkataraman** – Department Chair and Professor, College of Business

METRICS AND DATA

- **Enrollment and DFW rates** – identify gaps by student demographics and select specific courses to focus on.
- **Disaggregated admissions data** – incoming student demographics, admissions category (conditional vs. unconditional), test scores, HS GPA, etc.
- **Civitas course data** – how a passing grade in a specific course impacts student progression.
- **Disaggregated retention and graduation rates** – longer-term outcomes and gaps by student characteristics.
- **Learning management system data** – tracking early student engagement in coursework.
- **Civitas Inspire for Faculty** – tracking early student engagement in coursework.
- **UT System Dashboards** – DFW rates and enrollment overviews.

ACCOMPLISHMENTS TO DATE

1. Culture Change

The Department of Accounting redesigned an introductory course to include more application and real-world scenarios as well as structural changes like exam retakes.

2. Strategic Alignment

UTA designed an admissions pathway for conditionally admitted students that was coupled with dedicated staff support resources.

3. Stakeholder Engagement

The Office of the Provost launched a permanent program for an annual faculty fellowship in student success.

4. Sustainable Resources

Permanent resources were allocated to expand peer-led team learning in high drop and failure courses with large enrollments (e.g., Intro. Engineering and Chemistry).

LESSONS LEARNED

- The vast amount of data available both internally and through UT System for this work was overwhelming at times. Members struggled to consume the data due to lack of time.
- Greater faculty involvement in this project from those teaching the courses is extremely important.
- Faculty need to be provided with consumable and readily accessible data related to students' outcomes in courses.
- Conversations centering around DFW rates are not as helpful as conversations about enhancing student success.
- There is a need for dedicated resources to support the action plan developed for this project. Faculty participants will require time and/or funding to contribute fully.
- An emphasis was placed in the original proposal on retention and graduation rates. While these metrics are important and should continue to be shared, they are lagging indicators of any improved success we may see in the courses and do not directly measure any enhancements made there.
- Overall, DFW rates in the courses are also important. However, disaggregating the DFW rates and longer-term metrics – like retention to empower faculty with more granular information about the outcomes of the courses – will be a key action item moving forward.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Peer-Led Team Learning (PLTL) was rolled out at UTA in Fall 2021 showing immediate improvements in outcomes in gateway courses.
- Identified students who are likely to face academic challenges in the admitted class of FTIC and has built out support services to help them succeed.
- Restructured some of the high DFW classes to have smaller breakout sessions to help students get personalized attention to help them succeed.
- Planned the development of data dashboards for faculty that can be accessed on demand.
- Planned the formalization of faculty mechanisms to participate in this work in collaboration with the Office of the Provost, including the creation of a toolkit for faculty of best practices and resources (i.e., peer-led team learning, The Center for Research on Teaching and Learning Excellence, etc.), developed by a faculty fellow, and allocating an annual budget toward this work through the Division of Student Success.

Phase 2 Project: Enhancing the Student Success Conversation with Faculty of High Enrollment, High DFW Rate Courses

PROJECT GOALS

UT Arlington is seeking to improve the pass rates (grades of A, B, or C) in several high-enrollment, introductory courses to ensure students achieve success and remain on track for timely degree completion. By addressing gateway courses with enrollments totaling more than 2,200 per semester and high drop and failure (DFW) rates, we hope to positively impact student retention and graduation rates, ensure that access remains a priority for our institution, and provide academic support resources for students sooner.

TEAM MEMBERS

- **Ashley Purgason (Team Lead)** – Associate Vice Provost for Student Success, Office of the Provost
- **Pranesh Aswath** – Senior Vice Provost for Academic Planning and Policy
- **Funda Karapinar-Reilly** – Director, University Analytics
- **Laura Mydlarz** – Associate Dean for Academic Affairs
- **Amber Smallwood** – Assistant Vice Provost of Academic Planning & Policies
- **Carter Tiernan** – Assistant Dean, College of Engineering
- **Ramgopal (Ram) Venkataraman** – Department Chair & Professor of Accounting
- **Melissa Walsh** – Associate Chair, Biology

METRICS AND DATA

- **Enrollment, DFW rates (disaggregated)** – To identify student success gaps and select specific courses to focus on.
- **Admissions data (disaggregated)** – Awareness of students’ incoming demographics, characteristics, admissions category (e.g. conditional vs unconditional), test scores, HS GPA, etc.
- **Policy reviews** – Several policies have been or are being examined recently for impacts on student success including the drop for non-payment, academic probation, etc.
- **Civitas courses data** -- Quantitative insight into how a passing grade can impact student progression.
- **Retention and graduation rates (internal and for aspirational peers); (disaggregated)** – Longer-term outcomes to further identify student success gaps.

ACCOMPLISHMENTS TO DATE

1. Culture Change

The Department of Biology transformed an introductory course as a team, improved pass rates considerably, and have shared their process with other departments.

2. Strategic Alignment

Peer-led team learning was incorporated into introductory Accounting courses with large enrollments and high drop and failure rates.

3. Data Infrastructure & Agency

The work resulted in a project to democratize data to all faculty every semester about the enrollment make-up of their course(s).

4. Assessment & Continuous Improvement

The Office of the Vice Provost for Academic Affairs and the Vice Provost for Student Success jointly provided resources to create local instances for the Curricular Analytics Project in order to engage a broader audience in the work. A group of faculty fellows developed a roadmap for the use of curricular analytics in degree program review as well as other initiatives.

LESSONS LEARNED

- We learned to have a more narrowly defined project in the future and to focus our work in a more localized fashion (i.e., at the department level). Attempting to discuss 5 different courses became unwieldy. The reasons for high DFW rates in one area may be or are different than the reasons for high DFW rates in another department or course.
- Learned to look to our departments to model the way for this work for others. Once we shifted to highlight the work that our academic colleagues had already done to tackle high DFW rates in their departments, we were able to develop ideas based upon their work that we felt were actionable, that could be sustainable, that would impact other departments positively, and that could be applied to any department’s local context.
- Shifting our work away from the negative perceptions around high DFW rates and toward the concept of enhanced understanding of success across student groups among faculty was important.
- Several stakeholders participating in this work have voiced the need for dedicated resources to support the action plans.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Advancing the Curricular Analytics Project hosted by UERU to create a process to socialize and analyze the generated information with academic departments.
- Amplifying student voice was the key action item for UTA that was emphasized to a greater extent in phase 2 than in phase 1. The group discussed the need for faculty to hear directly from students about their expectations, experiences, and perceptions in order to enhance understanding of student success among faculty and belonging among students.
- Emphasize engagement at the level of Chair in sustaining the conversations related to addressing gaps in student success through curricular enhancements.
- Democratization of data to faculty related to student demographics by creating a short set of information for faculty with this information (approximately 1 page) that can be provided to them via email or in Canvas.
- Expand peer-led team learning to make key academic support efforts more accessible to more students.
- Creation of toolkit of best practices and resources for faculty, professional development opportunities.

University of Texas at Arlington

Phase 3 Project: Reexamining Curriculum and Student support for English and Math Developmental Education



PROJECT GOALS

The number of students that are placed into developmental education has grown by more than 300% at UT Arlington in the years following the pandemic. Most of these students are first-time-in-college, at higher risk of attrition according to historical data and predictive modeling and include a disproportionate share of racial and ethnic minorities, late enrollees, Pell recipients, and conditionally admitted students. This population of students also face longer time-to-degree and may be leaving with institutional debt at rates higher than comparable populations. UT Arlington’s project will do a deep dive into understanding this population, including student experiences in developmental education courses and curricula. The project will examine and re-envision the curriculum and student support related to developmental education, including the staff, faculty, financial, and other resources.

TEAM MEMBERS

- **Ashley Purgason (Team Lead)** – Vice Provost for Student Success, Office of the Provost
- **Laura Boddicker** – Lecturer, Mathematics Department
- **Deysi Delgado** – Lecturer, Mathematics Department
- **Esteban Diaz** – Assistant Professor of Instruction, Mathematics Department
- **Laura Holm** – Coordinator III, Mathematics Department
- **Adriane Jones** – Director, Student-Ready Initiatives
- **Justin Lerberg** – Director of First-Year Writing, English Department
- **Jo Ward** – Specialist, English Department

METRICS AND DATA

- **Multiple Measures pilot data** – to determine if we should further advocate for state rule change and to determine NCBO options.
- **TSI dashboard** – UTA’s dashboard that shows trends year over year related to TSI status and more.
- **THECB info on NCBO requirements** – Showing the range of options available for NCBO compliance to adjust practices and ensure full compliance.
- **UT System Communities of Practice promising practices** – Benchmarking to best practices across UT System.
- **UT System Dev Ed dashboards** – Comparing student data to peers across UT System, including information about high school feeders, student characteristics, dev ed repeaters, toxic combinations of courses, etc.

ACCOMPLISHMENTS TO DATE

1. Culture Change

Developmental Education enhancement meetings now occur weekly between faculty and staff.

2. Strategic Alignment

Improving course completion rates through capacity building and examination of all the aspects of curriculum (content, pedagogical, structural, and operational) is now captured in the University’s student success strategic plan.

3. Stakeholder Engagement

Multiple faculty are now invested in Developmental Education and are participating in the Student Experience Project as well.

4. Sustainable Resources

Academic departments have designed and received approval to deliver enhanced NCBO experiences for students, providing a more tailored learning opportunity.

5. Assessment & Continuous Improvement

Permanent staff in a new position of Student-Ready Advisor are being hired to advise, coach, and case manage first-time in college students in Developmental Education. This advising model as a cohort creates opportunity for data tracking, early intervention, and continuous improvement in student services at a more granular level.

LESSONS LEARNED

- These projects take extensive time to develop meaningful changes to the curriculum. One of the recommendations for this project is to keep the work going through either a formal or informal approach.
- Infrastructure is needed to support this work. We need to create faculty learning communities, leadership roles related to developmental education, faculty fellows, faculty professional development, etc.
- Utilizing exercises for analyzing current state (e.g., process maps, landscape analysis, etc.) would be an effective tool for starting these projects in the future. When starting with an unformed conversation getting to the root of the matter takes much longer than it probably needs to.
- Although we learned from years past and focused our work this time by department, our scope was too broad in talking about NCBOs, various policies, student support outside of the classroom, curricular changes, and more. We likely should have done a deep dive on just one of these topics.
- Creating a sustainability plan up front is important. Some of the ideas we’ve developed still have an unknown sustainability plan.
- We should use a project manager as we continue this work. There are a large number of items to address and the conversations start quickly overlapping, making action items unclear.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Continue to work as a group beyond the timeline of this project. Partner with other groups across campus working with students with unique needs.
- Create faculty, staff, and student focus groups to understand the dev ed experience for all involved.
- Explore the usage of the first-year seminar course to provide additional student support.
- Redesign dev ed courses to include onboarding information for students explaining the importance and relevance of their enrollment in the courses. Restructure coreq classrooms into active learning classrooms. Reduce class size to 25 students in Math.
- Implement NCBO options for MMA students.
- Explore professional development related to dev ed from experts across the state and nation. Explore CRTLE train the trainer for a professional learning community on campus for faculty.
- Create an assessment calendar and plan for diagnostic scores and placement as well as review of restricted courses. Ensure all dev ed students are on progress reports lists to have grades reported.
- Explore reallocation of academic support resources for tutoring to support dev ed courses.

The University of Texas at Austin

Phase 1 Project: The Second-Year Experience

PROJECT GOALS

The initial focus of the ESP project was student success in undergraduate gateway courses. As the project progressed through data discovery, we became more interested in second-year students as a population in need of additional research. UT Austin second-year students failed or withdrew from their courses at higher rates than students in other undergraduate enrollment classifications in every year and across the entire period of this study (2011-2021). Other research suggests that students experience unique challenges in the second year. Based on that, we determined that further research was necessary to explore challenges present among our second-year student population, which we hope will become the basis for recommendations for future enhancements to campus student support services.

