



TTUHSC EL PASO

Texas Tech University Health Sciences Center El Paso



QUALITY ENHANCEMENT PLAN

Team-based

Effective

Collaborative

Healthcare

READY!

Submitted to the

Southern Association of Colleges and Schools

Commission on Colleges

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Name of the Institution

Texas Tech University Health Sciences Center El Paso

Address of the Institution

5001 El Paso Drive, El Paso, TX 79905

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Executive Summary

Texas Tech University Health Sciences Center El Paso (TTUHSCPE) is a comprehensive health sciences center with undergraduate, graduate, and professional programs in biomedical sciences, medicine, dental medicine, and nursing. The mission of TTUHSCPE is to *“improve the lives of people in our State and our community by focusing on the unique healthcare needs of socially and culturally diverse border populations through excellence in integrated education, research, and patient care.”* In alignment with this mission, TTUHSCPE has a history of success in promoting the intellectual development of students in their chosen healthcare fields.

A significant component of TTUHSCPE’s mission is to enrich the lives of others by educating students to become collaborative healthcare professionals. The institution continuously strives to improve traditional indicators of student success while also promoting the interdisciplinary development of students. In addition to producing healthcare professionals who are knowledgeable in their respective disciplines, TTUHSCPE aims to develop engaged and productive members of future healthcare teams who are prepared to meet tomorrow’s healthcare needs through interdisciplinary collaboration. For these reasons, the current Quality Enhancement



Plan (QEP) will focus on Interprofessional Education (IPE). The five-year project will be known as the “TECH Ready” initiative. All TTUHSCPE educational programs will participate in this initiative.

The mission of the TECH Ready initiative is to prepare TTUHSCPE graduates for success in dynamic healthcare environments through the acquisition of knowledge, skills, attitudes and behaviors necessary for successful interprofessional teamwork. The QEP topic emerged from several sources of data—surveys, focus groups, utilization statistics and strategic planning processes. Multiple individuals across TTUHSCPE were involved in the development of the QEP topic, including students, faculty, staff, and administrators. These stakeholders will also be involved in implementing the proposed learning strategies in order to accomplish the desired student learning outcomes.

Student Learning Outcomes. Students who participate in the TECH Ready initiative will be able to:

1. Work with individuals of other professions to facilitate mutual respect and shared values.
2. Use the knowledge of one’s own role and those of other professions to assess and address the healthcare needs of patients and to advance the health of populations.
3. Communicate with patients, families, communities, and professionals in health and other fields in a responsive and harmonious manner that supports a team approach to the promotion of health and the prevention and treatment of disease.

4. Apply relationship-building values and principles of team dynamics to effectively plan, deliver and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable.

Assessment. A combination of direct and indirect measures will be used to assess the achievement of these student learning outcomes. Successful achievement of desired outcomes will contribute to the broader goal of preparing students to navigate the challenges of complex healthcare systems and enter the workforce ready for interprofessional collaborative practice that helps to ensure the health of individuals and populations.

Strategies for Implementation. Achievement of the stated student learning outcomes will require reformation of TTUHSCEP's current support and environment for IPE. Thus, implementation of the TECH Ready initiative will focus on the following strategies:

- TTUHSCEP will implement IPE educational programming and establish IPE core requirements for the completion of all TTUHSCEP academic programs.
- TTUHSCEP will establish an organizational support structure for IPE. Central to this infrastructure will be the institutional level Office of Interprofessional Education (OIPE).
- TTUHSCEP will provide central coordination of IPE activities, to include the shared experience and IPE activities beyond the required IPE core requirements, in order to facilitate, monitor and track student participation in IPE across all TTUHSCEP schools.

Institutional History and Context for IPE. The history of TTUHSCEP began more than 40 years ago when it was founded as a regional campus of the Texas Tech University School of Medicine. The 61st Texas Legislature authorized the Texas Tech University School of Medicine in May 1969 as a multi-campus institution with its administrative center in Lubbock, Texas and regional campuses in Amarillo, El Paso, and the Permian Basin region. In 1979, the original charter was expanded, transforming the School of Medicine into the Texas Tech University Health Sciences Center. This allowed for the establishment of the School of Nursing (1979), the School of Health Professions (1981), the School of Pharmacy (1993), and the Graduate School of Biomedical Sciences (1994).

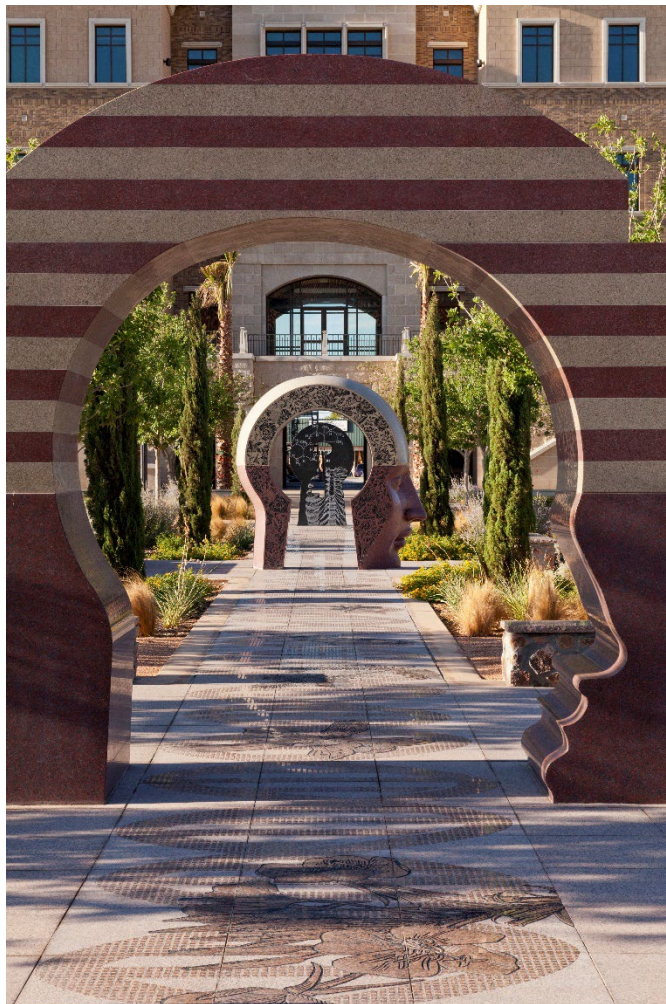
In 2009, the Paul L. Foster School of Medicine (PLFSOM) and in 2011, the Gayle Greve Hunt School of Nursing (GGHSON) were established on the regional El Paso campus to offer Doctor of Medicine (MD) and Bachelor of Science in Nursing (BSN) degree programs, ultimately leading to the formation of TTUHSCEP. In May 2013, Texas Governor Rick Perry signed Senate Bill 120, which established TTUHSCEP as the fourth independent university of the Texas Tech University System. On July 1, 2014, Richard Lange, M.D., M.B.A., assumed his role as founding president of TTUHSCEP and dean of the Paul L. Foster School of Medicine. The institution received its first direct appropriations by action of the 84th State of Texas Legislature for fiscal years 2016 and 2017.

In August 2014, the Texas Higher Education Coordinating Board (THECB) officially acknowledged the creation of the L. Frederick Francis Graduate School of Biomedical Sciences (FGSBS), and in January 2016 approved the Master of Science (MS) degree in Biomedical Sciences. In April 2017 the THECB approved the addition of a Master of Science in Nursing (MSN) degree to the program offerings in the GGHSON. In August 2018, the Texas Tech University System Board of Regents authorized the process to establish the Woody L. Hunt School of Dental Medicine (WLHSDM), and in October 2019 the THECB approved the Doctor of Dental Medicine (DMD) degree program to be offered by the WLHSDM, making it the fifth degree program in TTUHSC El Paso's program inventory. In 2018, after being awarded initial accreditation

by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Department of Education recognized TTUHSCEP as a Hispanic Serving Institution (HSI). TTUHSCEP currently enrolls 855 students, of which 48% identify as Hispanic.

TTUHSC El Paso's primary goals include the provision of quality education and the development of academic research, patient care, and community service programs to meet the healthcare needs of El Paso, West Texas, and the U.S.-Mexico border region. These regions are historically underserved by health professionals due to a number of factors, including geographic isolation, language barriers and high poverty rates. Moreover, demographic shifts in West Texas and across U.S.-Mexico border populations, along with the socioeconomic and epidemiologic characteristics of the region's population, have created unprecedented demands for healthcare services. TTUHSCEP aims to address these demands by providing excellence in undergraduate and graduate health-related professional education and by ensuring graduates become the culturally competent and compassionate healthcare professionals needed in the border region.

By selecting IPE for its first QEP, TTUHSCEP is building upon its mission, enhancing its academic programming, and demonstrating leadership in healthcare education.



Process Used to Develop the QEP

Identification of the Topic and Broad-Based Support

Between fall 2021 and fall 2022, TTUHSCEP developed and implemented a process for selecting its QEP topic. The selection process was comprehensive and inclusive, and involved an exhaustive review of student data from the previous three years, to identify potential QEP topics important to current and former students. The review included quantitative and qualitative data from satisfaction surveys, student exit/graduation surveys, and alumni surveys. The process was managed by committees, as described below.

QEP PLANNING COMMITTEE

The initial QEP Planning Committee convened in the fall of 2021 and was composed of the Vice President for Academic Affairs, the Assistant Vice President for Academic Affairs, the Managing Director of the Office of Institutional Research and Effectiveness (OIRE), and the Assistant Managing Director of Institutional Assessment and Accreditation in OIRE. Preliminary discussions focused on establishing a process to ensure successful planning and implementation of the QEP. Of primary concern to the committee was emphasis on input from students when selecting data sources from annual assessment processes. To ensure the inclusion of the collective student voice representative of all students across TTUHSCEP schools, the committee began a review of institutional and school-level assessment data that solicited student feedback. In order to present an inclusive sample of student reports and “voices”, data collected with a variety of assessment instruments, at multiple time points, and across TTUHSCEP schools, was compiled and analyzed. This included findings from the following student surveys:

- 2020/2021 TTUHSC El Paso Student Satisfaction Surveys
- 2019/2020/2021 AAMC Graduation Questionnaire
- 2020/2021 GSBS Post-Bac and Master’s Exit Surveys
- 2019/2020 GGHSON Exit and Alumni Surveys
- 2020 TTUHSC El Paso Wellness Assessment

Quantitative and qualitative results from these surveys were compiled and analyzed in order to identify areas of concern (i.e., low levels of satisfaction or agreement with survey items; changes in survey data trends across years), as well as prominent themes in the improvements suggested by students. From this analysis, three main themes emerged: interprofessional education, student wellness, and academic support.

The sections directly below briefly describe each assessment instrument, as well as the integration of the topic into institutional planning processes. Given that IPE was ultimately chosen as the QEP topic, examples of results from each assessment source are provided for this particular theme. Please see Appendix A for more information about the sources included in the data review, as well as data related to each of the three main themes that emerged from the analysis.

TTUHSC El Paso Student Satisfaction Surveys. TTUHSCEP conducts annual student satisfaction surveys as part of ongoing assessment processes. Two consecutive years of satisfaction survey data (2020 and 2021) were reviewed. Participants included all students enrolled at TTUHSCEP at the time of annual survey administration during the Spring semester. In 2020, this included 756 total enrolled students, of which 276 participated in the survey (36.5% response rate). In 2021, 766 total enrolled students were invited to

the survey, of which 221 participated (29% response rate). Respondents in both surveys represented all TTUHSC EP schools and academic programs, including students enrolled in distance education programs.

Analysis of survey data focused on the review of items resulting in high levels of disagreement (low levels of satisfaction), changes in trends across years and suggestions for improvements provided by students. Each annual student satisfaction survey includes the open-ended question “Do you have any suggestions for improving your experiences at TTUHSC El Paso?”, to which students can respond by writing an answer into an open, non-limited text field. Examples of survey results supporting the identification of IPE as a QEP theme, include the following:

“It is quite unfortunate that the [school] does not promote more campus-wide activities to improve connections between students of different classes and schools.”