TEAM MEMBERS

- **Jeff Freels (Team Lead)** – Director of Academic Policy and Research, Office of Strategic Academic Initiatives
- **Kye Lee** – Associate Director, Data to Insights
- **Heather Pleasants** – Assistant Director, Center for Teaching and Learning
- **Hillary Procknow** – Assistant Dean, School of Undergraduate Studies
- **Matthew Russell** – Faculty Development Specialist, Center for Teaching and Learning

METRICS AND DATA

- **UT System dashboards** – second-year student DFW rates.
- **Literature review** – second year and/or sophomore student success with particular attention to experiences of underrepresented students.
- **Methodology review for future research** – learning analytics, surveys, and qualitative research methods

ACCOMPLISHMENTS TO DATE

- **Culture Change**
 - Since 2021, the Second-Year Experience (SYE) project has served as a catalyst for culture change. The project has elevated the profile of second-year students, shifting institutional attention towards their unique needs and challenges. The resources, data, and structured dialogues generated by the SYE initiative have informed enhancements to existing student success programming and seeded innovative pilot programs designed with evidence-based practices. The project has stimulated new lines of institutional research and inquiry, deepening our understanding of the undergraduate journey. The most compelling evidence of this culture shift is the interest from diverse campus units seeking active involvement in SYE initiatives.
- **Leadership & Governance**
 - The success and growing influence of the Second-Year Experience (SYE) project may be attributed to the project's distributed leadership model, which has engaged key personnel from across the university. These stakeholders have championed SYE-related sub-projects within their own areas while maintaining alignment with the overarching goals of the central initiative. Executives have been supportive, although project momentum has been primarily driven by the commitment and collaborative energy of this distributed network.
- **Stakeholder Engagement**
 - SYE project contributors have cultivated broad stakeholder engagement to diminish traditional institutional silos. Over the grant period, participation has expanded, drawing in a diverse coalition of staff, faculty, and students across numerous areas. This growing network is a testament to effective project communication and the perceived value of the SYE mission. Staff and faculty have taken active leadership roles in initiatives that are driving the accomplishment of project goals. Critically, students have been integrated as valued project partners, contributing meaningfully as researchers and assistants, enriching the initiative with their firsthand perspectives.
- **Data Infrastructure & Agency**
 - A cornerstone of the SYE project has been the development and strategic utilization of data infrastructure focused on the second-year student population. The project team collaborated across departments to collect, integrate, and analyze multifaceted data, yielding novel insights and opening previously unexplored lines of institutional research. Significantly, the project emphasized not just data collection, but data agency – empowering stakeholders through transparent sharing and facilitated discussions of findings. This approach has been instrumental in creating the conditions necessary for evidence-based change.
- **Sustainable Resources**
 - Project momentum has been sustained by committed staff across the university. The distributed leadership model further ensures that ownership and expertise are spread across the institution, reducing reliance on a single project team and fostering long-term capacity. The SYE project team also prioritized the creative use of existing technical resources and data infrastructure. Rather than building entirely new systems, participants accessed, combined, and analyzed data from established institutional sources. This approach not only maximized the value of existing assets but also ensured that the project's analytical capabilities are integrated with ongoing institutional data practices.

LESSONS LEARNED

- We had heard of the “sophomore slump” before this project, but I think we were still somewhat surprised to find such clear evidence of it in the data.
- Almost every second-year student enrolls in large courses in Chemistry, Biology, Government, English, and Psychology, most of which make moderate to heavy use of Canvas (our LMS), but our data infrastructure is not sufficiently advanced to permit robust analysis of data from Canvas.
- Many universities around the U.S. have adopted “students in transition” programs that help students beyond the first year.
- Prior research suggests that second-year students experience a decline in academic self-efficacy and diminishment in belonging that may challenge their success in year two.
- Authentic student voices are too often missing from institutional research.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Enabled cross-institutional collaboration among units in nine offices across five divisions of the university.
- Identified two valid Canvas early warning markers, with multiple other measures under investigation.
- Submitted student survey for IRB approval, with administration planned in Spring 2023.
- Put Students as Partners qualitative research in flight with a GRA and an undergraduate research assistant.
- Plan to assemble prototype of Canvas success dashboards.
- Plan to issue Second-Year Experience report to institutional leadership.
- Plan to collaborate with Curriculum, Enrollment, and the School of Undergraduate Studies to adapt existing student success programs to better serve second-year students.
- Plan to seek external funding to deepen and extend our impact.

The University of Texas at Austin

Phase 3 Project: Second-Year Experience Project

PROJECT GOALS

The University of Texas at Austin (UT Austin) problem statement built on findings from the 2022-23 ESP grant, with a continued focus on identifying ways to increase curricular coherence and transparency and support increased perceptions of community and belongingness among undergraduate students in their second year (SY). This context provides UT Austin with the opportunity to ensure that the first two years of undergraduates’ Longhorn Learning Experience will set them up for success as they move forward in their degree programs.

TEAM MEMBERS

- **Heather Wright (Team Lead)** - Assistant Director, Center for Teaching and Learning
- **April Barnes**, Director, University Leadership Network, Undergraduate College
- **Jeff Freels** – Director of Academic Policy and Research, Office of Strategic Academic Initiatives
- **Morgan Ginther** – Project Manager, Office of Strategic Academic Initiatives
- **Tara O'Neill** – Director of Research & Data, Governmental Affairs & Initiatives
- **Hillary Procknow** – Assistant Dean, School of Undergraduate Studies
- **Kathy Uitvlugt** – Deputy Director, Office of Student Success

METRICS AND DATA

- **Individual student & focus group interviews** – UT Austin uses a Students as Partners in Research model to phenomenologically ground interventions in the lived experiences and language of SY students, and to present conceptualizations that move the scholarly conversation beyond notions of the “sophomore slump.”
- **UT System Dashboard and UT Austin Canvas course and Ally data** – Course sections were identified as exemplars of effective course design and/or instructional design, and student success for SY students.
- **Curricular Analytics**– The suggested arrangement of course across undergraduate degree programs, paired with a sample of students’ course plans and semi-structured interviews are being used to identify and visualize bottlenecks and blockages to degree completion in the SY in preparation for continued work with faculty and advisors.

ACCOMPLISHMENTS TO DATE

(Please choose between some or all of the categories to share accomplishments from this specific ESP project)

1. **Institutional Identity** – the SYE team placed priority on aligning with the mission of UT through grounding its work in student-centeredness, and conceptualizing SY student success as a goal connecting faculty and staff from a broad range of curricular and co-curricular units. The successful piloting of the ECE Amplify Peer Mentoring Program, led by faculty member Dr. Niina Telang, will serve as a model for others.
2. **Culture Change** – Through grant support and a partnership with stakeholders who attended the Lamborn-Hughes Institute, a cohesive, multi-unit strategy was implemented that involve faculty, staff, and students in institution-wide projects and focused, collaborative conversations foregrounding new points of connection.
3. **Leadership & Governance** – The foundation for ongoing, high quality project management and a student-centered, rigorously collaborative process for maintaining focus on, and delivering key project deliverables was made possible by partnerships and support from the Vice Provost and Assistant Vice Provost of Academic Affairs, and the Associate the Senior Vice Provost for Curriculum and Enrollment. Leaders representing stakeholders with expertise in a broad range of areas relevant to the SY comprised the project team. This allowed UT Austin to be quickly responsive to the needs and questions of students, faculty and staff.
4. **Strategic Alignment** – The longstanding success of UT Austin’s First Year Experience and Freshman Interest Groups provided an underpinning for the institution’s approach to SY student success; architects of this programming were active collaborative partners; together the SYE team’s objectives and deliverables were anchored in a commitment to holistic student support, success, and impact.
5. **Stakeholder Engagement** – The Center of Teaching and Learning, with partners from the Undergraduate and other Academic Affairs units hosted the 2025 “Decoding the Second Year Experience” Symposium at the Thompson Conference Center. This at-capacity event with faculty, staff, and students from across the university provided an opportunity for showcasing second year experience (SYE) programming and student-centered research conducted by groups such as the Initiative for Students as Partners in Research and Education (InSPIRE). 96% of attendees said they discovered valuable resources and collaborative opportunities through the symposium.
6. **Data Infrastructure & Agency** – Through ongoing support from the UT System and collaboration within and across units, the project achieved a level of data agency that facilitated conversations about the SY at the program level.
7. **Sustainable Resources** – By identifying and building on existing programming, and institutional knowledge, UT Austin made significant progress in mapping the “landscape” of existing supports for SY students.
8. **Assessment & Continuous Improvement** – The production of over 50 curricular complexity maps provided beginning points for college and department conversations about assessing and addressing bottlenecks and blockages within coursework typically taken by SY students.

LESSONS LEARNED

- Data agency is more than just access to data; it is the ability to use data to drive meaningful change that improves the student experience in the SY.
- Identifying gaps in outcomes and exploring the reasons for those gaps involves looking at multiple touchpoints in the SY student experience.
- Redesigning a pathway or curriculum requires a close examination of which students are doing well, which ones are not, and the reason behind both outcomes.
- Although the Second Year Experience (SYE) team has taken a holistic approach to SY students’ success, the team also identified needs related to further building out cooperative and collaborative Y2 intra-institutional partnerships that will help UT Austin create a system-oriented approach to supporting students in SY.
- Beyond the SYE team’s data collection and analyses of UT System and institutional qualitative and quantitative data, through cooperative work and discussion, the team also identified the significance of initiating and building on the use of high impact tools and processes.
- Building institutional awareness of current SY efforts, resources, and data necessitates a coordinated approach to rendering this information visible and facilitating the integration of this knowledge within the campus community’s work.
- Successful SY curricular interventions have a foundation in students’ and institutions understandings of success and failure, as well as SY scholarship, and should incorporate student development theory and praxis.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Space for supporting and actively nurturing a sense of belonging and community among SY students through specific and continuous processes and practices was created and bolstered (SY Welcome Back events and connections with the ongoing Student Experience Project).
- Curricular Analytics visualizations and an app (beta) used in conjunction with focused and stakeholder-specific SY-focused curricular and co-curricular interventions.
- Design and pilot of an ECE peer mentoring program, aimed to create a community outside the classroom.
- Students as Partners approach for researching and evaluating the project (Longhorns as Partners) and associated research outputs.
- Resources to institutionalize pedagogical clarity and support to ensure high-quality teaching and learning in SY courses and beyond.
- Creation and dissemination of resources tailored students, instructors, and staff, as well as opportunities for cross-unit discussion and collaboration.

Phase 1 Project: Data Agency, Action, and Insight, Redesigning Student Pathways

PROJECT GOALS
Better understand equitable outcomes in first semester math courses as demonstrated through the disaggregation of data information and comparison across time. Develop a process for UT Dallas to assist in identifying those math courses with inequitable outcomes for different student groups, a way to reach out to offer resources to these students to improve success, and a feedback loop to department heads and leadership to monitor progress on these goals. Develop a campus-wide change in perceptions regarding the relationship between math placement and outcomes with regard to math success.
TEAM MEMBERS
• Jessica C. Murphy (Team Lead) – Dean of Undergraduate Education • Swati Biswas – Professor and Associate Head of Mathematical Sciences, School of Natural Sciences and Mathematics • Courtney Brecheen – Senior Associate Dean, Office of Undergraduate Education • Vladimir Dragovic – Professor and Department Head of Mathematical Sciences, School of Natural Sciences and Mathematics • Laura Gelles – Postdoctoral Research Associate, Erik Jonsson School of Engineering and Computer Science • Jennifer McDowell – University Registrar, Office of the Registrar • Amy Walker – Associate Dean of Undergraduate Education, Erik Jonsson School of Engineering and Computer Science
METRICS AND DATA
• Historical UTD data analysis reviews – Learn lessons from previous campus projects, reports, and data analysis. • UT System dashboards – DFW information by course combined with UTD supplied math placement data. • Assessment and Learning in Knowledge Spaces (ALEKS) placement test cutoffs – Used to determine the minimum score for first-semester math placement. • ALEKS topic area scores by student – Learning about areas of strength and areas for improvement in math learning of incoming classes. • Previously designed Retention Index scoring – Information about risk factors associated with historical retention at UTD merged with DFW and math placement data.

ACCOMPLISHMENTS TO DATE
Themes of Impact Culture Change • Shifted culture from siloed focus on departmental and school-level tasks and outcomes to one of shared responsibility for broader student success outcomes. • Established trust among team members that has led to additional collaborations, semesterly data discussions, and sustained productive partnerships. Stakeholder Engagement • Engaged a broader set of stakeholders all mobilized toward common goals throughout the process. • Applied what worked during project to other departments that are now working cross collaboratively to improve student outcomes in critical courses. Data Infrastructure & Agency • Created semesterly process to share important course-level student profile data directly with instructors. • Developed sustainable means of collecting data related to student preparedness using course diagnostics and early quiz grades to identify vulnerable students. • Democratized data by sharing multiple quantitative and qualitative resources which improved access to actionable data to inform pedagogy, course content changes, and interventions. Example of Institutionalized ESP Initiatives • ALEKS Up summer program designed to increase calculus readiness and the number of students who place into first semester calculus. After participation in ALEKS Up, 90% of participants received an ALEKS Math score to place into Differential Calculus, which decreases time to degree. • Calculus Concurrent Course offered during special session to students who score low on ALEKS, students who underperform on the in-class diagnostic, or who underperform on the first quiz. Approximately 95% of respondents agreed that the course increased their confidence in learning and applying mathematical concepts. • Student Profiles consist of enrolled student characteristics, including college readiness and math placement details, that are provided directly to instructors to inform pedagogy. • Calculus First Day Diagnostic collects data related to a student’s familiarity with foundational concepts, as well as their comfort and confidence related to solving example problems, that informs course content focus areas early in the semester. • Calculus Early Intervention is set within the Learning Management System to automatically refer underperforming students to the one-stop, share Student Success Center resources, and encourage enrollment in the Calculus Concurrent Course based on performance metrics identified to have a significant relationship on final course grades.

LESSONS LEARNED
• One of our important lessons learned is there is a need to address data perceptions in order to encourage data agency. Learning about some of the different ways we can understand what a dashboard says and who our students are was fruitful for discussion. • It is a challenge to know where students are, and this project’s data exploration phase showed us ways that we can meet that challenge. Although many institutions use DFW rates to help them see larger trends, our cohort can see that these may not be the best way to determine where interventions are needed. The importance of multiple data sources in learning more about where to meet students cannot be overstated. • As with any project that does not rely only on one cohesive unit, there are unique challenges to projects that cross departments, units, and divisions. One of our lessons learned here is the importance of open and honest communication during collaboration.
OUTPUTS AND OUTCOMES IN ACTION PLAN
• Summer Intervention Course – Making a first step towards closing gaps by student characteristic in first semester MATH outcomes. Workshops’ successes can be seen by improved outcomes in student participants’ first math class compared to what might be predicted using the historical data. • Creation of University-wide working committee – To help support the continuation of the project and advocate for resources. The committee can additionally be used for projects beyond math in future years. • Communication about ALEKS to campus community – ALEKS is currently used only as a placement tool but does have learning features that could be better utilized. Faculty and staff should have a better understanding of the ALEKS scores that lead to placement. We want students to have more agency in their use of the ALEKS platform, seeing it as more than placement. • Incorporate ALEKS data in institutional practices – Make more of what we know about students’ areas of strength and areas for improvement from placement exam available to campus partners. • Engagement of Math faculty – Enable data democratization to provide faculty more access to timely information on math placement topic areas and first semester course gaps by student characteristic. • Development of comprehensive assessment plan – Work with the Office of Assessment to develop a comprehensive assessment plan for the project. • Increased sharing of data with faculty teaching first semester math courses.

Phase 3 Project: Improving Students’ Success and Experience
In the Calculus Sequence at UTD

PROJECT GOALS
During the first ESP Project, UTD discovered different outcomes in first-semester calculus for students who earned math placement scores in the lower range of qualification benchmarks and those from historically marginalized backgrounds. We propose continuing to focus on enhancing classroom belonging, leveraging supplemental support in the curriculum, offering preparatory activities to enhance success, and addressing resource affordability. One such initiative is the Math OER project. The Department of Mathematical Sciences prepared its own, completely free for our students, educational material for MATH 2413 Differential Calculus. We plan to prepare similar, completely free, material for the follow-up class, MATH 2414 Integral Calculus.
TEAM MEMBERS
• Vladimir Dragovic (Team Lead) – Professor and Department Head of Mathematical Sciences, School of Natural Sciences and Mathematics • Swati Biswas – Professor and Associate Head of Mathematical Sciences, School of Natural Sciences and Mathematics • Courtney Brecheen – Senior Associate Dean, Office of Undergraduate Education • Mietek Dabkowski – Professor of Mathematics, Mathematical Sciences Department • Rabin Dahal – Associate Professor of Instruction, Mathematical Sciences Department • My Linh Nguyen – Associate Professor of Instruction, Mathematical Sciences Department • Jigar Patel – Professor of Instruction, Mathematical Sciences Department
METRICS AND DATA
• UT System and UTD student data – Comprehensive data about the students who took calculus classes over the last several years. • Previous syllabi for Math 2413 and Math 2414 – to consider what materials should be moved across the math class curriculum to improve students’ experiences and success. • Free instructional materials for Math 2413 (developed previously) – To align with the curriculum and syllabi.

ACCOMPLISHMENTS TO DATE
1. Strategic Alignment: The ESP project fully aligns with the improvement of student success as one of the main strategic goals of the university. Since gateway math classes are taught for almost all majors at the university, the success, affordability, and overall student experience in such classes is of the strategic importance for the university. 2. Stakeholder Engagement: This proposal engages an array of stakeholders including undergraduate students, teaching assistants, instructors of record, upper administration and community colleges toward the shared goal of academic success. The methods, and tools developed within this project are ready to be scaled up and used for other classes within Mathematical Sciences and also outside, for service courses in other disciplines and departments, e.g. General Chemistry. 3. Sustainable Resources: The proposal generates free educational materials for MATH 2414 and further polished and aligned the existing free educational materials for MATH 2413. These materials provide sustainable free resources which make the classes more affordable and more accessible. 4. Assessment & Continuous Improvement: The findings of this project are data-driven including comparison of relevant metrics before and after implementing some interventions. They provide an assessment of various measures that have been undertaken on our path of continuous improvement in the instruction of gateway math classes. We will continue to monitor the progress and make adaptations based on both qualitative and quantitative assessments.

LESSONS LEARNED
• We were able to use data to confirm that the curricular changes we proposed and implemented previously put us on the right path in improving students’ success and experience. • We also indicate that there was an issue about ALEKS component scores being missing for some students who had a positive overall ALEKS score. • There is an issue with record keeping of the placement into calculus courses for students with ALEKS scores less than 80, as currently there is no easy way to check how that happened for individual students. • A better and streamlined record-keeping for full ALEKS data and the exact reason for a given student to be placed in their first calculus (or math in general) class at UTD is needed for easy extraction of data in the future for analysis.
OUTPUTS AND OUTCOMES IN ACTION PLAN
• Revision of syllabi for Math 2413 and Math 2414 and their closer alignment with each other so they can use instructional time more efficiently and effectively. • Revision of free materials for Math 2413 to align with new syllabi and making instruction more affordable and accessible. • Creation of a new free educational material for MATH 2414. • Eliminated the use of expensive commercial education materials and produce free materials that is tailored to the exact needs of our students. • Create a co-op class to enhance Math 2413 that is free and should help their success in Math 2413. • Have a wider usage of math placement tests (ALEKS). The component scores may allow an instructor to help students navigate better through the course and customize learning to each student. • Communicate with community colleges to ensure transfer students who take Math 2413 before transferring have similar outcomes to students who take the course at UTD.

PROJECT GOALS

Focus is on reducing unused semester credit hours (SCH) and improving time to degree for students in Biological Sciences and Kinesiology programs. Majors in these fields, particularly those who are first generation, seem to take longer than others in their respective colleges to complete their degrees. For both programs we want to find out where the excess credit hours are coming from; to what extent they are different for students who transfer into UTEP or who transfer into a major from another program; and to what extent they are linked to retakes of required courses. This project is tightly aligned with our Title V Grant for preventing stop-outs and improving completion of Hispanic/Latinx students.

TEAM MEMBERS

- **Toni Blum (Team Lead)** – Vice Provost for Curriculum Effectiveness and Improvement, Academic Affairs
- **Julie Rivera** – Director of Academic Reports and Curriculum, Academic Affairs
- **Jason Boyle** – Chair, Department of Kinesiology
- **Joy Olimpo** – Assistant Dean for Student Affairs, College of Health Sciences
- **Charles Spencer** – Associate Professor of Biology and Undergraduate Program Director, Biology
- **Tina Garza** – Associate Dean, College of Science

METRICS AND DATA

- **Curricular Analytics program data** – Analyzes the complexity of degree programs by identifying complex pathways and “blocking” courses.
- **SCH to Degree data** – University average is 144 SCH, well over the 120 required for most programs.
- **Unused hours for transfer and UTEP originating students** – Review unused hours and build on that data.
- **UT System dashboards** – Looking at student outcome differences based on Pell and enrollment status.
- **Major flows** – Using UT System dashboards to view specialized major flow data showing students’ majors prior to entering these programs. Understanding retention of students in these majors from year one to two, and year one to graduation.
- **Course grades for prerequisite courses** – Investigating math and chemistry prerequisites, as well as gateway courses in the major.

ACCOMPLISHMENTS TO DATE

1. Institutional Identity: BS Kinesiology Degree Plan was completely restructured to allow flexible pathways and better alignment with transfer courses. BS Biological Sciences eliminated some prerequisites.
2. Culture Change: Faculty began to think more carefully about SCH to degree and assuring a pathway for all students. More attention is paid to degree and course changes, particularly their alignment with transfer.
3. Leadership & Governance: Provost’s Office actively supports restructuring degree plans to assure more clarity and shorter time-to-degree. Institution recognizes and rewards programs making these changes.
4. Strategic Alignment: The ESP Projects align with the Curricular Analytics Project and several other initiatives to review and update curriculum. Considerations of complexity are also part of Program Review.
5. Stakeholder Engagement: Kinesiology shared their progress with department chairs and at a local conference in support of teaching and learning.
6. Data Infrastructure & Agency: Academic Affairs has developed some additional data tools. Chairs and Directors are interested in better dashboards and this is driving some change at the institution.
7. Sustainable Resources: Regular use of the Curricular Analytics tool is ongoing and supported by Academic Affairs.
8. Assessment & Continuous Improvement: These two programs have continued to assess their progress – for example, they monitor the number of overrides and substitutions.

LESSONS LEARNED

- Success gaps by student characteristics were more nuanced than our prior understanding. The data on graduates showed more excess SCH for Pell-eligible students. However, UT System retention data revealed that students who do NOT receive Pell are more likely to drop out of the university altogether (thus, their data are not included in the graduates).
- Isolating unused SCH to those generated institutionally (not transfer) showed many were the result of students changing majors.
- This highlighted a potential need to create new pathways or evaluate existing pathways among programs, in order to reduce excess hours.
- There are practices in both programs that are different from the existing degree/course requirements. Some very simple changes in aligning those practices with the degree plans should create some early gains.
- We need a great deal more data discovery, especially for the Biological Sciences degrees, in order to implement curricular changes.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- The Biology department identified alternate prerequisite routes through prerequisite adjustments. Multiple prerequisite reductions were processed and are effective in fall 2023.
- The Kinesiology department reviewed the curriculum and submitted a request for complete redesign of the degree plan.
- The changes, which will allow more flexibility and choice for all Kinesiology students, were approved and are effective in fall 2023.
- UTEP has invested considerable time and funding in the recently implemented holistic advising model, which has been deployed across all colleges. This will allow us to have a consistent method for tracking student progress and identifying barriers that may indicate patterns needing structural change.
- Planning an evaluation of the curriculum is an integral part of multiple grants and projects at UTEP. Our institution has already dedicated funding to support a technical review of all undergraduate programs that will build on the curriculum evaluation projects. This review has been completed.
- Planning to work with our Center for Institutional Effectiveness, Research, and Planning to deploy data tools that will assist chairs and directors to monitor student progress and identify barriers.

PROJECT GOALS

The problem that we want to address is why students in our Bachelor of Music degree programs are in the program longer and take more hours to graduate than students in any other program in the College of Liberal Arts. It is possible that this problem could be connected to an equity gap related to transfer credit. Most academic programs at UTEP have about 40-50% of their majors enter as transfer students, however only about 15% of students in the Music programs are transfer students. We want to determine whether the systems in place to assist transfer students are serving Music majors as they should. The programs included in this project are our Bachelor of Music program, with all its concentrations, and our Bachelor of Commercial Music.

TEAM MEMBERS

- **Toni Blum (Team Lead)** – Vice Provost for Curriculum Effectiveness and Improvement, Academic Affairs
- **Elsa Martin** – Assistant Director, Center for Institutional Evaluation, Research, and Planning
- **Julie Rivera** – Director of Academic Reports and Curriculum, Academic Affairs
- **Charles Leinberger** – Undergraduate Program Coordinator and Professor of Music
- **Rafael Valadez** – Assistant Dean, College of Liberal Arts
- **Steve Wilson** – Chair, Department of Music

METRICS AND DATA

- SCH to graduation, time-to-degree, and # degrees awarded for Music students
- Data on where (which prior institution) transfer Music students completed Music Theory courses. Number of transfer hours brought in by graduates of Music programs
- Expanded data to include courses considered core to the Music degree (Aural skills, Piano, Theory)
- Music Fundamentals connection to time-to-degree. Semester GPA by Ensemble Count.
- Add in factors of 1st generation, Pell-eligible, low-income, FTIC to data for SCH to graduation, time-to-degree, and # of degrees awarded for Music students
- Percentage of Music students who completed developmental education courses, which courses, and the grades.
- Music students who got a D or F in a University Core Curriculum course(s) and information about the course(s)
- Number of enrolled semesters since student reached Junior status

ACCOMPLISHMENTS TO DATE

1. Institutional Identity: Department of Music determined that eliminating the Fundamentals course and incorporating the knowledge into existing opportunities would better align with the institution’s mission.
2. Culture Change: Faculty began to think more carefully about SCH to degree and assuring a pathway for all students. More attention is paid to degree and course changes, particularly their alignment with transfer.
3. Leadership & Governance: Provost’s Office actively supports restructuring degree plans to assure more clarity and shorter time-to-degree. Institution recognizes and rewards programs making these changes.
4. Strategic Alignment: The ESP Projects align with the Curricular Analytics Project and several other initiatives to review and update curriculum. Considerations of complexity are also part of Program Review.
5. Stakeholder Engagement: Reopened communications between El Paso Community College and UTEP, specifically to align the Music Theory sequence.
6. Data Infrastructure & Agency: Academic Affairs has developed some additional data tools. Chairs and Directors are interested in better dashboards and this is driving some change at the institution.
7. Sustainable Resources: The first-year experience has been strengthened for Music majors through additional mentoring and tutoring. Regular use of the Curricular Analytics tool is ongoing and supported by Academic Affairs.
8. Assessment & Continuous Improvement: Piloting new Fundamentals module and will assess once enough data has been gathered.