- 10% increase in the level of disagreement to the statement: “I have sufficient opportunities to learn from practitioners in other health care professions”, resulting in 29% of students (158) disagreeing with this statement in 2021.
- Open-ended comments revealed concerns regarding the lack of IPE and/or a lack of awareness of the value of IPE. Examples include the following:
 - “Lack of team players in the [school] student body is a real issue. This is leading to future [professionals] who alienate their team and patients alike because they are not learning teamwork. Classes don't teach teamwork. Teamwork teaches teamwork, and there is no substitute.”
 - “Please don't make us work under nurse practitioners as they should not be teaching or evaluating us as medical students.”
- Open-ended comments indicated a request for more interactions with other health professions and students from other schools. Examples include the following:
 - “Please provide more opportunities to interact across the schools. “
 - “It is quite unfortunate that the [school] does not promote more campus-wide activities to improve connections between students of different classes and schools.”
 - “More interaction with other disciplines (pharmacy, nursing, etc.)”

AAMC Graduation Questionnaire. The medical school Graduation Questionnaire (GQ) is a national questionnaire administered annually by the Association of American Medical Colleges (AAMC) to all graduating medical students. The GQ is an important tool for the PLFSOM, and is used annually as part of program evaluation and to improve the medical student experience. The survey tool provides national benchmarking data, which allows medical schools to compare outcomes against medical schools nationwide. Review of GQ data from PLFSOM graduates revealed several areas of concern. For example, the 2020 GQ indicated only 62% of PLFSOM graduates answered, “more than 10 times” to the question “How often during medical school have supervising residents or faculty members directly observed you collaborating as a member of an interprofessional team and provided you with immediate feedback?” This outcome was indicated to be 11% below the average of 72% students among all medical schools. Other areas of concern included a decrease in satisfaction with wellness programs in 2021, as well as a small decrease in satisfaction levels with respect to faculty mentoring in the same year.

Exit and Alumni Surveys. Both the Graduate School of Biomedical Sciences (GSBS) and the Gayle Greve Hunt School of Nursing (GGHSON) regularly solicit feedback from their respective graduates with exit surveys. These surveys provide students the opportunity to offer suggestions for program improvements upon graduation and, in the GGHSON, 6 months post-graduation. Analysis of comments provided in two

survey years (2020 and 2021), revealed a clear theme of students asking for more interactions with students in other disciplines. For example, GSBS students suggested the following improvements:

- More exposure to medical school experiences and medical students
- More exposure to health-related areas
- More exposure to health-related community work

Similarly, GGHSON students suggested the following improvements:

- More integrated work with medical students
- Collaborative simulations

2020 TTUHSCEP Wellness Assessment. TTUHSCEP conducted a Wellness Assessment of TTUHSCEP students in response to the COVID-19 pandemic. The original survey was developed by the Ohio State University Office of Student Life's Student Wellness Center. The instrument was designed to measure nine dimensions of student wellness: creative, emotional, environmental, financial, intellectual, physical, social, career, and spiritual. The purpose of the assessment was to give students a better understanding of their overall wellness and provide institutional and local resources to help them improve their wellness. Results indicate students' aggregate wellness scores were below the 75th percentile in five of the nine dimensions of wellness. Details of these survey results are presented in Appendix A

In summary, analyses of quantitative data and theme analyses of open-ended survey responses provided by students through the survey instruments presented above resulted in the emergence of three main themes: **interprofessional education, wellness, and academic support.** Please refer to Appendix A for a presentation of the student survey data analyses and a summary of findings for each of these topics.

QEP REVIEW COMMITTEE

In the fall of 2021, the Executive QEP Review Committee was established, consisting of academic deans from each TTUHSCEP school and vice presidents representing major institutional divisions. The committee was charged with reviewing the findings and themes which had emerged from the analysis of student data, discuss alignment with strategic initiatives and needs from the perspective of each represented area, and determine the potential impacts of each theme on the learning environment. Questions considered during the review and discussions were as follows:

- How well do the identified topics align with current institutional needs?
- Based on feedback you have received from students/faculty/staff, are there other gaps/areas in need of improvement?
- Which topic will have the most impact on the learning environment and why?

Data collected with student surveys was further augmented with school-specific data and information provided by each school dean. For example, information regarding processes and practices relating to each theme were shared; gaps and needs for enhancements as identified by the faculty within each school were discussed; resources and plans for improvements were considered. Each theme was also reviewed within the context of institutional priorities, school strategic plans, and in consideration of the QEP projected timeline. For example, while the TTUHSCEP wellness assessment provided critical data identifying deficiencies in student-reported wellness, the decision was made that concerns in this area needed to be addressed immediately, in order to provide timely support and resources during the COVID-19 pandemic. As the committee worked through its review process, engaging in reflections and

discussions, IPE emerged as the topic area deemed to have the most need for enhancement and highest potential for impact on improving student learning and/or success.

To further examine TTUHSCPEP’s current IPE activities within the broader context of IPE practices at other health-related institutions (HRIs), the committee requested an analysis of QEP topics among HRIs, as well as an overview of Texas HRI’s IPE QEP projects. In addition to preparing this data, the QEP Planning Committee also met with QEP directors from The University of Texas Southwestern, The University of Texas Medical Branch, and Texas Tech University Health Sciences Center to learn about each institution’s experience related to implementing IPE as a QEP topic. Strengths, weaknesses, and lessons learned were reviewed and discussed by the QEP Review Committee.

Following the process of: (a) review of school-level and institutional data collected across years, utilizing a variety of methods; (b) direct input from school-based leadership regarding current practices and identification of needs; and (c) review of IPE practices at HRIs across the state, the QEP Review Committee unanimously chose IPE as the final topic theme for TTUHSCPEP’s QEP.

The presentation of the analysis of student data and resulting outcomes is provided in Appendix A.

A list of the QEP Review Committee members and minutes from the committee meetings are included in Appendix B.

TTUHSCPEP QEP STEERING COMMITTEE

Given the broad scope of the IPE topic theme, the QEP Steering Committee was formed in spring 2022 to further narrow and define the QEP topic, determine specific QEP goals, and develop a comprehensive plan for QEP implementation. Committee members include (a) administrators, faculty and students representing TTUHSCPEP schools and major divisions; (b) staff representatives from institutional student support areas, such as the library, finance, information technology and student affairs and student engagement; and (c) community partners, namely faculty representing health professions programs offered at The University of Texas at El Paso. Please see Table 1 below and Appendix C for a list of committee members.

Table 1. QEP Steering Committee

TTUHSCPEP QEP STEERING COMMITTEE		
INSTITUTIONAL-LEVEL REPRESENTATIVES		
Richard Brower, M.D.	Vice President for Academic Affairs	Office of Academic Affairs
Christiane Herber-Valdez, Ed.D.	Assistant VP for Academic Affairs	Office of Academic Affairs
Michele Williams, Ph.D.	Associate Managing Director	Office of Academic Affairs
Oliana Alikaj-Fierro, Ph.D.	Managing Director	Office of Institutional Research and Effectiveness
Robin Dankovich, Ed.D.	Assistant Vice President	Office of Student Services and Student Engagement

Jose Manuel de la Rosa, M.D.	Vice President	Office of Outreach and Community Engagement
Loretta Flores	Executive Associate	Office of Outreach and Community Engagement
Scott Crawford, M.D.	Director of Simulation	Simulation Training Center
Hector Aranda	Senior Director	Simulation Training Center
Brian Wilson	Director of Simulation Education	Simulation Training Center
Andrea Tawney, Ph.D.	Vice President	Office of Institutional Advancement
Koko Aung, M.D.	Vice President	Office of Faculty Affairs
Jessica Fisher,	Executive Director	Business Affairs
Rosie Sanchez,	Managing Director	Information Technology
Lisa Beinhoff, Ph.D.	Managing Director	Library
Milagros De Jesus Rivera, MLS	Public Service	Library
SCHOOL-LEVEL REPRESENTATIVES		
Stephanie Woods, Ph.D. R.N.	Dean	GGHSON
Manuel Santa Cruz, D.N.P., R.N.	Assistant Dean	GGHSON
Armando Meza, M.D.	Associate Dean	GME
Rajkumar Lakshmanaswamy, Ph.D.	Dean	GSBS
Maureen Francis, M.D.	Interim Associate Dean for Medical Education	PLFSOM
Linda Ellis, M.D.	Associate Professor	PLFSOM Office of Student Affairs
Thwe Htay, M.D.	Assistant Dean of Student Affairs	PLFSOM
Claudia Didia, M.D.	Associate Professor	PLFSOM
Lee Rosenthal, Ph.D., M.S., M.P.H.	Assistant Professor	PLFSOM
Neha Sehgal, M.D.	Assistant Professor	PLFSOM
Jan Kronmiller, D.D.S., Ph.D.	Professor	WLHSDM
Wenlian Zhou, D.M.D., D.D.S., Ph.D., M.P.H.	Professor	WLHSDM

STUDENT REPRESENTATIVES		
Emily Lloyd	Student	GGHSON
Jacob Nicasio	Student	GSBS
Obaro (Tobi) Okopie	Student	PLFSOM
Georgia Blackwell	Student	WLHSDM
Community Partners: University of Texas at El Paso		
Margie Padilla, PharmD	Clinical Associate Professor	Pharmacy
Patricia Lara, Ph.D.	Clinical Associate Professor	Speech Language Pathology
Jacob Martinez, Ph.D., B.S.N.	Assistant Professor	School of Nursing
Academic Affairs Management/Support Team		
Julie Blow, Ph.D.	Assistant Managing Director	Office of Institutional Research and Effectiveness
Veronica De Lara, B.M.S.	Section Coordinator	Office of Institutional Research and Effectiveness
Veronica Rodriguez	Executive Associate	Office of Academic Affairs
Alfonso Pacheco, M.P.A.	Program Manager	Office of Academic Affairs

The first meeting of the QEP Steering Committee was the IPE/QEP retreat held on March, 11, 2022. A presentation about the QEP was made and the charge of the committee was discussed. The charge to the committee was as follows:

- Review evidenced-based and best practices literature related to IPE
- Narrow the QEP topic theme to identify specific TTUHSCEP gaps and needs in the area of IPE
- Develop student learning outcomes
- Establish strategies for achieving the desired student learning outcomes
- Identify human and financial resources to develop, implement, and sustain the QEP
- Develop a timeline and assign responsibilities
- Develop an assessment plan for evaluating the effectiveness of the QEP.

The retreat was focused on engaging committee members in guided discussion and group work with the overarching goal of focusing the QEP topic theme and identifying specific TTUHSCEP IPE gaps and needs. The retreat was led by invited speaker, Dr. Renee Bogenschutz, Director of Interprofessional Education at Texas Tech University Health Sciences Center in Lubbock, Texas. Dr. Bogenschutz facilitated group discussions as committee members worked to answer the following guiding questions:

- What can we be best at in the world?
- What are we deeply passionate about?
- What drives our economic engine?

- How do we measure success?
- How can we expand or build capacity for students to participate in service learning and/or community engagement?
- What are some simple ways that we can improve the IPE for students in the clinical and research environment?

As a result of working through retreat activities, committee members arrived at the following final conclusions:

While there are IPE activities currently occurring within TTUHSCEP schools, there is a need to establish centralized, institutional-level infrastructure, management and support for IPE.

Moreover, an organized structure of IPE activities based on a foundation of co-curricular IPE activities with a common IPE experience across schools needs to be developed and implemented.



Through a series of meetings, the QEP Steering Committee further refined and focused the QEP topic, from the broad area of IPE to the following specific goals for IPE:

GOALS FOR IPE AS A QEP TOPIC

- 1) Defining specific student learning outcomes in the area of IPE for all TTUHSCEP students.
- 2) Developing a core IPE curriculum to be embedded across TTUHSCEP academic programs to ensure common IPE learning experiences for all students.
- 3) Determining common IPE assessments and establishing centralized coordination of ongoing assessments, analysis and improvement efforts.