LESSONS LEARNED

- Our first data discovery was that there was no significant difference in the number of excess hours for transfer and non-transfer students. This triggered a deeper dive into the courses the students are required to complete, looking at grades and the number of repeats for University Core courses, Music core courses, and the percentage of Music students enrolling in developmental courses.
- Our initial question was whether transfer students had more unused SCH than non-transfer students. Once we determined that was not the case, we moved on to core Music courses, which were Music Theory and Aural Skills courses. Did students who transferred to UTEP struggle more with these courses?
- Music Fundamentals courses are not in the degree plan because of the expectation that students can test out of them, but this means that if students do have to take these courses, they are not included in the students’ financial aid calculation.
- When students transfer to UTEP, they are often University Core complete or close to that. This means that they may not be able to take a full course load until they have passed their Music Fundamentals courses.
- Throughout the data discovery, the Music program has worked with El Paso Community College (EPCC) to identify disconnects between our programs. They have had multiple fruitful discussions about how to work together to better ensure students are prepared to continue their Music education at UTEP.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Improve Department of Music First Year Music Student Success Initiative with improved coordination between theory/class piano/applied faculty.
- Ensuring tutoring is available at times when students are available such as evenings and on weekends. Ensuring tutoring is available f2f and also remote via Teams or Zoom to help those students who are unable to be on-campus at certain times of day. Track theory tutoring usage through the creation of a Google spreadsheet populated by theory tutors as students utilize the service.
- Engage applied faculty to work with music theory and class piano faculty to track student success.
- Resume coordination efforts with EPCC music leadership to ensure alignment of curriculum and smooth the transition to UTEP in regard to process and procedures.
- Increased scrutiny on the number of credit hours students take, limits on financial aid, and a focus on reducing time to degree completion.

Phase 3 Project: Improving Time-to-Degree for Electrical Engineering

PROJECT GOALS

The BS in Electrical Engineering had a longer time-to-degree than most programs at UTEP, including other degrees in the College of Engineering. Similarly, our Curricular Analytics data showed that this degree plan was one of the most complex at the institution and one of the more complex Electrical Engineering programs across institutions. One of the most surprising things we identified was a tendency for students to persist in major courses and repeat them many times before passing them. We decided that a focus on resolving some of these sequences was more important than simply identifying the issue with one subgroup.

TEAM MEMBERS

- **Toni Blum (Team Lead)** – Vice Provost for Curriculum Effectiveness and Improvement, Academic Affairs
- **Virgilio Gonzalez** – Professor of Practice, Associate Chair of Electrical & Computer Engineering Department
- **Jesus Gutierrez** – Assistant Professor of Instruction, Electrical & Computer Engineering
- **Patricia Nava** – Professor, Electrical & Computer Engineering Department
- **Julie Rivera** – Director of Academic Reports and Curriculum, Academic Affairs
- **Rodrigo Romero** – Professor of Practice in Electrical & Computer Engineering
- **Miguel Velez-Reyes** – Chair of Electrical & Computer Engineering Department
- **Juan Vicario** – Director, Academic Data Solutions, Academic Affairs Department

METRICS AND DATA

- **UT System dashboards** – Number of students in BSEE program entering UTEP non-Calculus ready
- **UT System dashboards** – Success in first Math course attempted at UTEP.
- **UT System dashboards** – SCH attempted vs earned by semester.
- **UT System dashboards** – DFW rates and number of attempts for specific key courses.

ACCOMPLISHMENTS TO DATE

1. Institutional Identity: The Electrical and Computer Engineering Department is focusing on the access mission, and how to provide support for the areas most challenging to their students.
2. Culture Change: Increase in collaboration across the Electrical Engineering faculty, increased agency for Faculty of Instruction, and identified a collaboration opportunity with Computer Science.
3. Leadership & Governance: Provost and Academic Affairs staff proactively supports the department and included them in UT System workshops.
4. Strategic Alignment: The PAIR Cohort model is being adopted to strengthen the Reimagine the Core strategic initiative. In addition, the ESP Projects align with the Curricular Analytics Project and several other initiatives to review and update curriculum. Considerations of complexity are also part of Program Review.
5. Stakeholder Engagement: Increased communication between tenured faculty and faculty of instruction
6. Data Infrastructure & Agency: Department did their own analyses using UT System data to support faculty collaboration and buy-in.
7. Sustainable Resources: Lower SCH to degree data was shared with Dean’s Council. Regular use of the Curricular Analytics tool is ongoing and supported by Academic Affairs.
8. Assessment & Continuous Improvement: Assessment plan under development.

LESSONS LEARNED

- Many of the issues we had thought would be the underlying problem for first-gen students were not actually the basis for the gap. Math readiness is a concern for a high percentage of students, and we may need a bigger solution for this issue, as 90% of the students enter without being Calculus-ready. We had also surmised that first-gen students may take fewer credits per semester, but that was not the case. We ultimately determined that higher than average repeat rates in key courses were likely at the center of the time-to-degree issue, but these did not differ between first-gen and non-first-gen.
- We did uncover another gap, which showed that DFW and repeat rates were higher for transfer students than for FTIC students. That discovery led us to identify alignment of introductory Circuits courses as a foundational issue.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Co-curricular support – development of mathematical modules to complement courses that require them.
- Improve programming skills and course alignment of programming prerequisites to 3376 and alignment of CS1320, EE 2372, and EE 3376.
- Meet with El Paso Community College (EPCC) Faculty to align the topics covered in equivalent courses like EE 2350. There are high repeat rates for transfer students.
- Move some courses in the curricular program to better align co-requisites and pre-requisites. Some classes may be taken concurrently with core sequence classes as the material can be taught just-in-time and ease the time spent on the ECE core sequence.
- Create a Physical Programming course. CS 1320 is the only option for intro programming in the core; there are high repeat rates for CS 1320 and subsequent courses

The University of Texas Permian Basin

Phase 1 Project: Closing Retention and Graduation Gaps for Students in High-Demand Fields in the Permian Basin Region

PROJECT GOALS

UT Permian Basin (UTPB) is looking to close gaps in retention and graduation with non-traditional student populations in high-demand fields for the Permian Basin region. There are significant shortages in the number of teachers and engineers in this area, and working on improvements for these areas will help UTPB meet the first two pillars of the University's strategic plan, Student Success and Serving the Region. Two of our most significant equity gaps are in male teachers (particularly African American and Hispanic male teachers) and female engineers. The goal of this program would be a complete review of our curricular pathways to find ways to close equity gaps by identifying roadblock classes and working to alleviate these obstacles while also working to identify and support students who are considering these programs.

TEAM MEMBERS

- **Michael Frawley (Team Lead)** – Dean of Student Success
- **PJ Woolston** – (formerly) Vice President of Enrollment Management
- **Iris Fierro** – Director of UTPB Success Center
- **Rajalingam Dakshinamurthy** – Associate Vice President for Research and Dean of Graduate Studies
- **Harishchandra Aryal** – Assistant Professor, Mechanical Engineering Nuclear Track

METRICS AND DATA

- **UT System dashboards** – Program data and success rates by course.
- **DFW rates** – Data on outcomes by courses.
- **Math progression** – Identifying students' math progressions when they enter programs of study and comparing them to DFW rates.

ACCOMPLISHMENTS TO DATE

(Please choose between some or all of the categories to share accomplishments from this specific ESP project)

1. **Culture Change** – the new degree maps that separated out high DFWI classes have decreased DFWI rates a great deal and have led to higher retention rates, this has allowed better collaboration between Engineering, Advising, and Student Success and has built trust between these units.
2. **Stakeholder Engagement** – this was the first time that Engineering has been able to work this directly with Student Success and the Success Center, breaking down silos and working to create a more collaborative environment.
3. **Assessment & Continuous Improvement** – we were able to use the survey instruments as we planned and have gotten excellent feedback, this has allowed us to make ongoing changes and refinements as we have moved forward.

LESSONS LEARNED

- The Exemplary Student Pathways process allowed us the time and space as an institution to really understand the data behind our perceptions.
- We brought together a diverse group to study these problems, and we had admissions, student success, and the academic departments working together to find ways to clear barriers, especially around class progression and learning loss.
- The data made it possible for us to see differences in a small number of students, allowing us to put interventions in place as we increase numbers in programs through the admissions process.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Complete Texas Success Initiative (TSI) maps and review current maps. This will help us identify places in the curriculum that put our target populations at a disadvantage.
- Provide 8-week courses in Algebra, Pre-calculus, and Calculus I with linked progression. We want to increase flexibility for students early in the program and increase the chance of success through successful completion of a format that works better for them.
- Administer student surveys to understand their experiences (qualitative data) better. Frank and open-ended comments from students will give us the feedback we need to adjust our instruction, procedures, and sequences, in response to actual student experiences.
- Student Ambassador Program has commenced, and the first cohort of ambassadors has started work.
- New degree maps have been created to separate high DFWI classes.
- The recruiter for the College of Engineering is performing targeted outreach to specific groups.
- Summer bridge is being developed in an online format for Calculus to reach as many students as possible.
- Introduction to Engineering for High School students ran for the first time in fall 2022.
- Plan to review DFWI data over summer to see effectiveness of changes.
- Plan to review applications and admissions to see if outreach is working.
- Planning to expand use of surveys, especially exit surveying, for students who leave the program.
- Planning to expand math readiness.



PROJECT GOALS

Math, as with most system institutions, is the biggest issue that we currently face. Students, especially from underserved populations, are entering college extremely underprepared for college level math. We have worked in many ways to fix this problem, as it is very important to our institutional goal of doubling the number of credentials that we award. But, it is a non-academic issue that is really holding students back. The cost of the textbook for the class is very high. For the fall semester the cost of the book was \$165. This is an online book and the class cannot be worked on, at all, without purchasing. Students who do not have the book on the first day of class are at a severe disadvantage, and far too many students do not have the book when it is needed. We hope this project will find us a new textbook pathway to solve this issue.

TEAM MEMBERS

- **Michael Frawley (Team Lead)** – Dean of Student Success
- **Paul Feit** – Chair & Professor, Mathematics Department
- **Jim Hunt** – Associate Provost, Academic Affairs Department
- **Demi Moorhead** – Graduation Help Desk Coordinator, Student Success Department
- **Wendy Padilla** – Lecturer, Mathematics Department
- **Cesar Sanchez** – Director of Developmental Education, Student Success Department

METRICS AND DATA

- **High DFW Courses** – Grade distributions/DFW rate based on year taken.
- **# of attempts, credit, graduation** – We can see who is receiving credit and who is graduating.
- **1st year attempted** – We want to see if taking the class early will result in retention.
- **Final Scores for Math 1314, Math 1332, and Math 1342 for school year 2023-2024** – We want to see if there have been any improvements comparing current DFW rates to previous school year.
- **DFW rates for students' other courses** – We want to see if interventions that we develop will help students in other areas besides just mathematics.

ACCOMPLISHMENTS TO DATE

(Please choose between some or all of the categories to share accomplishments from this specific ESP project)

1. **Institutional Identity** – one of our goals in Student Success is to meet students where they are and get them to where they need to be, and removing this roadblock has helped us to meet this mission and help students make greater strides towards graduation
2. **Strategic Alignment** – this entire project dealt with strategic alignment, as we needed to make sure students were taking math classes that would actually help them in their career goals, and allow students to understand the importance of what they were learning. Moreover, by aligning advising procedures with academic departments, students were able to understand their path better
3. **Stakeholder Engagement** – getting the Math Department to understand their crucial place in the success of students was an important part of this project, and how they were able to claim agency in getting students on the right path is something we want more departments to be able to take advantage of.

LESSONS LEARNED

- The anecdotal data that we had about Math being a roadblock, especially at the beginning of a student's journey, was correct, but the underlying issues that needed to be addressed were very different from what we thought they were.
- It was especially important to have the faculty teaching these courses and running the department involved so that they could become important agents of change in this process. Most of what is seen in the action plan was driven by the faculty, which means that the changes have a good chance of succeeding as we hope they will.
- Data discovery really changed the course of our project, and while a greater focus on OER could have been interesting, the action plan we settled on will have a much greater early effect on student outcomes, and these plans still allow us to return to OER in our future work.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Create a road map for Math dev ed of what should be taught in this course, what should be included, and what can be omitted.
- Review the current class offering to see what needs to be saved or removed. Allocate time and resources so course skills are effectively taught.
- Determine assessments such as student attendance (across majors, for example).
- Study which students take this course to drive development of the course, and what topics we might include in order to engage the students more effectively.
- Create assignments, projects, and other assessment materials to study the balance of the course material with the background of students.
- Create instructor materials for the class in order to have everything prepared before the semester of implementation begins.
- Train advisors to match up students with the correct math class.
- Work with the Math Department to ensure enough seats for each class.
- Enroll students in the correct math during the advising appointment or orientation.