- 4) Establishing centralized, institutional level organization and support for IPE programming across TTUHSCPE schools and academic programs.

In addition, the QEP Steering Committee identified the following criteria as guiding principles for the initiation and implementation of IPE as the TTUHSCPE QEP:

GUIDING PRINCIPLES FOR THE IMPLEMENTATION OF IPE AS A QEP TOPIC

- Impact the largest possible number of TTUHSCPE learners.
- Demonstrate measurable improvement in learning objectives.
- Alignment with the TTUHSCPE mission and 5-year strategic plan
- Emphasize national trends and data identifying institution-wide support for IPE as a critical issue in healthcare practice and education.
- Include support for faculty, staff, and student development.
- Scope to be achievable using available and dedicated resources.
- Achievable within five years.

Please see Appendix C for select Steering Committee meeting minutes.

QEP STEERING COMMITTEE - SUBCOMMITTEES

Lastly, in order to disseminate responsibilities for QEP plan development and maximize the unique skill sets of QEP Steering Committee members, subcommittees were formed to address the following specific areas:

- **Scholarship Subcommittee:** Representatives who acquire and disseminate knowledge about current literature on IPE and IPE programming. This includes identifying didactic, clinical, and co-curricular IPE activities as well as developing faculty and staff skills in IPE programming.
- **Outcomes and Curriculum Subcommittee:** Academic affairs representatives and curriculum developers from each school who integrate IPE into curricula and contribute to the QEP via the development and systematic study of program-specific IPE plans.
- **Assessment Subcommittee:** Academic assessment experts representing each school who generate, analyze, and report institution-wide IPE outcomes data and contribute to QEP by coordinating, monitoring and analyzing student learning outcomes.
- **Resources Subcommittee:** Representatives who assist in determining and acquiring institutional resources needed to successfully implement the QEP.

SUMMARY OF TOPIC SELECTION PROCESS

The process for identifying a QEP topic involved multiple stakeholders across the institution, including students, faculty, staff, and senior administrators. Their participation is reflected in survey results, committee meetings, and strategic planning processes. Not only was there broad-based support in the topic selection process, but there will also be widespread involvement of key constituents in the initiation, implementation, and completion of the five-year project. The subsequent sections provide details regarding plan development and implementation, including how TTUHSCPE plans to assess specific student learning outcomes and overall achievement of the QEP.

Vision, Purpose and Alignment with Mission

Vision and Purpose for IPE at TTUHSCEP

The overarching vision of TECH Ready is to establish an institutional culture committed to the values of interprofessional education (IPE). These values promote safe, effective and compassionate patient-centered health care through teamwork and include mutual understanding and respect, trust, integrity, high ethical standards and the deliberate consideration of the knowledge, skills and perspectives of all team members.

The purpose of the TECH Ready initiative is to promote core competencies for collaborative practice, in order to prepare all TTUHSCEP graduates for enhanced team-based care of patients and improved population health outcomes and to become future leaders in dynamic health care environments.

TECH Ready further aims to build upon the fundamentals for IPE established by TTUHSCEP schools and to develop the structural and organizational programming to support IPE institutionally, thereby ensuring common IPE training and experiences for all TTUHSCEP students.

IPE AT TTUHSCEP: EDUCATION IN SILOS

Most professional degree programs offered at TTUHSCEP currently have requirements for IPE and embed a varying levels of IPE training within their respective academic program offerings. For example, IPE is an integral part of the medical education curriculum at the PLFSOM. Medical students are required to complete three IPE activities by the end of their first year of the program with additional IPE activities being completed in their third and fourth years. The recently opened WLHSDM has similar requirements. In fact, dental students and medical students are enrolled together in select IPE activities, since these students share some common curricular elements and course schedules. The GGHSO does not share common curricular elements with other schools. Nonetheless, its programs coordinate opportunities for nursing students to participate in IPE activities with medical students. For the FGSBS, which does not offer professional degree programs, IPE activities are mainly research-based in nature, yet also occur in collaboration with the PLFSOM.



TTUHSCPEP recognizes that each of its schools provides a variety of IPE training and experiences for students. Table 2 below describes IPE activities that are currently occurring at TTUHSCPEP by school. These activities include formal and informal curricular platforms for didactic and interactive teaching. While some of these IPE activities reach beyond the organizing school, they vary widely with respect to school participation, and there is little to no campus-wide integration. In addition, there are no required common core IPE activities that transcend programs. With the implementation of the TECH Ready initiative, there will be centralized IPE coordination ensuring interactions among and between TTUHSCPEP schools and their respective students.

We believe that bringing together students from all schools and academic programs - to learn from and with each other within purposefully designed IPE activities - will produce deep and long-lasting benefits for our students. Furthermore, by promoting interdisciplinary collaboration among the disciplines, the TECH Ready initiative will work to deconstruct traditional “silos” within our institution and across the healthcare continuum.

Table 2. Current TTUHSCPEP IPE Activities by School

PLFSOM	WLHSDM	GGHSON	FGSBS
<ul style="list-style-type: none"> • Interprofessional Roles and Responsibilities Team-Based Learning • TeamSTEPPS Training and Simulations • Interprofessional Ethical Case Based Discussion on the Opioid Epidemic • Society, Community, Individual (SCI) Course • UTEP-Hosted IPE: Transgender Health, Care of Refugees, Individuals Experiencing Homelessness • Disaster Drill Trainings • Clerkships: Family Medicine, Internal Medicine, Psychiatry, Surgery, Obstetrics & Gynecology 	<ul style="list-style-type: none"> • Interprofessional Roles and Responsibilities Team-Based Learning • TeamSTEPPS Training and Simulations • Interprofessional Ethical Case Based Discussion on the Opioid Epidemic • Society, Community, Individual (SCI) Course • UTEP-Hosted IPE: Transgender Health, Care of Refugees, Individuals Experiencing Homelessness (planned 2023) • Ergonomics • Electrocardiogram/blood pressure/pulse oximeter learning • Head, neck lymph node palpation learning • Interaction with Assistants (radiology, digital dentistry) and Hygienists (planned). 	<ul style="list-style-type: none"> • Interprofessional Roles and Responsibilities Team-Based Learning • TeamSTEPPS Training and Simulations • Interprofessional Ethical Case Based Discussion on the Opioid Epidemic • Disaster Drill Trainings • Radiology/Emergency Medicine Training Program 	<ul style="list-style-type: none"> • El Paso Pre-Medical Development Honor Society • Research Activities • Annual Research Symposium

Alignment of the QEP with TTUHSCPE Mission and Strategic Plan

TTUHSCPE MISSION

The mission of TTUHSCPE is to “improve the lives of people in our State and our community by focusing on the unique healthcare needs of socially and culturally diverse border populations through excellence in integrated education, research, and patient care.”

TTUHSCPE's primary goals include the provision of quality education and the development of academic research, patient care, and community service programs to meet the healthcare needs of El Paso, West Texas, and the U.S.-Mexico border region. These regions are historically underserved by health professionals, and demographic shifts in West Texas, along with the socioeconomic and epidemiological characteristics of U.S.-Mexico border populations, have created major demands for specific healthcare services. TTUHSCPE addresses these demands by providing excellence in undergraduate and graduate health-related education, while ensuring its graduates become the culturally competent and compassionate healthcare professionals needed in the border region.



In addition, TTUHSCPE strives to achieve a diverse student population by recruitment of underrepresented students, students of various age groups, and students with a variety of socioeconomic, academic, and life experiences. This includes recruitment of applicants from West Texas, El Paso, and regional rural and border communities. Understanding that students are more likely to service their home regions upon graduation, TTUHSCPE seeks to train qualified students from these areas in order to ensure long-term quality healthcare in local and regional communities.

TTUHSCPE STRATEGIC PLAN

The TECH Ready initiative directly supports Goal 1 of the six institutional strategic goals: Excellence in Academics. Specifically, it pertains to three objectives within Goal 1:

- Objective 1.3: Promote student achievement through a commitment and dedication to continuous innovation in education and teaching.
- Objective 1.4: Prepare future health professionals for enhanced team-based care to improve health outcomes for individuals and the population of the Paso del Norte region.
- Objective 1.5: Grow and improve graduate medical education as it pertains to the mission.

The TTUHSCPE mission and Goal 1 of the strategic plan are provided in Appendix D.

TTUHSCEP SCHOOLS AND DEGREE PROGRAMS

TTUHSCEP is currently composed of four schools, offering degrees in nursing, biomedical sciences, medicine and dental medicine.

- Gayle Greve Hunt School of Nursing (GGHSON) - Bachelor of Science and Master of Science in Nursing
- L. Frederick Francis Graduate School of Biomedical Sciences (FGSBS) - Master of Science in Biomedical Sciences and Post-Baccalaureate Certificate in Biomedical Sciences
- Paul L. Foster School of Medicine (PLFSOM) - Doctor of Medicine
- Woody L. Hunt School of Dental Medicine (WLHSDM) - Doctor of Dental Medicine

SCHOOL-LEVEL STRATEGIC PLANS

Each TTUHSCEP school develops a strategic plan to align with institutional strategic planning goals and reflect school-specific objectives and strategies. The TECH Ready initiative also aligns directly with TTUHSCEP school-level strategic plans as follows:

- **PLFSOM Strategic Plan**
 - Strategy 1.4.1: Integration of interprofessional education (IPE) into the curriculum of the medical school, including didactic, case-based, and simulation activities.
 - Strategy 1.4.2: Enhance opportunities for IPE collaborative practice in authentic clinical and community settings.
- **WLHSDM Strategic Plan**
 - Objective 1.4: Train interprofessional healthcare teams through current approaches in interprofessional education.
- **GGHSON Strategic Plan**
 - Objective 2: Establish learning activities that promote interprofessional collaboration between nursing and other healthcare disciplines.
- **FGSBS Strategic Plan**
 - Strategy 1.1.2: Foster student success through proactive student-based initiatives.

As such, the TECH Ready initiative clearly supports the (a) institutional mission; (b) strategic plans at the institutional and school levels; and (c) TTUHSCEP's tradition of providing leadership and excellence in health professions education and patient care.

Improvement of Student Learning and/or Success

Literature Review and Best Practices

Throughout fall 2022, the QEP Steering Committee Scholarship Subcommittee conducted a literature review to examine the foundational background and pedagogical best practices related to IPE. Following this examination, the Steering Committee engaged in critical analyses of the current TTUHSCEP learning environment and, using their findings in effective IPE pedagogical approaches, explored how IPE initiatives may best be implemented across TTUHSCEP programs to ensure desired student learning outcomes.

DEFINITION OF INTERPROFESSIONAL EDUCATION (IPE)

The World Health Organization (WHO) defines IPE to occur “when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010). The importance and value of IPE in the development and training of health profession students have been well-documented. The WHO initiated its support of interprofessional collaboration and IPE over 50 years ago “to ensure the provision of effective and comprehensive health care” (WHO, 1973, p. 19).

The National Academy of Medicine - formerly known as the Institute of Medicine - emphasized the criticality of IPE in prelicensure health professions education for healthcare equality in three of their most formative reports (Fransworth et al., 2015). As summarized in the Institute of Medicine’s publication *Interprofessional Education for Collaboration* (2013), IPE provides opportunities to learn and practice skills that improve students’ ability to communicate and collaborate, while also developing leadership qualities and respect for each other. As such, IPE prepares students for work in settings where collaboration is a key to success, as measured by “better and safer patient care as well as improved population health outcomes”.

IPEC COMPETENCIES

The Interprofessional Education Collaborative (IPEC), one of the nation’s leading collaboratives focused on ensuring the proficiency of health professionals in competencies “essential for patient-centered, community- and population-oriented, interprofessional, collaborative practice” has worked for over a decade to promote pedagogy in interprofessional competencies to students of health professions (IPEC, 2022). IPEC -- comprised of expert representative associations from dentistry, nursing, medicine, osteopathic medicine, pharmacy and public health -- specifically defined interprofessional competencies in healthcare areas the “integrated enactment of knowledge, skills, values, and attitudes that define working together across the professions, with other healthcare workers, and with patients, along with families and communities, as appropriate to improve health outcomes in specific care contexts” (IPEC, 2016).

IPE is contended to improve health outcomes, but may also potentially improve workplace practices and productivity, patient satisfaction and patient safety (Masten, Acton, Ashcraft, & Esperat, 2013). However, Blue and colleagues (2010) posit that isolated IPE efforts by small faculty groups across institutions are not likely to be effective or have lasting effects. Rather, they suggest that successful IPE implementation

must occur strategically with support from institutional leadership and with attention to sustainability. Therefore, a centralized effort is essential for successful implementation of IPE.

The framework for the TTUHSC EP TECH Ready initiative is based on core competencies developed and presented by IPEC in their *Core Competencies for Interprofessional Collaborative Practice Guide*, which includes recommendations to support curriculum development and interprofessional collaborative practice across health-related institutions (IPEC, 2011). In 2016, updates were made to the guide by the IPEC Board, with one of the goals of the update being the organization of IPE competencies into a singular domain of interprofessional collaboration (IPEC, 2016). Based on the work of Englander et al. (2013), the core competencies reside within this overarching competency domain.



According to IPEC, agreement on a set of core competencies across health professions is essential because they help create a coordinated effort across health professions to embed critical content into curricula, guide curricular development of learning approaches and assessment strategies, and provide the foundation for a lifelong learning trajectory for interprofessional competency development (IPEC, 2016).

The four core competencies that were identified by IPEC:

1. Work with individuals of other professions to maintain a climate of mutual respect and shared values (**Values/Ethics for Professional Practice**).

Values/Ethics for Professional Practice is associated with 10 sub-competencies, including the following: placing interests of patients and populations at the center of interprofessional healthcare delivery, working in cooperation with those who receive and provide care, and developing a trusting relationship with patients, family and other team members.

2. Use the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of patients and to promote and advance the health of populations (**Roles/Responsibilities**).

Roles/Responsibilities contains 10 sub-competencies, including the following: communicating one's roles and responsibilities clearly to patients and other professionals, engaging diverse professionals to complement one's own professional expertise, explaining the roles and responsibilities of other providers and how the team works together to provide care, and using the unique and complementary abilities of all team members to optimize health and patient care.

3. Communicate with patients, families, communities and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease (**Interprofessional Communication**).

Interprofessional Communication is associated with eight sub-competencies, which include the following: choosing effective communication tools and techniques, communicating with all stakeholders in a form that is understandable, listening actively and encouraging the ideas of other team members, and using respectful language appropriate for a given situation.

4. Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable (**Teams and Teamwork**).

Teams and Teamwork has 11 associated sub-competencies, which include the following: describing the process of team development and the roles and practices of effective teams, engaging health and other professionals in shared patient-centered and population-focused problem-solving, and performing effectively on teams and in different team roles in a variety of settings (IPEC, 2016).

Other institutions that have incorporated IPEC competencies as a framework for their curricula have noted successes and barriers to implementation. For example, one institution noted that a learning framework that incorporated a longitudinal progression of experiences for IPEC sub-competencies would be beneficial to students. IPEC sub-competencies were also categorized by a progressive level of advancement that students must master and build new skills upon (Patel Gunaldo, Fitzmorris Brisolará, Davis, & Moore, 2017).

SELECTED IPEC LEARNING PEDAGOGIES

Selected pedagogies for IPEC learning are summarized below. The pedagogies can be implemented singularly or in combination with other pedagogies.

Problem-Based Learning. Interprofessional problem-based learning (iPBL) supports student development in the IPEC competencies (Phelan et al., 2022) by promoting the co-construction of knowledge through collaborative engagement for patient-centered care (Lestari et al., 2019). Activities that center iPBL are those that include opportunities for students to question, discuss, and consider each other's critical thinking and viewpoints, which contributes to the development of interprofessional trust and respect (Lestari et al., 2019). Literature on iPBL explores its benefits to students (e.g., medical, nursing, pharmacy, dental students) in the areas of student attitudes toward IPE, collaboration skills during knowledge development, student satisfaction during iPBL activities and skills building from IPE group activities (Ali et al., 2022; Lehrer et al., 2015; Lestari et al., 2019).

Case-Based Learning. Through the use of interprofessional case-based learning (CBL), an inquiry structured learning tool, students from various health professions collaborate in interprofessional teams to examine and solve a clinical problem presented with live or simulated patient cases (McLean, 2016). According to Shaw-Battista and colleagues (2015), CBL activities in IPE result in student-reported

increased communication and mutual understanding among interprofessional teams. Students additionally report the potential for CBL in IPE to improve the quality and coordination of care (Shaw-Battista et al., 2015).

IPE CBL has been used in various learning settings with documented positive outcomes. Bavarian and colleagues (2021) explored the use of CBL in interprofessional student teams of dental and medical students. Students reported that CBL beneficially enabled them to use their training to conduct patient interviews and examinations, and to form appropriate diagnoses. From the faculty perspective, CBL beneficially enabled assessment of students' clinical communication skills, examination skills, and professionalism (Bavarian et al., 2021). Similar to IPE using the iPBL pedagogical approach, Bavarian and colleagues (2021) contend that CBL in IPE provides opportunities for students from various educational backgrounds and areas of expertise to learn about each other's perspective and learn from each other through collaboration and discussion.

Lin and colleagues (2013) posit that iPBL curriculum using case-study -- specifically on clinical ethics -- leads to improved student attitudes and increased student confidence in interprofessional collaboration. Lestari and colleagues (2022) contend that interprofessional CBL -- particularly provided through online formats to medical and nursing students -- beneficially improves students' skills in constructive, collaborative knowledge construction.

Team-Based Learning. Team-based learning (TBL) in IPE is an effective, efficient learning tool for health professions students. TBL adds to student content knowledge through active learning and develops student skills in the IPEC competencies of teamwork, communication, and roles and responsibilities (Wheeler et al., 2019; Black et al., 2016). Black and colleagues (2016) contend that TBL is a practical approach for the instruction of a large number of students from various health professions, as found in academic health science centers. TBL was implemented in an IPE activity on their campus to enhance students' knowledge in shared curricula topics while applying and growing students' teamwork skills. The investigators contended that the use of TBL enabled students to identify the significance of contributions by individual team members in their interprofessional teams and link individual team member contributions to improved team performance (Black et al., 2016).

Similarly, Wheeler and colleagues (2019) find that TBL in IPE and interprofessional collaboration promotes students to recognize the abilities of their interprofessional team members. Specifically, TBL fosters a setting for interprofessional communication and teamwork and enables students to recognize that the skills and knowledge of their team members overlap with and complement their own. Through such recognition, TBL encourages students to value the roles, responsibilities, professional knowledge and skills of students of other health professions (Black et al.; 2016) toward their preparation for interprofessional team-based care.

Madigosky and colleagues (2019) provide a comprehensive look at TBL in an Interprofessional Education and Development (IPED) course which addresses the competency domains of teamwork/collaboration, values/ethics, and quality/safety for students from pharmacy, medicine, nursing, dental, physical therapy, and physician assistant programs. The course offers activities and learning opportunities based on content from an Ethics in the Health Professions course, TEAMSTEPPS (a teamwork system for health professionals designed by the Agency for Healthcare Research and Quality) (Agency for Healthcare Research and Quality, 2019), and the Institute for Healthcare Improvement Open School (Madigosky et al., 2019). The

authors reported the following student learning outcomes: (a) knowledge development in competency domains for students individually; (b) team development in knowledge, skills, and abilities; (c) student self-reported ability to explain skills required for optimal team functioning; and (d) significant improvements in students' understanding of interprofessional roles and responsibilities. Furthermore, the authors contend that the referenced TBL is successful in developing students' required baseline knowledge and abilities for interprofessional practice (Madigosky et al., 2019).

Simulation-Based Learning. With simulation-based learning (SBL), health profession students acquire and retain content knowledge, while developing and growing their skills through active learning models that require teamwork and collaboration (Wu et al., 2022). As such, a significant amount of IPE courses are offered to students of health professions using the SBL approach to strengthen students' development in the IPEC core competencies (Berger-Estilita et al., 2020; Cunningham et al., 2018). Specifically, SBL has been found to support students' growth in interprofessional teamwork, roles and responsibilities, and communication (Becker et al., 2022; Cunningham et al., 2018). SBL has additionally been found to increase student confidence in their treatment skills (Cunningham et al., 2018).

Health profession students report positive learning experiences from SBL in IPE activities (Becker et al., 2022). They additionally report improved attitudes towards interprofessional collaboration and interprofessional relationships (Becker et al., 2022; Cunningham et al., 2018). In terms of learning outcomes, current research reflects improved student learning, specifically in the areas of medical task performance and team behavior performance, resulting from simulation-based IPE (Wu et al., 2022).



Some scholars emphasize the beneficial opportunities SBL experiences offer for academic health institutions to collaborate and engage with healthcare professions not represented within their respective institutions (Cunningham et al., 2018). Additionally, scholars underscore the connection between interprofessional communication and teamwork skills and positive attitudes toward interprofessionality. Additionally, the skills and attitudes gained by students in SBL can lead to effective interprofessional collaboration in practice (Becker et al., 2022). These benefits are cited with recommendations to grow interprofessional SBL in healthcare education (Becker et al., 2022).

Blended Modalities of Learning. Various modalities of learning have increasingly been used in IPE instruction in response to the needs of students and pedagogical innovations. Lotrecchiano and colleagues (2013) examined the efficacy of a program which used an IPE curriculum that was blended into in-person coursework learning, integrated online interactive instruction, on-site training, and community engagement activities. The authors reported that, through the use of blended modalities of learning (BML) in IPE, faculty were able to provide a more comprehensive manner of instruction. Use of an online platform for online instruction enabled instructors to provide a wide array of learning materials for asynchronous learning, accessible at any time to students, while accommodating students' study schedules. Web-based and online learning enabled students to efficiently and effectively collaborate and

discuss course topics with each other. Students reported increased communication competencies as result of online discussions, live community engagement activities and on-site training. Overall, authors reported the combination of online (synchronous and asynchronous) instruction coupled with in-person learning activities supported a continuous learning experience in IPE (Lotrecchiano et al., 2013).

Almendingen and colleagues (2021) examined the suitability and efficacy of BML in an interprofessional learning exercise among students from nursing and occupational therapy. Specifically, students completed an iPBL training which used online and in-person instruction and activities. The study examined whether BML improved student learning in the roles and responsibilities, values and ethics, interprofessional communication, and teams and teamwork competencies. Students reported BML as an effective, suitable pedagogical approach in IPE and increased insight into the referenced competencies. Students additionally reported the most satisfaction in learning outcomes associated with instructor supervision, the digital experience from the use of the online platform (Canvas), and interprofessional learning group discussions (Almendingen et al., 2021).

Chen and colleagues (2017) examined the use of BML using both asynchronous and synchronous learning to overcome common identified obstacles in IPE. An IPE curriculum on the IPEC competencies course was implemented to early learners of five health professional programs: dentistry, medicine, nursing, pharmacy, and physical therapy at a large health science center. The course consisted of five sessions of a one-hour online module and a 2-hr facilitated in-person small group activity for skills application (Chen et al., 2017). The respective sessions covered one of the following IPEC competency domains: interprofessional collaborative practice, roles and responsibilities, interprofessional communication, conflict management, and leadership/membership. Pedagogical approaches included “expert interviews, videos, reflections, pair-share, role play, and group debrief” (Chen et al., 2017, p. 86). The group of over 500 students positively reported knowledge acquisition and insight in the referenced IPEC competencies (Chen et al., 2017).