The University of Texas Rio Grande Valley

Phase 1 Project: Exemplary Pathways, Student Success, and Faculty Professional Development

PROJECT GOALS

The initial focus of the project was to address pass rates in key gateway courses for first-year students, exploring how we could address these through our professional development academy, Conexión. We narrowed this to focus on creating a smoother pathway for students in Nursing and Kinesiology majors by removing some of the barriers that delay progress to program admissions and degree completion. Specifically, we aim to improve pass rate outcomes in Anatomy & Physiology I and II, courses with historically high DFW rates, which are critical to success in those majors.

TEAM MEMBERS

- **Jonikka Charlton (Team Lead)** – Associate Provost of Student Success and Dean of the University College
- **Susan Brown** – Assistant Vice President, Strategic Analysis & Institutional Reporting
- **Alyssa Cavazos** – Associate Professor of Rhetoric & Composition, Writing & Language Studies, and Director of the Center for Teaching Excellence
- **Colin Charlton** – Professor of Rhetoric & Composition and Chair, Writing & Language Studies
- **Marlene Galvan** – Director, Writing Center
- **Tim Sears** – Associate Professor of Practice, Biology
- **Fred Zaiden** – Professor of Biology and Senior Associate Dean, College of Sciences

METRICS AND DATA

- **Internal UTRGV Dashboard on course grade distribution** – Access to data about high volume and high DFW rate courses (disaggregation by modality, campus, instructor, first generation status, and prior college credit status).
- **Retention of students by number of DFWs within first term** – Data on the impact of failing even one course in the first term.
- **Qualitative Surveys** – From 2021-2022 participants in Conexión (a UTRGV professional teaching development program) participated in a survey which provides data on faculty awareness of student challenges, individual DFW rates, and course-wide DFW rates.

ACCOMPLISHMENTS TO DATE

- Culture Change
- Anatomy & Physiology faculty participated in a customized Conexión professional development academy designed to encourage faculty reflection on their own teaching and learning experiences, deepen their understanding and empathy for their students, explore data about their own students’ performance, and make concrete plans for how they could make changes to their teaching practices, course design, etc. to better ensure success of all students.
 - These faculty participated in a second Conexión paired with English 1302 faculty the following year. Culture change benefits included: non-content- based feedback from faculty on course/assignment design, required explanation of important concepts and practices to experienced teachers but field unfamiliar (so that assumptions about knowledge/awareness/clarity emerge and get workshopped), interdisciplinary development of paired responsibilities (concept learning and application, group learning in this case), better understanding of cross-core student development (1302 students are often in or about to take one of the A&P classes), so it prompts discussions about how students develop learning skills throughout their first 2 years), creates interdisciplinary awareness of a student-centered community of teachers that isn’t about the course, challenges teachers to confront the uniqueness or strangeness of their personal learning experiences (many biologists learned the same, many writing teachers learned the same, and they can slip into assuming that’s how all learning happens until confronted with difference).
- Leadership & Governance
- Leveraged a leadership change (chair and course lead) to reset goals and expectations around how this course was taught. Decisions about who would be assigned to teach the courses were based on student outcomes and best fit for teaching students who historically struggle with these courses.
- Strategic Alignment
- We piloted and then scaled Peer-Led Team Learning into all Anatomy & Physiology classes, embedding peer support for all students into the classes. This normalized the idea of getting additional support for academic success and provided on campus student employment for the peer leaders. Both have proven impact on pass rates, as well as retention and graduation rates.
- Stakeholder Engagement
- The team lead, Sr. Associate Dean (Sciences), and Biology chair convened a group of stakeholders from programs which require Anatomy & Physiology to share information about how the courses were currently being taught and invite feedback from these areas about what their students need from the courses to be successful in their majors/professions. The courses were redesigned, particularly the labs, based on this feedback.
 - Conexión facilitators were drawn from a different discipline (writing) with the express intent of offering the Biology faculty some safety in speaking freely about their struggles, as well as providing them an outside perspective, people who could ask questions that might disrupt their traditional discipline-shaped ways of thinking about teaching their content.
- Data Infrastructure & Agency
- We shared pass rate trend data with each faculty member so they could reflect on any patterns in student performance and make plans for addressing them.

LESSONS LEARNED

- Guiding faculty in their journeys to become more aware of student success gaps is challenging work that takes a long-term commitment.
- Many faculty are unaware of student success data, and, thus, are not attuned to how their individual practices influence student success at the level of their own courses and at a broader institutional level.
- We need to build the capacity of faculty and staff to lead this work. The same is true for chairs.
- It is very challenging to design and deliver tools that make student success data accessible at the level of practice.
- To make sustainable progress on reversing low pass rates, there must be a genuine commitment from all levels of leadership (provost down to chairs) to hold each other and faculty accountable for student success in impacted courses.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Piloted Peer-Led Team Learning (PLTL) in Anatomy & Physiology.
- Created a project-specific version of our pass rate dashboard, filterable by student characteristics with known student success gaps.
- Presented to the deans & chairs meeting about Student Success Division restructuring to support Faculty-Student Success Working Groups with a focus on student success gaps.
- Created a data workshop for the Women’s Faculty Network.
- Created and delivered a day-long workshop focused on building student-success-centered data literacy for 140+ Student Success Division staff at their annual development day.
- Applied for (and received) a THECB Accelerating Student Success Planning Grant and an Implementation Grant to expand the work begun in this project to ENGL 1301 and College Algebra.
- Created and delivered a data workshop for UTRGV chairs.
- UTRGV’s Academy for Distinguished Teachers is charged with developing a plan to lead a campus-wide conversation about how to better evaluate teaching in performance evaluations.
- Planning to use what we’ve learned in the ESP process to develop a model/framework for engaging Faculty-Student Success working groups to better understand and address the impact of high enrollment, high DFW courses on retention and degree completion.
- Planning to expand our work beyond Anatomy & Physiology to other key gateway courses for other majors.
- Planning for Anatomy & Physiology faculty to participate in a discipline-specific Conexión workshop series, culminating in course redesign.

The University of Texas Rio Grande Valley

Phase 2 Project: Redesigning the Biology Major with a Student Success-Centered Framework

PROJECT GOALS

It has been over a decade (including at the legacy institutions) since the Biology major has been updated. The number of Biology majors has decreased significantly (and rapidly) in the past two years, with far more students choosing majors in health professions because the career pathways and opportunities are far more obvious and in alignment with current job needs. The Biology department is seeking to improve the number of our graduates that get a job in STEM fields that align with their personal professional goals after graduation (including getting a job matched to their degree in the Rio Grande Valley, since many want to continue living in the Valley after graduation).

TEAM MEMBERS

- **Jonikka Charlton (Team Lead)** – Associate Provost of Student Success and Dean of the University College
- **Sara Black** – Associate Professor, Department of Biology
- **Susan Brown** – Assistant Vice President, Strategic Analysis & Institutional Reporting
- **Brad Christoffersen** – Assistant Professor, Department of Biology
- **Robert Dearth** – Chair and Professor, Department of Biology
- **Kathryn Perez** – Associate Professor, Department of Biology
- **Laura Saenz** – Associate Vice President, Academic and Institutional Excellence
- **MD Saydur Rahman** – Associate Professor, Department of Biology
- **Fred Zaidan** – Professor of Biology & Senior Associate Dean, College of Sciences

METRICS AND DATA

- **UTRGV dashboard** – Identified the number of students and the degree programs that Biology majors move to and at what point in their education. Identify enrollment, retention, and graduation rates of Biology majors.
- **TMDSAS** – To identify the number of Biology majors that applied to professional programs (med, dental, vet, other).
- **Lightcast Biology Program Report and SeekUT** – Identify the job market and skills needed for Bio majors.
- **Bio Majors Survey** – Survey to learn student interest, perceptions of degree and career paths.

ACCOMPLISHMENTS TO DATE

Institutional Identity

- Biology faculty surveyed their majors to get a better understanding of their career aspirations and disciplinary interests, and they also looked at where their students are getting jobs and what skills those companies are looking for. They redesigned the major to better meet both sets of needs.

Culture Change

- Most members of the Biology department, thanks in large part to the leadership of its new chair, were involved in bi-weekly discussions of the data discovered through this project, and within a few months had agreed upon a substantive redesign of the major. One major change was to identify a set of skills that would be useful on the job market (lab skills, data analysis, writing, etc.) and to front-load those in new courses early in the major and then scaffold continued development throughout. This took an entirely new mindset as many upper level courses in the old major had required labs that duplicated the teaching of these skills. The result was a new program design that was leaner, clearer, and allowed for students to customize their course choices to align better with their career goals.

Leadership & Governance

- After this project, the Associate Provost for Student Success worked with the Conexión program lead and the Biology chair to think about how the PAIR cohort model could be paired with Conexión to create a UTRGV-specific approach to course and program redesign rooted in broader culture change. Building capacity of faculty to teach and design programs for student success, as well as building capacity of department chairs to lead for student success was a shared institutional priority.
- The Biology chair became the Associate Vice Provost for Faculty Affairs at the tail end of this project, which positioned us to create a strong shared commitment between Student Success and Faculty Affairs to incorporate leading for student success in chair development.

Stakeholder Engagement

- The leadership of the Biology chair and the Biology faculty participating in the ESP project are directly responsible for ensuring wide participation in this program redesign. The data was a powerful motivator for change, and the bi-weekly meetings kept the urgency for change top of mind.

Data Infrastructure & Agency

- Towards the end of this project, UTRGV got access to Steppingblocks, a platform which provides faculty and students with information about where our students (by major) are employed, what kinds of skills those companies are looking for, and what kinds of skills are graduates are putting on their resumes. This helps us identify skills gaps and create plans for ensuring that our graduates have what they need to be successful. We have had several training workshops for leadership, faculty, and advisors since.

Sustainable Resources

- Steppingblocks, Forage, Coursera Career Academy, and PeopleGrove are multiple platforms we have purchased and are beginning to educate faculty (and students) about.
- Steppingblocks and SeekUT data are now regularly included as part of our program reviews.
- All faculty now have individualized access to their course pass rate trends.

Assessment and Continuous Improvement

- The Associate Provost, Conexión lead, and Biology chair worked on (together and on separate projects) worked on multiple external and internal grants to further develop the UTRGV-specific model. We made plans to further refine and leverage the Conexión experience to help create exigency for more meaningful peer observations of teaching.

LESSONS LEARNED

- You must embrace the idea that change is (most) often met with resistance, particularly if the change is perceived by faculty as forced upon them. Faculty must be willing to support change for a successful outcome, and chairs and other institutional leaders must know how to lead for change.
- We learned how important taking a team approach is to achieving a goal as large as changing a degree. Achieving this goal successfully requires a strong team-based approach that recognizes the unique challenges encountered in each of these stages.
- We need to invest in capacity building for faculty leaders and faculty champions.
- We learned that our initial assumptions about what the data would tell us were not correct. We discovered that the gaps we assumed would be revealed in the data were not what we thought (or not as extreme) for students in our current degree.
- We’ve learned that “Biology” (the degree, but also the discipline as perceived by students) does not have a clear identity, so we need to tackle this problem with a multi-pronged approach, including redesign with a focus on skills, as well as (new, different) marketing.
- Focusing on the student experience is critical to program redesign.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Identification of Biology electives/hours and free electives/hours (concentration discussions) .
- Identify the courses for the Science Foundation (the other, PHYS, MATH CHEM) section of the degree (this will be the last part for completion of the degree).
- Submit degree changes for all necessary approvals for review by the institution, THECB, SACSCOC, and others.
- Course design working groups and individual course development for new courses that incorporate the newly identified cross-disciplinary skills and foundational content.
- Engage faculty in the course design working groups in a customized version of Conexión, our faculty development program.

PROJECT GOALS

The original focus of the project was to redesign the bachelor’s in social work curriculum. New accreditation standards needed to be incorporated into the degree, and there was a strong push from the dean to use this opportunity to redesign the curriculum to better meet students’ needs. Ultimately, the School of Social Work wanted to improve students’ preparation for the licensing exam, which is taken upon graduation, as well as prepare them better for graduate school.