BARRIERS AND KEYS TO SUCCESS FOR IPE

A recent review of IPE implementation by Bogossian et al. (2022) identified challenges and lessons learned. These lessons are divided into micro (teaching), meso (institutional), and macro (systemic) levels. Micro-level implementation factors include socialization issues, learning context, and faculty development. Specifically, learners may be resistant to learning from other professions, and there may be a lack of “buy-in.” Therefore, a learning context which accounts for differences across disciplines and varying level of experience, makes IPE equally as important as other elements in the curriculum, and where collaborative practice is modeled by educators, is essential. In fact, faculty and staff that are well-trained in delivering IPE is critical to successful implementation. The authors highlight formal IPE training, ongoing faculty development opportunities for IPE and resources to support new faculty as key elements to success.

Meso level implementation factors include leadership, resources and administrative processes. Strong committed leadership that engages both faculty and staff is necessary to support IPE. Prior to implementation of IPE, it is critical to create a shared vision, develop resources, secure financial support and clearly identify roles. Logistical challenges that arise during the implementation of IPE require a collaborative effort of faculty, staff and leadership to identify and address them early.

Macro level factors include the education system, government policies and social and cultural values. High level institutional support has been identified as a key factor to successful IPE implementation. An institution that supports IPE by having policies in place for awarding academic credit for participation and a strong administrative structure to support IPE is necessary for long-term sustainability.

Student Learning Outcomes

The TTUHSCEP TECH Ready initiative is designed to improve student learning by transforming the institution's educational environment and enhance IPE across all of its academic programs. In alignment with TTUHSCEP's desire to enhance the personal and professional development of our students, the QEP Steering Committee identified four student learning outcomes for the TECH Ready initiative. These student learning outcomes represent the knowledge, skills, and/or attitudes that a student is expected to demonstrate before completion of a TTUHSCEP academic program.

STUDENT LEARNING OUTCOMES

Student learning outcomes are statements of the knowledge, skills, attitudes, and beliefs that the individual student possesses and can demonstrate upon completion of a learning experience or sequence of learning experiences. In this case, student learning outcomes refers to changes in student performance goals and/or perceptions as a result of the educational experiences offered by the TECH Ready initiative. To participate as a collegial member of an interprofessional team, an individual must understand and respect other team members' knowledge, expertise, and values. The IOM recommends that leaders of academic health centers encourage coordination across disciplines to "remove internal barriers to interprofessional education" (IOM, 2003, p. 116) and "prepare students to work as a team driven by the health needs of patients" (IOM, 2003, p. 48). The desired student learning outcomes are based on these recommendations and align directly with the IPEC competencies (IPEC, 2016).

TECH Ready will involve students from all four TTUHSCEP schools. Students who participate in TECH Ready will be expected to:

1. Work with individuals of other professions to maintain a climate of mutual respect and shared values (**Values/Ethics for Professional Practice**).
2. Use the knowledge of one's own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations (**Roles/Responsibilities**).
3. Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease (**Interprofessional Communication**).
4. Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable (**Teams and Teamwork**).

The QEP Steering Committee approved the proposed student learning outcomes in November 2022. Minutes of the initial meeting and subsequent voting process are included in Appendix C.

Strategies to be Implemented

Based on a review of best practices literature and in order to achieve the desired student learning outcomes, TTUHSCEP established three overarching goals for the implementation of the TECH Ready initiative. These goals engage administrators, faculty, and students and acknowledge the importance of having appropriate organizational support to facilitate communication and collaboration among students and faculty in geographically separate locations. The following narrative summarizes the actions to be implemented in support of each goal of the TECH Ready initiative.

It is TTUHSCEP's goal to strengthen support for IPE at the institutional level. This will be accomplished in the following ways:

- TTUHSCEP will implement **IPE EDUCATIONAL PROGRAMMING** and establish IPE core requirements for the completion of all TTUHSCEP academic programs. IPE core requirements - the IPE Shared Experience - will consist of three levels of IPE training: preparation, theoretical application, and practical application.
- TTUHSCEP will establish an **ORGANIZATIONAL SUPPORT STRUCTURE** for IPE. Central to this infrastructure will be the institutional level Office of Interprofessional Education (OIPE). Personnel in the OIPE will be a resource for developing and coordinating IPE activities for all students at the institution.
- TTUHSCEP will provide **CENTRAL COORDINATION** of IPE activities, to include the shared experience and IPE activities beyond the required IPE core requirements, in order to facilitate, monitor and track student participation in IPE across all TTUHSCEP schools. Central coordination will further support IPE training and professional development, application of resources and ongoing assessment and reporting processes.

IPE Educational Programming

The heart of the TECH Ready initiative is developing and implementing IPE educational programming that transcends academic programs and disciplines at TTUHSCEP. The underlying framework for IPE educational programming has been established by the QEP Steering Committee based on a review of best practices literature. This framework includes a staging process for implementing IPE curricular elements and guiding principles for developing IPE learning. Specifically, to achieve the desired student learning outcomes of the TECH Ready initiative, TTUHSCEP faculty and staff will develop and implement the following IPE curricular and instructional components:

TTUHSCEP IPE Core Requirements: IPE Shared Experience

All TTUHSC El Paso students will be expected to acquire the essential knowledge and skills for interprofessional practice, and this will be ensured through an intentional framework of shared educational IPE experiences within IPE core requirements. IPE core requirements are based on the four IPEC core competencies: Values/Ethics, Roles/Responsibilities, Interprofessional Communication, and Teams and Teamwork. The IPE core requirements, also referred to as the Shared Experience, will be organized in three stages: (a) preparation; (b) theoretical application; and (c) practical application. The staging process is designed to support the integration of IPE educational programming over time using a variety of educational methodologies.

Preparation. To prepare students for IPE, an “Introduction to IPE at TTUHSCEP” asynchronous interactive module will be developed and presented to new students during each school’s respective orientation. The purpose of the video is to introduce students to IPE and outline expectations for students with regard to IPE at the institutional level. In addition, each school will supplement this institutional content with additional preparatory content (interactive media or live sessions) focusing on the importance of IPE in the context of their student’s anticipated roles and on the organization of IPE in those curricula. To ensure alignment with the TECH Ready initiative’s goals, all such content will be subject to input, review and approval by the IPE Curriculum Council

Theoretical Application. After introducing TTUHSCEP students to IPE, the next step will be to have students engage in guided interactions with students from other schools in order to develop their IPE skillsets. In order to accomplish this, all students will be required to complete TeamSTEPPS training. The objective of TeamSTEPPS training and simulation are as follows:

- a. Describe the process of team development and the roles and practices of effective teams
- b. Use effective TeamSTEPPS communication tools and techniques to facilitate discussions and interactions that enhance team function
- c. Organize and communicate information with healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible
- d. Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem-solving
- e. Perform effectively on teams and in different team roles in a variety of settings.

Currently TeamSTEPPS is offered annually to students of select academic programs. However, TeamSTEPPS will be offered on a bi-annual basis to create more opportunities for all TTUHSCEP students to participate in TeamSTEPPS. Offering TeamSTEPPS at least twice annually will accommodate the various academic schedules across schools. In the event that a student is not able to participate in these TeamSTEPPS trainings, alternative opportunities will be provided to ensure the student is prepared for timely progression within their respective program.



Practical Application. After completing TeamSTEPPS, students will then be required to put their acquired IPE skillset into practice. Requirements for completing this level will vary by school and may include existing curricular elements. The primary goal of this component of TECH Ready is to ensure that all students engage in the expert-guided deliberate practice of TeamSTEPPS tools and techniques in an intentional IPE context, as well as in the context of the student’s anticipated degree and licensure-related roles and responsibilities. From a clinical sciences perspective, this phase promotes the reflective

vocation-focused integration of teamwork and team skills (i.e., communication, leadership, situational monitoring and mutual support) with the principles of collaborative, safe and effective patient-centered care.

For example, the PLFSOM and the WLHSDM currently requires student participation in Interprofessional Cased-Based Discussion on the Opioid Epidemic. The objectives of this course are as follows:

- a. Collaborate with other healthcare professionals to create a care plan for patients with acute and chronic pain.
- b. Apply ethical principles to patient care, specifically concerning opioid use and potential abuse.
- c. Manage ethical dilemmas in cases of pain control.
- d. Maintain professional demeanor and behavior when disagreements occur in the management of patients with acute and chronic pain.

In the FGSBS, students are required to complete a Responsible Conduct of Research Course, in which students engage in discussion, group activities and role-playing scenarios that depict ethical dilemmas related to biomedical research. The objectives for the course are as follows:

- a. Describe the relevant written guidelines bearing on the conduct of scientific research including those dealing with scientific authorship and collaboration, use of humans and animals in research, conflict of interest and general standards of scientific conduct
- b. Identify the statutes that govern the ownership, protection, and use of intellectual property in the area of scientific research
- c. Describe conventions and normative behavior related to responsibilities in the scientific mentor-trainee relationship
- d. Describe the conventions of scientific record-keeping and have a clear understanding of data ownership issues
- e. Describe the relevant issues and dilemmas related to the impact of genetic technology on human subject research and on society in general
- f. Become aware of current problems or headlines and consequences arising from failure to follow regulations and expectations
- g. Articulate understanding of issues related to the conduct of research by recognizing problem(s) in practical cases and proposing one or more acceptable resolutions in class or in writing
- h. Become aware of current discussions regarding publication.

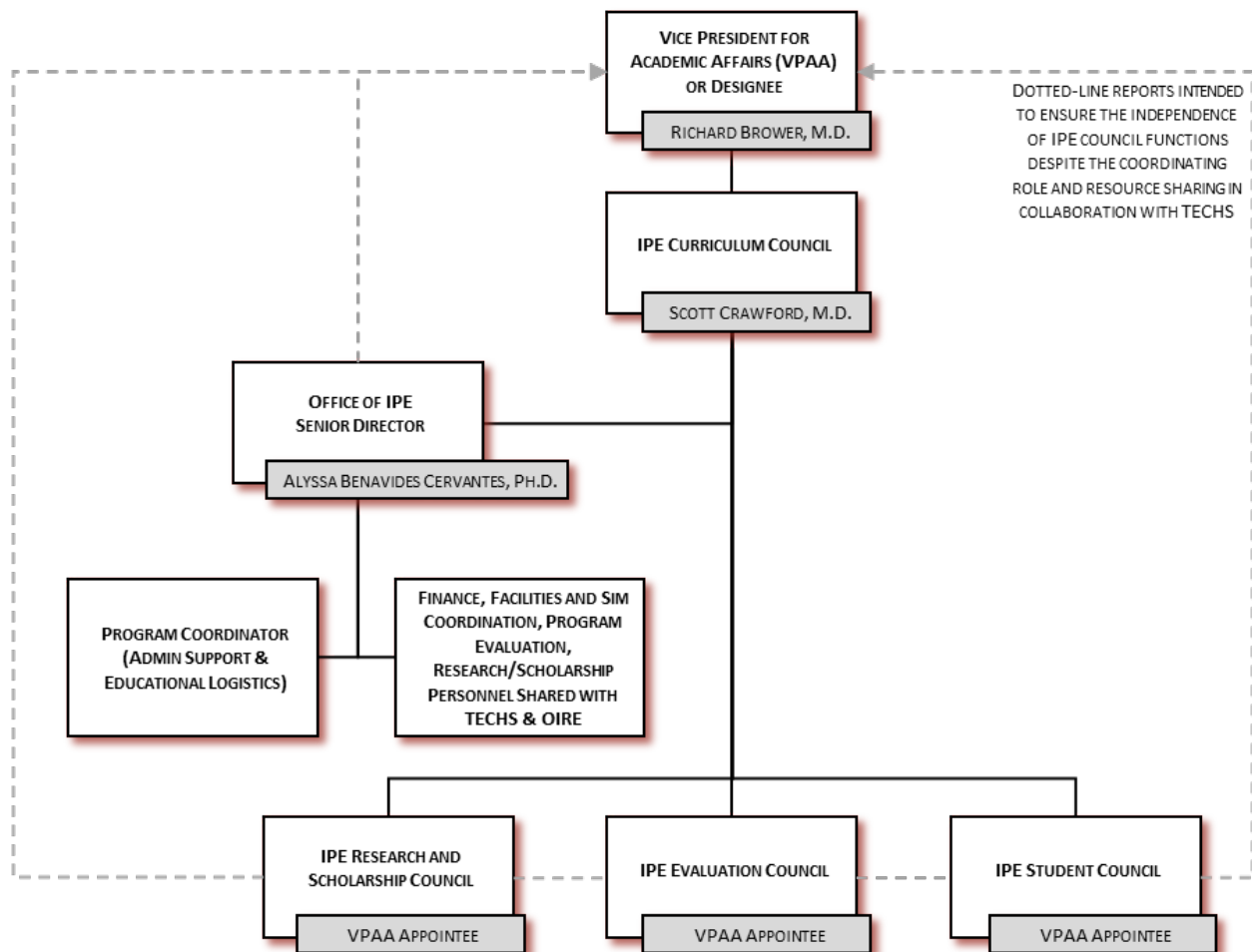
FGSBS students are also required to engage in research activities with students from the medical schools under the mentorship of faculty. These experiences culminate in an annual research symposium where students from all schools who participate in research activities present their research.