TEAM MEMBERS

- **Jonikka Charlton (Team Lead)** – Senior Vice Provost of Student Success and Academic Affairs & Dean of the University College
- **Susan Brown** – Assistant Vice President, Strategic Analysis & Institutional Reporting
- **Vanessa Ibarra** – Clinical Assistant Professor
- **Jo Redcliffe** – Associate Professor & MSSW Program Director, School of Social Work
- **Laura Saenz** – Associate Vice Provost, Curriculum & Institutional Assessment
- **Lauren Serafy** – Lecturer I, School of Social Work
- **Leticia Villarreal Sosa** – Professor & Associate Dean for Research & Faculty Development, School of Social Work
- **Griselda Vasquez** – Clinical Assistant Professor, School of Social Work
- **Heather Vitek** – Lecturer II & BSW Program Director, School of Social Work

METRICS AND DATA

- Course grade distribution and GPA data – To understand if a specific course is causing issues and see if students are meeting the GPA requirement to enter the School of Social Work.
- Student flow model – This shows all colleges # of attempts by course. Used to determine the level and semester students left. Also used to find out if students are dropping out of Social Work prior to taking the practicum (480 hrs).
- Social Work stats course pass rate by prior math taken – The Social Work Stats course has one of the highest Social Work DFW rates. One question explored was whether there was a difference based on the core MATH course taken.
- Assessment data – Tie assessments to the courses in which competencies, skills, and knowledge are supposed to be taught.
- Curricular Analytics data – Showing complexity of the program.
- Workforce data – SteppingBlocks and SeekUT to look at workforce outcomes and skills

ACCOMPLISHMENTS TO DATE

Culture Change

- 16 Social Work faculty from all campuses (Edinburg, Brownsville, and Laredo) participated in a customized, extended version of Conexión designed to align values, goals, and approaches that would undergird the program redesign.

Leadership & Governance

- Social Work faculty who had been chosen to fill new roles as course leads, the program and field experience directors, as well as those serving on the school’s curriculum and assessment committees, were intentionally chosen to participate in Conexión based on the dean’s goal of building leadership capacity for teaching and course/curriculum redesign for student success.
- At the ESP symposium, the team, including the provost, agreed to convene to discuss the use of the PAIR Cohort-Conexión model for use in undergraduate program review, as well as institutionalizing Conexión with resources for the program lead and facilitators to be able to offer it annually to programs that want to engage in course/program redesign.

Stakeholder Engagement

- Conexión groups and facilitators from outside the discipline were strategically paired to bring an outside perspective to the small group discussions.
- Social Work faculty have partnered with the director of the Center for Teaching Excellence for several follow-up workshops on transparent assignment, feedback strategies, and rubric design.

Sustainable Resources

- We have tentatively identified some resources which may be reallocated for Conexión each year.

Assessment & Continuous Improvement

- The Conexión lead and several facilitators are working on a self-assessment model (as part of an internal seed grant) to guide faculty on identifying areas of inquiry related to their teaching they’d like to work on.

LESSONS LEARNED

- While it is to be expected when you build a cross-functional cohort of faculty and staff, faculty cohort members noted how “monumental” it was to have the ability to engage with others at UTRGV outside of the School of Social Work.
- As with prior ESP projects, it quickly became clear that we need better qualitative data about our students’ experiences in our classes/degree programs.
- One of the biggest challenges to student success (in many degree programs, but also) in Social Work can be traced to the lack of consistency in how courses are taught and assessed.
- Full-scale curricular transformation is not just about the disciplinary content. A shared understanding of what it means to have a “program” versus a collection of courses, as well as what “academic freedom” means in the context of teaching and learning is critical to successful curriculum redesign.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Compile all syllabi assignments and note differences across sections for the same course.
- Align EPAS 2022 (social work accreditation) competencies with courses.
- Design and deliver Conexión, our faculty development program, for Social Work faculty.
- Assign a lead faculty member to guide the review of syllabi and compare assignments.
- Review the degree plan and road map for needed modifications. Review field opportunities throughout the program. Ensure the program complies with EPAS 2022.
- Create consistent course rubrics to have consistency amongst professors and easy access for students.
- Review books used in courses to help us pinpoint outdated sources.
- Design and implement a short survey for those students who change majors from Social Work.
- Discuss lowering GPA requirement with BSW Committee. Discuss lowering the course grade for progression requirements. Assess the need for a course and exit exam and redesign the program assessment plan depending on the outcome.
- Explore and understand new capabilities of the new LMS to generate real-time data on students. Embed meaningful assessment tools/rubrics and Social Work-specific resources into the LMS. Train faculty on assessment through the LMS.

PROJECT GOALS

The aim of this project is to reduce the time-to-degree for URM students in three sustainable environment majors (Civil Engineering, Construction Science and Management, and Environmental Science) and increase the number and percent of female graduates. This project also aims to unite three programs for an interdisciplinary approach to holistically evaluate student success. The framework created and implemented in this project is expected to be used at scale for all programs at UTSA. The project evolved from the Advocacy Initiative—Enabling Clear Pathways to Degree Completion Task Force—and is aligned with UTSA’s goal to strategically expand transdisciplinary education and research with these programs.

TEAM MEMBERS

- **Mark Appleford (Team Lead)** – Associate Vice Provost for Undergraduate Studies
- **Ibukun Awolusi** – Assistant Professor, Civil Engineering and Construction Management
- **Amy Buechler-Steubing** – Senior Director of Student Success Strategic Planning and Administration & Director of Student Success Initiatives
- **Terri Matiella** – Professor of Instruction, Assistant Dean for Remote Instruction, Integrative Biology, College of Sciences
- **Katie Meersman** – Director of Strategic Initiatives, Academic Success and University College
- **Arturo Montoya** – Associate Professor, Associate Dean, Civil Engineering and Construction Management, College of Engineering and Integrated Design
- **Marcela Ramirez** – Associate Vice Provost for Teaching, Learning & Digital Transformation, Academic Innovation and Digital Learning
- **Steve Wilkerson** – Associate Vice Provost and Chief Analytics Officer, Institutional Research and Analysis

METRICS AND DATA

- **Civitas Learning: Illume Courses** – Allowed the team to access disaggregated data of student persistence directly in a program of study by cohort.
- **Civitas Learning: Inspire** – Allowed us to filter for specific student populations and question our data assumptions.
- **UT System dashboards** – Time-to-degree, degrees awarded, SCH earned and attempted, course modality success, and student exit survey results.
- **SeekUT earnings and future workforce data** – Identify baseline in graduate 1-, 5-, and 10-year earnings data.
- **BurningGlass: Labor insights** – Identify baseline in graduate 1-, 5-, and 10-year employer data.

ACCOMPLISHMENTS TO DATE

Institutional Identity

- Three (3) successful course transformations, leading to improved student experiences and course outcomes.

Culture Change and Strategic Alignment

- Strengthened collaboration across divisions of Academic Innovation, Student Success and Undergraduate Studies.
- Contributed to successful launch and completion of multiple initiatives supporting curricular innovation and data agency.
- Developed plan to test and implement use of early alerts, supporting students with just-in-time supports and targeted resource referrals.

Data Infrastructure & Agency

- Enhanced data dashboards with filters to support disaggregation of data.
- Developed Course Profile Report for faculty, including multiple data points to help faculty understand who is in their class and inform their course design, communication strategies, and pedagogical approaches.
- Developed collaborative process across Academic Innovation, Undergraduate Studies, Student Success, and Colleges to identify and prioritize course transformation projects.
- Developed co-curricular engagement dashboard prototype.

Sustainable Resources

- Developed course transformation rubric to identify and prioritize course and curricular redesigns.

Assessment & Continuous Improvement

- Established Data Agency and Assessment Work Team to build data agency across the student success ecosystem by developing resources, capacity, and practices for meaningful data use, assessment, and reporting.

LESSONS LEARNED

- The ESP project highlighted the value of the institutional research infrastructure and recent expansion in its mission to bring real-time (leading rather than lagging indicators) data access to the program directors, department chairs, and college administrators of our three identified programs. As part of the project several of our dashboards and infrastructure are now adding selectable fields to disaggregate student success data by race/ethnicity, gender, financial aid status, and residence to improve the student-centered approach.
- Beyond the original project goals, the ESP project uncovered a variety of unexpected obstacles and barriers that will be added to our long-term goals. Several of the core classes that are taken in the program of study before a student has been exposed to major-specific classes emerged with high DFW rates.
- A significant finding from the project in terms of the original analysis of URM and gender differences in degrees awarded was the impact of UTSA’s onboarding to final major pathways. An analysis of early student stop-out data demonstrated the need to connect programs with their admissions pipeline.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Identified specific courses (two in each major; Environmental Science, Civil Engineering and Construction Science and Management) with the highest correlation to student persistence gaps by characteristic.
- Ranked these courses for course transformation support with Academic Innovation.
- Created a first draft institutional-level scorecard for department, college and institutional annual review of student degree progress.
- Built a co-curricular support evaluation of programs and started an LMS module to integrate into key major courses with Career and Engaged Learning.
- Initiated a multi-year, University-level, core redesign to build real-time SLO indicators into core assessment.
- Started initial stakeholder analysis to build a quick-view module into our LMS to inform faculty instructional practices and use of inclusive pedagogy.
- Initiated project to develop co-curricular engagement dashboard prototype.
- Started a redesign of the student experience survey for qualitative data supplement from a student-centered perspective.

The University of Texas at San Antonio

Phase 2 Project: Information Systems / Cybersecurity – Student Success and Academic Progress

PROJECT GOALS

Across the nation, there is dire need for information and cybersecurity professionals. The demand is stronger than the supply. One way to increase these professionals is by addressing the gaps in student enrollment by student characteristics. The Information Systems and Cybersecurity enrollment has underrepresentation by ethnic minorities and females. The enrollment of underrepresented students in the Information Systems and Cybersecurity Program at UTSA has followed some of the same trends that are seen across the nation. UTSA has made significant investments in the new Data Center which could open up more opportunities. This project will analyze these programs at UTSA for noteworthy trends in enrollment and academic performance.

TEAM MEMBERS

- **Mark Appleford (Team Lead)** – Associate Vice Provost of Undergraduate Studies
- **Lauren Apgar** – Assistant Director, Analytics and Modeling
- **Mark Leung** -- Associate Dean of Undergraduate Studies, College of Business
- **Amy Buechler-Steubing** – Senior Director of Student Success Strategic Planning and Administration & Director of Student Success Initiatives
- **Katie Meersman** – Director of Strategic Initiatives, Academic Success and University College
- **Marcela Ramirez** – Associate Vice Provost for Teaching, Learning & Digital Transformation, Academic Innovation & Digital Learning
- **Yvette Sands** – Assistant Professor of Practice, Information Systems and Cybersecurity
- **Candy Sikes** – Associate Professor of Practice in Finance

METRICS AND DATA

- **UG Enrollment IS/Cyber 2018 -2022 Dashboards** – Allowed the examination of first-generation enrollment, as well as enrollment by race, gender, and other student characteristics.
- **IR Dashboards:** Course modality student success, Student Exit Survey, SCH attempted/earned, time to degree, degrees awarded.
- **Lightcast Labor Insights & SEEK UT** - Identify baseline in graduate 1-, 5-, and 10-year employer data.
- **Student Exit Survey** – Student campus climate data to link student satisfaction with program features.
- **Civitas Learning (Illume Courses):** Allowed the team to access disaggregated data of student persistence directly in a program of study by cohort.

ACCOMPLISHMENTS TO DATE

Culture Change

- Created a shared data infrastructure following students from recruitment and admissions to post graduate outcomes with emphasis on identifying when and where students leave a program.
- Initiated the largest change to the core curriculum in the College of Business impacting ~8K students directly and a further ~2K indirectly through minors/certificates.

Leadership & Governance

- Embedded program administrators in early student onboarding decision processes and created new key performance indicators for post-graduate student success.

Strategic Alignment

- Framed the creation of a new Provost initiative around the use of micro-credentials at scale for the university and surfaced needed infrastructure.

Stakeholder Engagement

- Expanded the role of College Leadership in cross-disciplinary curriculum innovation.

Data Infrastructure & Agency

- Established a university framework to evaluate Communities-of-Practice and establish program and college goals as part of reportable KPIs.

Sustainable Resources

- Developed initial scope and framework for our mirco-credential taskforce by piloting a tracking system.

Assessment & Continuous Improvement

- Established the role of an institutional policy analyst to identify and explore student success barriers and lead curricular or structural review working groups.

LESSONS LEARNED

- Enrollment in IS/Cyber programs continues to follow national trends (low enrollment). There is a need to increase the awareness and enrollment of females and minorities in these programs.
- Need to focus on retaining first-generation students.
- Need to focus on encouraging female student enrollment and maintaining enrollment.
- Support the online cybersecurity program to focus on retention.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Provide data to broaden and diversify the applicant pool.
- Use College Board data to find students sitting for SAT tests who are interested in the majors for recruitment purposes.
- Collect community college enrollment in these CIPs by gender and race/ethnicity.
- Incorporate high school student interest and engagement metrics with UTSA pre-application/admission to the university into the recruitment funnel dashboard.
- Use SeekUT earnings data and match with student learning transcripts to assess the effectiveness of experiential learning in ameliorating earnings gaps for graduates in the programs.
- Provide support in developing a faculty activity tracker to identify, assess, and monitor gaps in engagement with Academic Innovations programming and other teacher trainings.
- Create a cohort of faculty teaching finance, accounting, and cyber information systems for a Community of Practice.
- Identify leading student persistence and retention indicators at the course-level and implement early alerts using LMS system.
- Offer ACUE micro credential “Fostering a Sense of Belonging” cohort opportunity for finance, accounting, and cybersecurity cohorts.