In sum, the staging process has been designed to integrate various methods of delivery over time, thereby providing multiple opportunities for learners to practice collaboration, communication, and cooperation and develop competence in interprofessional teamwork. The staging process will facilitate progressive acquisition of the knowledge, skills, behaviors, and attitudes necessary for effective participation as an interprofessional team member by giving learners opportunities to practice in safe, simulated environments before transferring IPE skills to the actual work-based patient care setting.

IPE Organizational Support Structure

Imperative to the success of the TECH Ready initiative is the development of an organizational support structure, including a centralized office, which will support IPE institutionally across all schools and programs. The Office of Interprofessional Education (OIPE), which was established in 2022, is overseen by the Vice President for Academic Affairs (VPAA). The position of Senior Director of OIPE was newly created, and the role was filled in 2023. The Senior Director of OIPE will be responsible for the development and coordination of IPE at the institutional level. The position description for an OIPE program coordinator is currently being developed. As outlined in Figure 1, there are four councils that support the Senior Director of OIPE, and the configuration of these councils are described in further detail below Figure 1.

Figure 1: TTUHSCEP TECH Ready Organizational Chart



IPE CURRICULUM COUNCIL

The IPE Curriculum Council is charged with the overall strategic oversight for IPE at TTUHSCEP, with primary responsibility for the design, implementation, and support of the TTUHSCEP IPE core curriculum. The council also maintains awareness of, advises, and assists in the coordination of IPE programs sponsored at the program, co-curricular, and partner/affiliate levels.

Voting Members (5)

- Chair (1): Institutional representative (Training and Educational Center for Healthcare Simulation Director or other VPAA Designee).
- Members (4): one dean-appointed IPE-trained faculty member from each school (supported by the school at 0.10 FTE for this purpose).

Non-Voting Members (4)

- Alternate Members (4): one dean-appointed IPE-interested faculty member from each school. Alternate members may participate in council activities but are eligible to vote only when designated by the voting member appointed for their school when that voting member is unavailable.

Executive support for the council will be provided by the OIPE Director. The chair of the IPE Curriculum Council and the OIPE Director will jointly report to the VPAA. The IPE Curriculum Council will report annually to the TTUHSCEP Academic Council (in collaboration with the IPE Student Council).

IPE STUDENT COUNCIL

The IPE Student Council is charged with providing feedback and recommendations from the student perspective regarding IPE at TTUHSCEP, especially in relation to the design, implementation, and support of the TTUHSCEP common IPE experience. The IPE Student Council may also advise and assist in the planning and coordination of IPE programs sponsored at the institutional, program, co-curricular, and partner/affiliate levels.

Voting Members (8)

- Chair (1): Elected from among the council membership
- Members: Two Student Government Association (SGA)-appointed IPE-interested student members from each school

Executive support for the IPE Student Council will be provided by the OIPE Director. The chair of the council and the OIPE Director will jointly report to the VPAA. The IPE Student Council will report annually to the TTUHSCEP Academic Council (in collaboration with the IPE Curriculum Council).

IPE EVALUATION COUNCIL

The IPE Evaluation Council is charged with developing, implementing, validating, monitoring, and reporting on systematic program evaluation for IPE at TTUHSCEP. The IPE Evaluation Council provides analysis and recommendations to the IPE Curriculum Council specifically regarding the TTUHSCEP common IPE experience and maintains awareness and assists in the evaluation of IPE programs sponsored at the program, co-curricular, and partner/affiliate levels.

Voting Members (5)

- Chair (1): Appointed by the VPAA
- Members (4): One dean-appointed, IPE-interested faculty member from each school (supported by the school at 0.10 FTE for this purpose)

Non-Voting Members (4)

- Alternate Members (4): One dean-appointed, IPE-trained, faculty member from each school. Alternate members may participate in all council activities but are eligible to vote only when the voting member appointed for their school is unavailable.

Executive support for the IPE Evaluation Council will be provided by the OIPE Director. The chair of the council and the OIPE Director will jointly report to the VPAA. The IPE Evaluation Council will report at least twice annually, and as requested in relation to specific requests or initiatives, to the IPE Curriculum Council – collating program outcomes and providing evaluative analysis of the TTUHSCEP common IPE experience, as well as overall IPE resources and programming at TTUHSCEP.

IPE RESEARCH AND SCHOLARSHIP COUNCIL

The IPE Research and Scholarship Council shall work collaboratively with the IPE Curriculum and Evaluation Councils to develop a program of research and scholarship based on the IPE programming at TTUHSCEP. In this context, the IPE Research and Scholarship Council is also encouraged to develop collaborations across institutions, and with other relevant academic organizations, to study and generally advance IPE knowledge, theory, and practice.

Voting Members (5)

- Chair (1): Appointed by the Vice President for Academic Affairs
- Members (4): one dean-appointed, IPE-trained, faculty member from each school

Non-Voting Members

- The council's chair may recruit and designate non-voting ad hoc members as necessary to support relevant council-sponsored scholarly projects or initiatives. Non-voting ad hoc members may include any members of the TTUHSCEP academic community, including but not limited to students, residents, fellows, faculty, and academic program staff.

Executive support for the IPE Research and Scholarship Council will be provided by the OIPE Director. The chair of the council and the OIPE Director will jointly report to the VPAA. The IPE Research and Scholarship Council reports annually to the IPE Curriculum Council.

IPE Central Coordination

The OIPE will provide an infrastructure for and provision of centralized coordination of IPE at TTUHSCEP. This will be accomplished through the following processes:

TTUHSCEP IPE Online Catalog and Learning Platform. A major initiative of OIPE is to establish and implement formalized monitoring and tracking of all TTUHSCEP IPE activities and courses in a registry. The registry will be managed using an online course catalog format. IPE activities and courses will be submitted by respective schools' IPE faculty leaders for inclusion in the TTUHSCEP IPE course catalog. For each activity or course, the faculty leader will submit to the OIPE the IPE activity or course description including a detailing of how it meets the definition of IPE: how the activity will enable students of two or more health professions to "learn with, about, and from each other" toward improved collaboration and patient care (WHO, 2010).

The OIPE will use the Canvas learning management system catalog to host and manage the TTUHSCEP IPE course catalog. In addition to catalog capabilities, Canvas Catalog is a learning platform with functionalities for learners' registration, enrollment, course completion (via Canvas), and course completion tracking. The platform may be accessed by internal (TTUHSCEP) faculty, staff, and students and by students from community partner institutions who participate in TTUHSCEP-hosted activities. This feature will enable the OIPE to comprehensively report the provision and consumption of all TTUHSCEP-hosted IPE, while enabling TTUHSCEP faculty and staff's more detailed analyses of activity and course completion by TTUHSCEP students.

Students' registration and completion of all TTUHSCEP-hosted IPE activities will be recorded in Canvas Catalog. Schools may elect to host their online IPE activities and courses directly through the Canvas platform as well. The aforementioned "Introduction to IPE" videos and associated content -- collaboratively designed by the schools' IPE faculty leaders with the support of the OIPE -- will be hosted and managed on Canvas Catalog.

TTUHSCEP IPE Training and Professional Development. Centralized coordination of IPE training and professional development opportunities for faculty and staff will be provided by the OIPE. Funding for 10 faculty and 6 staff members' participation in such training and professional development activities twice per year is included in the proposed QEP budget. Additionally, the OIPE will endeavor to coordinate and host one onsite IPE training session by an industry expert annually.

IPE Councils and Committee Support. Centralized administrative coordination and support of the listed IPE-related councils and committees (refer to organizational structure) will be provided by the OIPE. Councils' and committees' scheduling, recording, and tracking of council and committee actions and action items will be provided by the OIPE.

IPE Activity and Assessment Support. Centralized administrative support will be made available for schools' IPE activities and course offerings by the OIPE. Provision of such support will vary according to resources. Assessment of each IPE activity and course will be the responsibility of the respective program or schools at which the activity is offered. However, since assessment of efficacy and student learning outcomes are critical for the institution's understanding and continuous improvement of the TECH Ready initiative, the OIPE will ensure appropriate assessments are conducted by the respective programs for IPE

offerings (also refer to Table 3 in the subsequent proposal section titled “Assessment”). The OIPE will additionally offer administrative support to schools in the area of assessments by making available recommended assessment tools for IPE offerings.

Academic Credit for IPE Education Efforts. A reported strategy for successful implementation and sustainability of comprehensive integration and utilization of IPE at an institutional level is to provide students the opportunity to gain academic credit for IPE course completion. Such opportunities will be explored in the TTUHSCEP IPE councils and committees. The OIPE will provide coordination support to TTUHSCEP schools wishing to move forward to offer course credit or require students’ completion of designated IPE activities for.

IPE Seed Grant Program. The OIPE will centrally coordinate and manage a seed grant program to schools’ faculty to encourage their design, implementation and offering of IPE activities. The OIPE will provide five \$2000 grants annually for such purposes. The seed grant program will provide a call for proposals to faculty and award the grants based on criteria established and selection by the designated IPE committee.

QEP Institutional IPE Initiative Facilitation, Project Management, Assessment, and Reporting. The OIPE will centrally facilitate and administer the TTUHSCEP TECH Ready initiative, as detailed in this proposal. The OIPE will manage the project tasks and milestones, ensure continuous momentum toward the initiative’s stated goals, assess efficacy in producing the targeted outcomes of the institutional IPE initiative and report the assessment results. This will enable informed and strategic continuous improvement of IPE efforts to ensure institutional programmatic success.

SUMMARY OF STRATEGIES FOR IMPLEMENTATION

To summarize, the TECH Ready initiative will include three primary strategies: (a) implement IPE programming and oversee completion of the IPE shared experience within all TTUHCSEP academic program curricula; (b) provide an organizational structure to support IPE across TTUHSCEP schools and academic programs; and (c) provide central coordination processes to ensure successful implementation of IPE across TTUHSCEP schools. Through these strategies, TTUHSC students across all schools, including distance education students, will have the opportunity to benefit from the Quality Enhancement Plan. The timeline for implementation of the TECH Ready initiative is presented in the following section.

Assessment

A comprehensive assessment plan has been developed to guide the implementation of the TECH Ready initiative. In evaluating the progress of the TECH Ready initiative, emphasis will be placed on the impact of IPE programming on student learning outcomes. Progress toward achieving broader operational goals will also be assessed. In addition, the assessment plan for the TECH Ready initiative was developed with the goal of providing outcomes for continuous improvement planning. The assessment process includes assessment of student learning outcomes and the use of those outcomes to inform improvement and decision-making.

OBSERVABLE RESULTS: MEASURING STUDENT LEARNING OUTCOMES

The underlying theoretical framework for the student learning outcomes identified above is based on the IPEC's work on the Core Competencies for Interprofessional Collaborative Practice (IPEC, 2016). Each of the desired student learning outcomes addresses one of the four overarching core competencies: **Values/Ethics, Roles/Responsibilities, Interprofessional Communication, and Teams and Teamwork.** These core competencies will be categorized into three levels: preparation, theoretical application and practical application.