Phase 3 Project: Designing a Blueprint for Microcredentials in the Core Curriculum

PROJECT GOALS
In this third phase, our team wanted to look at an institutional level problem linked with how our core curriculum impacts career preparation. There is a need for the core curriculum to better link and reflect with marketable skills. While the core curriculum meets the state requirements through regular assessments, our team realized that the measure of its effectiveness is best demonstrated by the student's understanding and communication of its skills, which closely align with the NACE core competencies for career preparation. In a parallel project, our UTSA leadership has launched a credentialing initiative, and the team pivoted our project to integrate credentialing into these early core classes.
TEAM MEMBERS
• Mark Appleford (Co-Lead) – Associate Vice Provost for Undergraduate Studies • Amy Buechler-Steubing (Co-Lead) – Associate Vice Provost for Strategic Initiatives & Learning Innovation, Division of Student Success • Palden Lama - Associate Professor of Computer Science, Computer Science Department • Tiffany Robinson - Assistant Vice Provost & University Registrar, Strategic Enrollment Department • Michael Rushforth – Assistant Dean for Experiential Learning Initiatives, College of Liberal and Fine Arts • Rebecca Schroeder - Interim Associate Dean, University College • Tammy Wyatt - Senior Vice Provost, Student Success • Ginnifer Cie Gee - Associate Vice Provost, Career Engaged Learning • Bryan Heard - Director of Operations, Career Engaged Learning
METRICS AND DATA
• Civitas Learning: Inspire – Insight into student major changes, academic performance, and has a persistence prediction algorithm. • Civitas Learning: Illume – Disaggregation of student persistence data by program of student and student cohort. • Stepping Blocks – Review of post-graduate employment and skills required by those employers. • UT System dashboards – Review of time-to-degree, degrees awarded, and SCH attempted over time. • SeekUT earnings data – Exploration of earnings data for graduates. • Vmock – Reviewing how students report and articulate the core curriculum skills they receive. • Program/Industry advisory panel feedback – A formal and consistent feedback mechanism from alumni and industry partners. • Student Surveys – Student perceptions of core competencies and their ability to prepare them for their career.

ACCOMPLISHMENTS TO DATE
Leadership & Governance • Launched Microcredentials Standards Alignment Council (SAC) to develop set of recommendations and road map for implementing existing microcredentials. • Initial SAC recommendations and road map approved by Provost. • Implemented re-organization to bring Career Engaged Learning and Undergraduate Studies within the Division of Student Success. Strategic Alignment • Developing 5-year strategic plan for Division of Student Success, emphasizing strategic priorities: Thriving Students, Future-Ready Roadrunners, Empowered Leaders, Collaborative Partnerships, and Operational Excellence. Stakeholder Engagement • Strengthened connections and collaborations among faculty and Academic Affairs staff and administrators through work of SAC. Sustainable Resources • Establishing Strategic Initiative leadership role to support project management, data and reporting, and momentum of ESP projects moving forward. • Developed initial Microcredentials Institute launching summer 2025; developed through Academic Innovation and Student Success partnership.

LESSONS LEARNED
• Regular meetings to discuss data and connect the dots between ideas, initiatives underway, and faculty, staff, and administrators on the project team have strengthened connections which will support ongoing collaboration moving forward. • Adopting a sandbox approach—where project team members had the freedom to explore various data sources of interest early on and for an extended period proved beneficial. • While the sandbox approach was valuable, additional guidance and training on platforms was essential. Team members appreciated demos on SteppingBlocks, OIR dashboards, Territorium, and other data sources to enhance data literacy, enabling us to extract more meaningful insights. • Mapping data sources to specific research objectives can streamline the process and ensure that efforts contribute directly to project goals.
OUTPUTS AND OUTCOMES IN ACTION PLAN
• Our action plan includes strategies to build student and faculty awareness and increase access to and engagement with high-impact practices early. These actions and subsequent outcomes can also impact post-graduation outcomes. • Develop and implement a comprehensive core curriculum microcredential framework. • Equip and empower faculty to enhance the alignment of coursework with career skills and competencies by establishing a comprehensive resource repository integrating training modules, templates, exemplars, and consultations. • Implement and integrate a holistic student success framework that fosters core curriculum skill articulation, promotes consistent career resource utilization, and encourages active engagement with resources and services. • Establish a mentoring model that empowers students to effectively articulate and demonstrated the skills they have developed and experiences gained in core courses. • Integrate industry-aligned microcredentials within specific core courses to enhance course outcomes, persistence, and graduation rates. • Establish a robust framework for continuous and structured employer engagement that supports industry and core curriculum alignment, integrates experiential learning opportunities, and enhances students’ durable skills and employability.



Phase 3 Project: Re-designing Developmental Reading and Writing Co-requisite Instruction for First-Year Writing

PROJECT GOALS

We want to solve how to best educate and remediate the drastically increasing population of incoming freshmen who are non-TSI compliant in reading and writing (meaning they scored below the levels set for college readiness). Post-pandemic, the number of non-TSI compliant students in reading and writing has increased by over 400%, going from 64 enrolled in co-requisite instruction in fall 2019, to 294 in fall 2023, and 333 in fall 2024. In our original plan, we noted in our problem statement that the current “one-size-fits-all approach” for co-requisite instruction in developmental reading and writing is “neither effective nor efficient” and we proposed to “replace the current lecture-based, 3-credit course with a variable credit developmental writing lab.”

TEAM MEMBERS

- **Elizabeth Tasker Davis (Team Lead)** – Chair, Department of English
- **Lesa Beverley** – Chair, Mathematics
- **Amy Camacho** – Assistant Director of Analysis and Projects, Office of Institutional Research
- **Meta Henty** – Lecturer and Assistant Coordinator of First-year Writing
- **Joyce Johnston** – Associate Dean, College of Liberal & Applied Arts
- **Tricia Lance** – TSI Coordinator/Academic Advisor
- **Jason McIntosh** – Assistant Professor and Coordinator of First-year Writing, Department of English
- **Jeana Paul Urena** – Chair of Languages, Culture, and Philosophy

METRICS AND DATA

- **2-Year Summary of Grade Distribution in 1301 & 1302 with/without dev-ed support** – Compares 1301 and 1302 grades for students in coreq and not in coreq.
- **TSI status by admit type** – Understanding which level students are entering into courses.
- **Student Outcomes for students who failed developmental reading and writing** – Looked at semester GPA, retention rates, etc.
- **FTUG Grade Distribution by Course Participation** – Allows us to drill down on student success/failure and compare TSI-compliant to non-compliant.
- **High schools by TSI Writing Compliance** – Shows variation in high schools’ TSI pass rates.
- **Survey of SFA instructors** – Gained knowledge from experienced instructors to inform action plan
- **Info from SFA Modern language labs, developmental math** – Shows how labs are handled in other disciplines.
- **Literature Review** – Current research on students’ non-cognitive behavior and dev ed writing research to understand the external factors influencing students.

ACCOMPLISHMENTS TO DATE

1. Major renovation of the Laz Corley Writing Lab. The physical space design was based on third-space writing theory.
2. ENGL 0199 writing lab curriculum approved, designed, and launched. A sustainable staffing model was implemented based on the pedagogical role of “writing coaches”; coaches include full-time faculty specialized in first-year writing, graduate teaching assistants, and undergraduate tutors.
3. In Fall 2024, the lab served 333 students (including 312 first-time freshman). All students were enrolled for two credit hours. Compared to Fall 2023, pass rates increased by 1%, failure rates decreased by 1%, and instructional costs decreased by 35%.
4. Implemented a sustainable model for dev-ed research, including year-round data collection and summer funding for faculty stipends and graduate assistantships.
5. Built a Developmental Reading & Writing Dashboard to track enrollment, grades, and longitudinal data on student performance. We continue to enhance the dashboard with additional views and to improve data accuracy.
6. The project directly supports SFA’s strategic initiative to maximize first-time freshman passing ENGL 1301 and 1302 in their first-year of college. This has contributed to a culture change at SFA by giving first-year student success in reading and writing greater visibility.
7. An alliance of stakeholders from Academic Affairs, the Student Success Center, and the Office of Strategic Analytics & Institutional Research has made tracking first-year student success in reading and writing possible.
8. Next steps:
 - Summer 2025: use assessment findings to drive revisions to curriculum, operations, and future data collection efforts.
 - Fall 2025: implement variable credit for the lab.

LESSONS LEARNED

- Viewed from many angles, the sharp increase in TSI non-compliant students appears to be, at least partially, a result of the learning losses resulting from the COVID pandemic. The pandemic brought about school closures and less face-to-face learning time in secondary schools throughout the nation.
- Beyond the pandemic, other factors contributing to the increase of students non-TSI compliant in reading and writing likely include:
 - SFA being SAT/ACT test-optional
 - The lack of physical books, sustained reading assignments, and process-based writing instruction in secondary schools
 - An emphasis on standardized testing over critical engagement
 - In at least some high schools, it appears that students who are not enrolled in AP or dual credit courses do not receive adequate instruction in reading, writing, and noncognitive skills, such as time management, work habits, and communication.
 - Shifting student attitudes about the value of reading & writing skills
- Our instructor Qualtrics survey and focus group bear out findings from research in first-year writing studies, particularly students’ deficits in noncognitive skills and motivation levels--a phenomenon currently being reported in national news as part of the mental health crisis occurring among young people today.
- Absenteeism continues to be a rampant problem among all grade levels post-COVID.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Provide a clear, structured framework for the developmental writing lab aligned with the goals of supporting non-TSI compliant students in their ENGL 1301 coursework.
- Create an engaging, supportive, and student-centered environment that fosters learning and collaboration. The physical space should be designed to accommodate diverse learning activities and facilitate individualized and small group interactions.
- Detail the lab staff coaching model and workflow to ensure efficient and effective operation of the lab.
- Design and conduct professional development training to equip lab staff and ENGL 1301 co-req instructors with the skills and knowledge to effectively support students in the ENGL 0199 lab and ENGL 1301.
- Increase student engagement by connecting students’ current literacies with collegiate work habits and literacies.
- Collect student data in order to evaluate the effectiveness of the ENGL 0199 lab and identify areas for improvement.
- Report lab status to key external stakeholders (those outside the lab) to keep them informed about the progress and effectiveness of the ENGL 0199 lab.

The University of Texas at Tyler

Phase 1 Project: Moving Through the Mathematics Pipeline – Engineers Pave the Way for STEM Majors

PROJECT GOALS

The University of Texas at Tyler's mission statement begins by explicitly naming our commitment to student success by serving the educational and public interest of East Texas and beyond. We seek to decrease the percentage of STEM students earning DFWs in their mathematics courses on the first attempt. The mathematics courses are typically significant blocking and delay factors for our STEM students (38.6% of our undergraduate population) in completing their respective degrees. We will begin our efforts by examining our engineering degrees. These include Chemical Engineering, Civil Engineering, Construction Management, Electrical Engineering, and Mechanical Engineering.

TEAM MEMBERS

- **Colleen Swain (Team Lead)** – Associate Provost, Academic Success and Dean of Undergraduate Studies
- **Carlos Alvarez** – Assessment Coordinator, College of Engineering
- **Regan Beckham** – Associate Professor of Mathematics
- **Jessica Collins** – TSI Coordinator, Enrollment Services
- **Javier Kypuros** – Dean, College of Engineering
- **Lauralee Meyer** – Director of Academic Support, Academic Success
- **Ken Wink** – Associate Dean, College of Arts and Sciences

METRICS AND DATA

- **TSI Math Basics and Math Requisite Pathways** – Used to work on determining how our students are deemed “Calculus ready.”
- **Math and Science Courses Supported by Academic Success** – To determine how engineering students were using SI and Tutoring for the mathematics courses before the start of the pandemic.
- **Graduation Rate by Grade Earned and Predictive Cutoff** – These data provided us insight into the influence of grades in Calculus I (MATH 2413), Calculus II (MATH 2414), and University Physics (PHYS 2325).
- **Passing Grades by COE Majors** – These data provided us insight into the grade distribution between the FTIC and transfer students in Calculus I, Calculus II, and University Physics.
- **Calculus I Analysis** – This initial analysis enabled us to determine whether there were statistical differences in the grades earned by gender and race.
- **First Math Attempt** – Engineering majors’ grades on first attempt in mathematics courses.
- **Engineering Curricular Analytics Data** – To determine gateway courses, as well as insight into the most central courses of the program.