Outcomes will be assessed at each level, utilizing Miller's proposed framework for assessing clinical competence, also known as Miller's Pyramid (Miller, 1990). The base of the pyramid represents knowledge (knows). This provides the foundation for the development of IPE competence, which is the next level (knows how). This is then followed by performance (shows how), and action (does). Please refer to Figure 2 for a visual representation of Miller's Pyramid and alignment to educational pedagogy and assessment. Individual schools may have additional requirements specific to their program goals, and while assessment related to those requirements will continue, they are beyond the scope of the current QEP proposal and thus will not be reported.

Figure 2. Miller's Pyramid and Alignment with Educational Pedagogy and Assessment

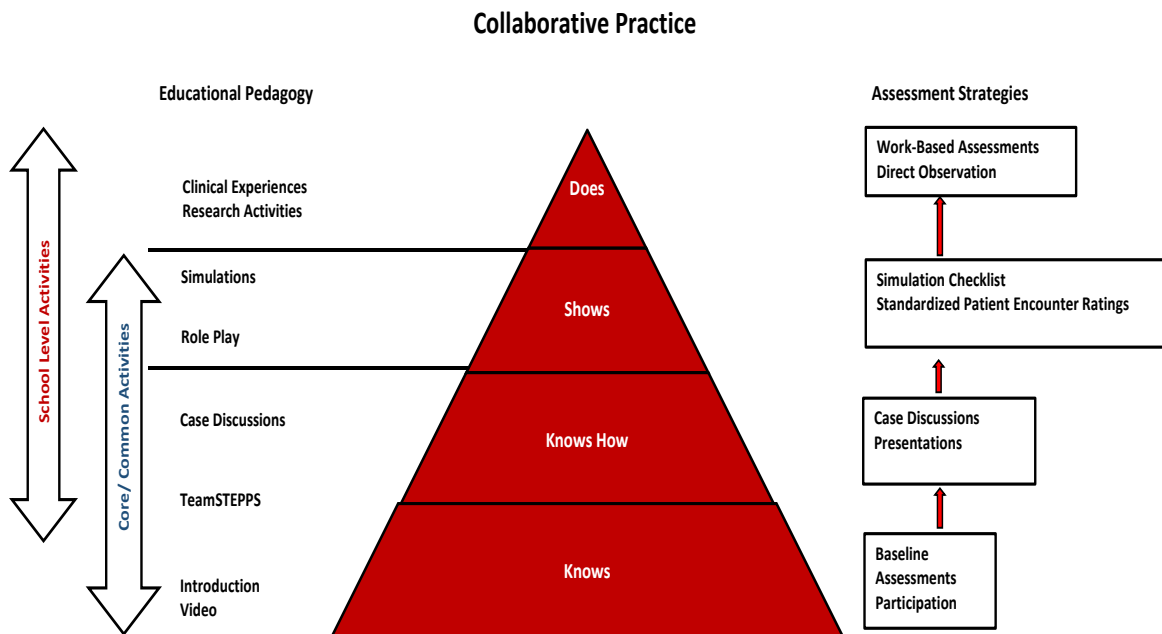


Table 3 below outlines proposed student learning outcomes and corresponding activities and assessments. It also details the distribution schedule of these activities and assessments. Please see Appendix E for proposed assessment templates.

Table 3: Assessment of Student Learning Outcomes

Student Learning Outcome	Activities	Assessment	Distribution Schedule
<p>Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable (Teams and Teamwork)</p>	<ul style="list-style-type: none"> • “TTUHSCEP Introduction to IPE” asynchronous interactive orientation module. Each school will develop materials to complement institutional content. School-level materials will focus on teamwork and communication issues that relate specifically to their professions • TeamSTEPPS Training • TeamSTEPPS Simulations 	<ul style="list-style-type: none"> • Interprofessional Care Core Competencies Global Rating Scale (IPC-GRS). • Interprofessional Collaborative Competency Attainment Scale-Revised (ICASS-R) Survey • Teamwork Attitudes Questionnaire (T-TAQ) Pre/Post Session Self Evaluations • Simulation Observer Documentation Forms 	<ul style="list-style-type: none"> • Orientation module will be part of each school’s orientation session • TeamSTEPPS: Annually in January/early February

<p>Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease (Interprofessional Communication)</p>	<ul style="list-style-type: none"> • TeamSTEPPS Training • TeamSTEPPS Simulations 	<ul style="list-style-type: none"> • Interprofessional Collaborative Competency Attainment Scale-Revised (ICASS-R) Survey • Teamwork Attitudes Questionnaire (T-TAQ) Pre/Post Session Self Evaluations • Simulation Observer Documentation Forms 	<ul style="list-style-type: none"> • TeamSTEPPS: Annually in January/early February
<p>Work with individuals of other professions to maintain a climate of mutual respect and shared values (Values/Ethics for Professional Practice)</p>	<ul style="list-style-type: none"> • Case-based Ethical Analysis on the Opioid Epidemic • Team-based Learning • IPE Special Topics • Research Activities • Annual Research Symposium 	<ul style="list-style-type: none"> • Student Presentations and Discussions • Teamwork Attitudes Questionnaire (T-TAQ) • Individual Readiness Assurance Test (IRAT) • Application Exercise • Satisfaction Survey 	<ul style="list-style-type: none"> • Case-based Ethical Analysis: Annually in April • Team-based Learning: Annually in September • IPE Special Topics: Held at Various Times During the Year • Research Activities: Beginning in First Semester for FGSBS Students • Research Symposium: Annually in April
<p>Use the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of patients and to promote and advance the health of populations (Roles/Responsibilities)</p>	<ul style="list-style-type: none"> • Case-based Ethical Analysis on the Opioid Epidemic • Team-based Learning • IPE Special Topics • Research Activities • Annual Research Symposium 	<ul style="list-style-type: none"> • Student Presentations and Discussions • Teamwork Attitudes Questionnaire (T-TAQ) • Individual Readiness Assurance Test (IRAT) • Application Exercise • Satisfaction Survey 	<ul style="list-style-type: none"> • Case-based ethical analysis: Annually in April • Team-based learning: Annually in September • IPE Special Topics: Held at Various times During the Year • Research Activities: Beginning in First Semester for FGSBS Students • Research Symposium: Annually in April

ASSESSMENT TOOLS AND DEFINITIONS

Baseline IPE Survey for Students. Internally developed survey items regarding IPE perception and experiences at the institution were added to the annual student satisfaction survey to establish a current baseline for the institution in Spring 2023. The questions were derived from the Student Perceptions of Interprofessional Clinical Education Revised (SPICE-R) pre-survey, a commonly used measure to assess general IPE perceptions in students (Fusco & Foltz-Ramos, 2018).

Interprofessional Care Core Competencies Global Rating Scale (IPC-GRS). Perceived IPE competencies will be measured with the Interprofessional Care Core Competencies Global Rating Scale (IPC-GRS) as used by Hunter et al. (2015). The 10 item, 5-point Likert scale instrument measures IPE core competencies across three levels (exposure, immersion, and competence) and three constructs (values and ethics, communication and collaboration).

The IPC-GRS is an internationally recognized assessment of interprofessional care for learners from various health professions, including medicine, nursing, pharmacy, dental, and physical therapy (Hunter et al; 2015; Jones et al., 2021; Konrad et al., 2016). It has been used effectively to specifically assess students' self-perceived learning of the IPE core and sub competencies that address the foundational concepts of interprofessional care which include "interprofessional communication, role recognition amongst professions, collective decision making, conflict resolution, team functioning, and application of competencies across the life span in the context of various settings, populations, and care team models" (Konrad et al., 2016 as cited in Jones et al., 2021).

Interprofessional Collaborative Competency Attainment Scale-Revised (ICCAS-R; MacDonald et al., 2018). The ICCAS-R measures self-reported competencies related to communication, collaboration, roles and responsibilities, collaborative patient-family centered approach, conflict management/resolution, and team functioning. The scale, as revised by MacDonald et al. (2018), consists of 21 items on a 5- point Likert-type response scale.

Studies have used the ICCAS to assess IPE competencies of student groups (i.e., dental, medical, nursing, pharmacy and other health professions) prior to and after their IPE experiences (Langford et al., 2020). The tool was originally designed to encourage students to reflect and self-assess the difference in their "patient-centered, team-based, collaborative care" competencies following an IPE intervention (Archibald et al., 2014 as cited in Langford et al., 2020). The assessment tool was selected because it has been found to be a reliable tool to predict meaningful outcomes on students' attitudes of their interprofessional competency learning (Archibald et al., 2014; MacDonald et al., 2010; Schmitz et al., 2017).

TeamSTEPPS Teamwork Attitudes Questionnaire (T-TAQ). The T-TAQ was selected to assess the efficacy of the TeamSTEPPS IPE activity in evolving learners' attitudes toward interprofessional teamwork. It is a 30-item questionnaire that specifically assesses students' perspectives across five domains: team structure, leadership, situation mentoring, mutual support, and communications. It is a validated assessment tool that was developed as part of the Agency for Healthcare Research and Quality (AHRQ) TeamSTEPPS curriculum (AHRQ, 2008; Baker et al., 2010). The agency provides a comprehensive user guide and validation report on the T-TAQ (AHRQ, 2008), which reports its effective use worldwide in assessing TeamSTEPPS activities involving various health profession learners (Baker & Durham, 2013; Hall-Lord et al., 2021; Najafi et al., 2014; Sweigart et al., 2015).

Individual Readiness Assurance Test (IRAT). Use of IRATs is an integral part of team-based learning, as they assess and promote preparation to progression of activities (Black et al., 2016; Chan et al., 2017; Madigosky et al., 2018). This type of tool has been used to determine the preparation of students in various health professions -- including biomedical sciences, medicine, and pharmacy -- to engage in IPE TBL activities (Black et al., 2016; Chan et al., 2017; Madigosky et al., 2018).

The IRAT will be provided to students individually prior to their specified IPE TBL activity and after watching an informational video on the activity. Our IRAT is a short quiz comprised of 11 multiple choice questions developed by our internal IPE faculty. The tool will be used in conjunction with a team written application exercise and a post-activity questionnaire provided to students individually to assess the TBL student outcomes.

Simulation Observer Documentation Form (Simulation Checklist). Simulation observer forms are used in medical education to observe and report student learning during simulation activities (Moadel et al., 2018). Our 10-item, internally developed form is used by our IPE faculty members who observe students during the specified IPE simulation exercises. Faculty observers are asked to rate the student simulation team as a whole across constructs such as communication, leadership, problem-solving and conflict resolution.

ASSESSMENT OF PROGRAM GOALS

At TTUHSCEP, all academic programs, educational support units, and administrative units are required to engage in the development of assessment plans on an annual basis. Each of these plans is documented in the institution's online assessment management system, Xitrac. Support for these assessment efforts is provided by staff in the Office of Institutional Research and Effectiveness. Each institutional program and unit posts assessment plans for annual achievement of unit goals. The assessment plans contain the mission or purpose statement, goals, measures, target levels, outcomes and documentation level of goal achievement, as well as improvement action plans.

Program Goals for the TECH Ready Initiative. Achievement of the stated purpose and student learning outcomes will require reformation of the current health professions educational process and environment. Thus, implementation of the TECH Ready initiative will focus on three overarching operational goals as follows:

- **Goal 1.** Create an organizational and administrative structure to support IPE.
- **Goal 2.** Establish a culture of IPE by developing IPE learning opportunities and supporting the integration of these opportunities into existing curricula.
- **Goal 3.** Provide the necessary infrastructure and resources to ensure interconnectivity among TTUHSCEP schools in the implementation of IPE initiatives.

Beginning in 2022-23 and annually thereafter, the IPE Senior Director will complete an assessment plan for the TECH Ready initiative. This will include documenting specific findings for assessment methodologies and reflecting on the progress made towards achieving each goal. Based on these findings, the Senior Director, in cooperation with the IPE Curriculum Council, will develop specific action plans to promote continuous improvement of the TECH Ready initiative.