ACCOMPLISHMENTS TO DATE

1. Institutional Identity – Student success is the first priority in UT Tyler’s Strategic Plan Framework.
2. Culture Change – This project enabled trust-building and more awareness of the needs of different students between the mathematics department and engineering departments.
3. Leadership & Governance – Following this project, the Dean of the College of Engineering began modeling the use of data to make data-informed decisions to his leadership team.
4. Strategic Alignment – This project meshed with the Student Success Priority’s first goal of developing initiatives to improve students’ success in courses, retention, and degree completion.
5. Stakeholder Engagement – The Dean and Assessment Coordinator of the College of Engineering were highly engaged and active within this project. The Dean saw this as a way for him to model desired knowledge, skills, and dispositions to his faculty and staff.
6. Data Infrastructure & Agency – This project resulted in the College of Engineering doing a deep dive into their student data to determine what grade point average is needed to progress through the program and graduate. This allows advisors and faculty to work with students when they are approaching this critical GPA tipping point.
7. Sustainable Resources – The College of Engineering increased ENGR 1204 from 2 to 3-credits to ensure that all engineering students have common student success knowledge and experience. This required a restructure of the program to keep the same number of credits overall. By making this change, engineering students are aware of many of the needed resources, taught strategies that can lead to their success, and more.
8. Assessment & Continuous Improvement – The College of Engineering has an amazing assessment coordinator who collects data from Canvas and other locations for the Dean to share at the monthly leadership meetings with department chairs and others. He enables the dean and department chairs need to make data-informed decisions.

LESSONS LEARNED

- Our work to address the challenges in the mathematics tunnel must be comprehensive and explore ways to support students, even when they have the academic credit for the course but not the content mastery.
- Academic Student Success Resources, specifically tutoring and supplemental instruction, are not being used by engineering students.
- FTIC and transfer students have different experiences in the engineering curriculum due to where they come into the formal engineering program.
- Our latest data pull provides strong evidence that engineering students need to earn a grade of A or B in Calculus I to be successful in subsequent mathematics and engineering courses.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Reclassification of Multivariate Calculus (Calculus III) from 3000 level to 2000 level.
- The College of Engineering is using Student Success funds to support engineering students enrolled in Calculus I, II, or III.
- The College of Engineering is working to establish zero-credit recitations leveraging interactive software and graduate teaching assistants as coaches. The recitations will be linked to respective Calculus courses and to engineering courses students commonly co-enroll in. The recitations will include applications that highlight the use of Calculus concepts and methods in subsequent courses for which the respective Calculus is a prerequisite. This was not as successful as hoped.
- Continued conversations by the Department of Mathematics on the data for mastering content in current and subsequent courses.
- Explored curricular products that can help support students with mathematics and physics content in courses with high centrality within the major.
- Planning to launch Engineering Student Focus Groups that include students who changed their major out of engineering to determine the impact of the mathematics tunnel.
- Planning to continue examining the effectiveness of different curricular products to address content gaps.
- Planning to form focus groups of Mathematics and College of Engineering faculty to hear insights and concerns

The University of Texas at Tyler

Phase 2 Project: Rise as One -- TSI at UT Tyler

PROJECT GOALS

The increase in TSI-liable students has resulted in needing a substantial number of developmental education sections in mathematics and English, hiring additional and placing faculty or adjuncts in these courses, and covering the cost of instruction. Because of these factors, UT Tyler faculty, administration, and Academic Success and Undergraduate Studies staff focused our work for the Exemplary Student Pathways Project Phase 2 to better understand TSI students and the curriculum they experienced in their developmental education courses.

TEAM MEMBERS

- **Colleen Swain (Team Lead)** – Associate Provost, Academic Success and Dean of Undergraduate Studies
- **Ashley Bill** – Executive Director of Advising and Academic Onboarding
- **Sarah Bowdin** – Assistant Vice President for Academic Success
- **Jo Chhay** – Academic Success Coordinator
- **Annamary Consalvo** – Associate Professor of Literacy, Department of Education
- **Miriam “Mimi” Rowntree** – Assistant Professor of Instruction, Department of Literature and Languages

METRICS AND DATA

- **TSI Student Survey** – Understanding the experiences our TSI-liable students faced with our current programming allowed us to better understand how we may better support them.
- **TSI Diagnostic Scores from College Board** – To better understand the range of student skills and abilities in the TSI component areas.
- **Demographic Exploration of TSI Liable Students in Fall 2022** – Identify academic disparities between student groups and highlight opportunities for interventions to assist.
- **Faculty Review of ENGL 1301 Summary Assignment** – To inquire into TSI-liable students’ specific deficiencies in the areas indicated by the TSI.
- **Metrics for TSI Liable vs. TSI Complete students** – Looked at results in subsequent courses, retention rates, first-semester academic standing and GPA.

ACCOMPLISHMENTS TO DATE

1. **Institutional Identity** – With our new President, there is the commitment for the success of our students, patients, and community. Within UT Tyler’s Strategic Plan, student success is the first priority. Because some students need significant remediation to succeed in future courses, this project also aligns with the second priority of excellence in teaching.
2. **Culture Change** – The students UT Tyler admits are ours and we have a promise to keep upon their admission. Our campus now recognizes that the TSI is only a single indication of the student’s ability to be successful in college and being TSI liable is not necessarily the student’s fault. We must provide ways to bring them to a level where they can be successful in their desired major.
3. **Leadership & Governance** – This project enabled the President, Cabinet, Provost, and Deans from multiple colleges to come together to work on issues related to supporting our TSI liable students.
4. **Strategic Alignment** – This project aligns with the first goal in the student success priority to develop initiatives to assist with student retention and degree completion. It also aligns with two goals in the excellence in teaching priority. The goals are to enhance teaching practices and strengthen faculty-student interactions and increase the quality of academic and cocurricular programs across all disciplines.
5. **Stakeholder Engagement** – There is a renewed commitment to getting our students TSI complete and able to be successful in subsequent courses by our dean, chairs of mathematics and English, and the faculty teaching within these courses with our TSI liable students.
6. **Data Infrastructure & Agency** – Faculty are now getting descriptive statistics of their developmental education courses in order to best understand the audience. We are also creating a dashboard to enable us to better track the success of our TSI students to determine the effectiveness of the teaching strategies in comparison with non-TSI liable populations.
7. **Sustainable Resources** – As a result of this project, we have expanded credit-bearing mathematics options for students. In addition, English hired a faculty with expertise in developmental education.
8. **Assessment & Continuous Improvement** – As we pilot different offering patterns and ways to support students, we will be able to assess the impact on our students academic progress and their retention. This will enable us to determine whether these strategies should be used with other students who come into different disciplines with gaps in knowledge.

LESSONS LEARNED

- The lack of data (TSI diagnostic scores) caused UT Tyler to not serve our TSI-liable students as well as we should. Bringing in multiple groups to discuss data and uncover what was available but not being entered into PeopleSoft enabled us to better serve and expand opportunities for TSI-liable students. This allows us to serve students according to their needs instead of the one-size fits all approach we had.
- Coming together as partners and providing data to our departments pointed them to a need for change. This created a sense of ownership by the faculty and spurred creative thinking to address problems apparent in the data. Our Department of Mathematics developed the boot camp approach as they examined the diagnostic scores of our MATH 0303 students and saw where they needed skills in foundational mathematic concepts.
- Once learning that the TSIA2.0 was normed in Texas and after looking at the high percentage of students of color who were TSI liable, we knew UT Tyler had to work with our local high schools. This is not blaming our K12 colleagues but one where we must see the students of East Texas as ours and take ownership of their learning. Our student population has many students who are considered traditionally marginalized (e.g., Pell-eligible, rural, first-generation, and students of color), and we must support them in becoming TSI complete. Failure is not an option because these students deserve the opportunity to earn a higher education credential. TSI-liable students are all ours, and we must Rise as One!

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Create a process to share TSI diagnostic scores to customize developmental education for students.
- Provide faculty with foundational knowledge about students in their courses. Faculty teaching developmental courses have no idea of the range of abilities in their courses. Therefore, they cannot always provide the needed instruction due to a lack of information.
- Revise curriculum for Math 0303.
- Dive deeper into ENGL 1200 and 1301 experience. English faculty noted they really weren’t sure of the intended curricula for ENGL 1200 and that an examination of the TSI reading and writing content was needed for better alignment with course content.
- Create an ongoing analysis of TSI-Liable students, pre- and post-matriculation to UT Tyler.
- Support faculty working with TSI-liable students. They report feeling underprepared and unsure of how to best help students.

The University of Texas at Tyler

Phase 3 Project: Improving Student Progression Through Degrees –
An Exploration of the Causes and Strategies to Address
High Course DFW Rates in Six Degree Programs

PROJECT GOALS

UT Tyler will explore the grade distributions and Curricular Analytics data in gateway courses from the largest majors in each of the university’s four colleges and two schools with undergraduate students. This project aligns with UT Tyler’s Strategic Plan to focus on improving student retention and persistence in earning their degrees. Specifically, UT Tyler seeks to understand the impact of gateway courses on student decision points (e.g., changing majors and attrition), appropriate curricular and pedagogical approaches, and the complexity for students taking gateway courses in their major. The six undergraduate majors in the project are: Nursing, Biology, Psychology, Kinesiology, Mechanical Engineering, and Management.

TEAM MEMBERS

- **Colleen Swain (Team Lead)** – Associate Provost, Academic Success and Dean of Undergraduate Studies
- **Shih-Feng Chou** – Associate Professor, Mechanical Engineering Department
- **Jared Dickson** – Lecturer, Biology Department
- **X. Neil Dong** – Professor, Kinesiology Department
- **Gina Dudley** – Clinical Instructor of Nursing
- **Brandy Meadows** – Lecturer, Management Department
- **Yvonne Ralph** – Assistant Professor, Psychology Department

METRICS AND DATA

- **Grade distribution tables (Fall 2019- Fall 2023)** – Enabled us to determine our gateway courses and whether courses look different based on instructor, delivery mode, and term taken.
- **Curricular Analytics Map within the discipline and complexity scores from other Institutions with the same major** – Enabled us to look at how students progress through the degree in the order recommended by the faculty.
- **UT System dashboards** – Enabled us to look for patterns, such as how our majors might perform differently in critical courses if the semester is considered, the impact of repeating a course on graduation.
- **Questions to help in conversations with departments** -- List of questions generated from data the departments could consider in their discussions.

ACCOMPLISHMENTS TO DATE

1. Institutional Identity – UT Tyler’s President, Dr. Julie V. Philley, noted that our mission is to advance the dreams and goals of our students and patients, and to positively enhance our community. This means the success of our students, patients, and community are paramount.
2. Culture Change – The UT Tyler community is truly coming to see each student as ours, a valued person with whom we can positively impact by walking with them in getting their degree and desired next step in life.
3. Leadership & Governance – Our leadership is putting structures in place that enable structures and infrastructures to better support our students. There is also a renewed set of accountability with this commitment to our students.
4. Strategic Alignment – This project is dedicated to improving the teaching and curricular structures in gateway courses. It directly ties to our first and second priorities of our strategic plan. For the student success priority, our course requisite examination addressed the first goal of the priority. For the excellence in teaching priority, this project explored the second goal of increasing the quality of the academic programs.
5. Stakeholder Engagement – Faculty are responsible for the curriculum and they were highly engaged in this process. Each faculty member participating in the project was vital to the success of ideas being adopted by their department.
6. Data Infrastructure & Agency – Faculty explored numerous databases to inform their curricular decisions. This was powerful and faculty are asking for more data about their programs. This has called for more dean, chair, program coordinator, and chair training on the different data dashboards that will help faculty serve students well.
7. Sustainable Resources – Our dashboards are becoming valuable resources to faculty. These are vital in curriculum planning and modifications.
8. Assessment & Continuous Improvement – Many of the activities and questions used in this project are part of the internal undergraduate program reviews conducted once every five years.

LESSONS LEARNED

- Every undergraduate program in the ESP project requires students to earn a grade of C or better in each course in the major. Yet, many of those courses are isolated (not being a prerequisite to another course), technical electives, or general electives.
- Prerequisites can make courses more challenging for students, particularly our transfer students.
- Faculty knowledge and understanding of available data are critical for student success efforts.
- Faculty and other units, such as Academic Success and Undergraduate Studies, must communicate regularly to ensure that reports generated are shared more broadly across the institution.
- Time is needed to carefully explore and consider the complexities of student success datasets. Faculty and departments need time to study and reflect before building action steps.

OUTPUTS AND OUTCOMES IN ACTION PLAN

- Monitor grade distributions (DFWs) of courses to determine our success and whether the efforts to strengthen the teaching, reduce barriers, and provide needed support to students are working.
- Improve the pedagogical skills of faculty.
- Examine academic departments’ policies on requiring a grade of C or higher in each course.
- Nursing: Examine the structure of the Nursing degree using DFW rates, when these courses are offered in the program, and how this skews the retention policy. Review retention rates and their correlation to success in high DFW courses.
- Biology: Build basic biological knowledge and technical writing skills in General Biology I.
- Psychology: Reconsider the decision to abandon the BA in favor of only offering a BS in psychology as was previously planned.
- Kinesiology: Revise the curricular map and optimize the prerequisites for courses in undergraduate programs in Kinesiology. Provide departmental tutoring sessions for gateway courses.
- Mechanical Engineering: Keep DFW rates below 20% in gateway courses. Review tracks and sequencing to update content and determine pathways for streamlining the program.
- Management: Support students in mathematics courses early in the program, as they are prerequisites for many management courses.