During subsequent academic years, the Senior Director for IPE will engage in a similar assessment process on an annual basis. Typically, assessment actions include revising specific strategies as necessary, modifying assessment measures and target levels, and documenting findings based on results. Thus, the process provides a systematic approach to assessment and offers adequate opportunities for the TECH Ready initiative to evolve based on documented feedback and data-driven decision-making.

Instruments to be considered for measuring the success of the TECH Ready initiative from an operational perspective, include the following:

TECH Ready Activity Logs. Appropriate logs will be kept to monitor student and faculty participation in IPE professional development activities and educational programming.

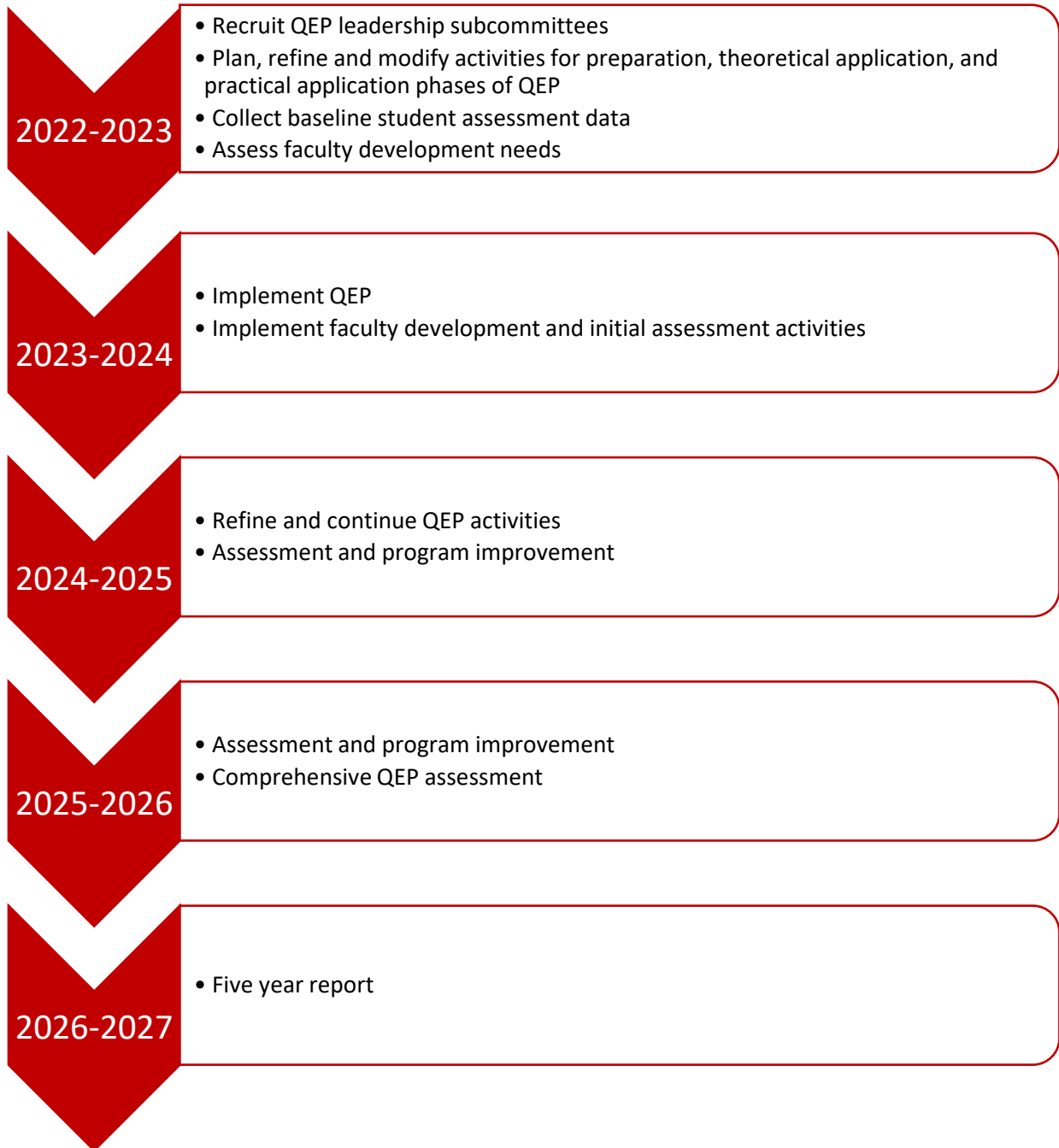
Interprofessional Attitudes Faculty Survey. The Interdisciplinary Education Perception Scale (IEPS) will be distributed at regular intervals to TTUHSC faculty to measure interprofessional attitudes. The IEPS is composed of a 12 item, 6-point Likert scale, including three subscales: competency and autonomy, perceived need for cooperation, and perception of actual cooperation (McFadyen, Maclaren, & Webster, 2007).

Perceived IPE Competencies Faculty Survey. Perceived IPE competencies will be measured using the IPC-GRS as used by Hunter et al. (2015). The 15 item, 5-point Likert scale instrument measures IPE core competencies across three levels (exposure, immersion, and competence) and three constructs (values and ethics, communication and collaboration).

Instructor IPE Facilitation Skills. IPE-trained faculty's ability to conduct an IPE training session will be measured utilizing the Interprofessional Facilitation Scale (IPFS) (Sargent, Hill & Breau, 2010). The IPFS is an 18-item scale that assesses IPE facilitation skills. Utilizing this instrument, IPE learning session trainees (students) will evaluate faculty's IPE facilitation skills. In addition, faculty can utilize the scale as a self-assessment of their IPE facilitation skills. Results will identify strengths and potential areas for development and differences in ratings among raters.

Timeline

The timeline for implementing various activities associated with TECH Ready is shown below. New positions have been established, and many key personnel will be recruited from current faculty and staff. To date, most of these positions have been identified and leadership recruited.



Resources

The TTUHSCEP QEP five-year budget reflects the budgetary needs for implementation and operation of the TECH Ready initiative. In terms of personnel resources, the budget includes funding for the salaries of OIPE personnel (one full time employee (FTE) director, one FTE program coordinator, and one FTE analyst/evaluator). The budget additionally includes funding for faculty support (IPE activity participation, curriculum development, leadership committee participation), IPE activity staff support (activity planning and participation), IT staff support to address the software needs of the IPE initiative and funding for the use of standardized patients for specific IPE simulation activities. For faculty and staff development in IPE, the budget includes funding for attendance to training programs and industry conferences for 10 faculty and six staff (two events per year), and one onsite training session per year. Funding is included for the following initiative resources: OIPE staff technology devices, software to host and track IPE activities, resources for specific activities (food and materials), research and scholarship support and the initiative’s marketing campaign. The budget includes funding for internal and external assessment and evaluation of IPE individual activities and the TECH Ready QEP initiative as a whole. Finally, the budget includes funding to be made available in seed grants to faculty to develop and implement IPE activities.

Table 4: TTUHSCEP QEP Five-year Budget

TTUHSCEP Budget for QEP: TECH Ready					
Budget Categories	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Personnel					
OIPE Department, Initiative Director	\$91,000	\$100,000	\$103,000	\$106,000	\$116,500
OIPE Program Coordinator	\$50,000	\$51,500	\$53,000	\$55,000	\$56,650
OIPE Lead Analyst	\$60,000	\$61,500	\$63,000	\$65,000	\$66,650
Equipment					
OIPE Computer/Materials	\$15,000	\$0	\$0	\$0	\$15,000
Research and Scholarship Support	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Faculty Support; Instructor/curriculum support; Council Support	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Activities Implementation (i.e., standardized patients, food, events, materials, activity resources)	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Faculty Development/Training Registration; IPE trainer	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Staff Development/Training Registration; training programs and industry meetings	\$10,800	\$10,800	\$10,800	\$10,800	\$10,800
Assessment and Evaluation Internal assessment; Observers	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Consultants/External Evaluation	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Travel Conferences/events	\$32,000	\$32,000	\$32,000	\$32,000	\$32,000
IT Support Canvas Catalog; Elentra License; Activity Registry License; SPSS +	\$77,000	\$77,000	\$77,000	\$77,000	\$77,000

Qualtrics license; IT support for web-based activities and events					
Marketing	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Marketing campaign for IPE Initiative; Promotional materials; Website; Photographer and videographer					
Seed Grants	\$0	\$10,000	\$10,000	\$10,000	\$10,000
TOTAL PROJECT COST	\$810,800	\$822,800	\$828,800	\$835,800	\$864,600

Note: projections will be presented by IPE Resources Subcommittee

The QEP leadership team along with the President, VPAA and Deans will annually review the budget and need for supplementary resources. Additionally, there may be opportunities for external fundraising for TECH Ready. For instance, the Office of Academic Affairs, in collaboration with OIRE and OIPE is in the process of applying for a twenty thousand dollar grant from the American Association of Medical Colleges (AAMC). If funded, the grant will allow TTUHSCEP to fund five additional faculty members’ IPE training for two years.

Conclusion

A significant component of TTUHSCEP’s mission is to enrich the lives of others by educating students to become collaborative healthcare professionals. In addition to producing healthcare professionals who are knowledgeable in their respective disciplines, TTUHSCEP aims to develop engaged and productive members of future healthcare teams, who are prepared to meet tomorrow’s healthcare needs through interdisciplinary collaboration. For these reasons, the institution’s QEP, TECH Ready, will focus on IPE. Multiple individuals across TTUHSCEP were involved in the development of the QEP topic, including students, faculty, staff, and administrators. These stakeholders will also be involved in the implementation of the proposed learning strategies in order to accomplish the desired student learning outcomes. Successful achievement of desired student learning outcomes will contribute to the broader goal of preparing students to navigate the challenges of complex healthcare systems and enter the workforce ready for interprofessional collaborative practices that help ensure the health of individuals and populations. A combination of direct and indirect measures will be used to assess the achievement of these student learning outcomes. Lastly, TTUHSCEP has committed the financial, personnel and equipment resources to initiate, implement and complete the TECH Ready initiative over the next five years.

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Appendices



QEP Topics Data Review

- Sources
 - 2020/2021 TTUHSC El Paso Student Satisfaction Surveys
 - 2019/2020/2021 AAMC Graduation Questionnaire
 - 2020/2021 GSBS Post-Bac and Master's Exit Surveys
 - 2019/2020 GGHSON Exit and Alumni Surveys
 - 2020 TTUHSC El Paso Wellness Assessment
- Method
 - Quantitative data review
 - Theme analysis
 - Frequencies



Inter-Professional Education

2020/2021 TTUHSC El Paso Student Satisfaction Surveys

- "I have sufficient opportunities to learn from practitioners in other health care professions"
 - 2020: 81% combined agreement (n=214)
 - 2021: 71% combined agreement (n=158)
- Qualitative comments (n=9)
 - Request for more interactions with other health-related disciplines
 - More interaction with students from other schools
 - Some comments suggest a lack of awareness of the value of IPE.



QEP Topics/Themes

- Inter-Professional Education
- Student Wellness
- Academic Support



Inter-Professional Education (Cont.)

2020 AAMC Graduation Questionnaire

- "...how often during medical school have supervising residents or faculty members directly observed you collaborating as a member of an interprofessional team and provided you with immediate feedback...?"
 - PLFSOM:
 - "More than 10 times:" 61% (n=67)
 - All medical schools
 - "More than 10 times:" 72% (n=16,022)

Inter-Professional Education (Cont.)

Qualitative Comments

- 2020/2021 **GSBS Post-Bac and Master's Exit Surveys** (n=14)
 - Overall, students appreciated the opportunity to participate in research in a variety of fields
 - Mentorship from faculty from various fields
 - Request for more exposure to medical school experiences and medical students
 - Request for more exposure to health-related areas
 - Request for more exposure to health-related community work
- 2019/2020 **GGHSON Exit and Alumni Surveys** (n=4)
 - Request for more integrated work with medical students
 - Collaborative simulations
 - Request for more visibility for the school of nursing that is comparable to the medical school

Student Wellness

• 2020/2021 TTUHSC El Paso Student Satisfaction Surveys

- "Student Wellness Center"
 - 2020: 78% combined satisfaction (n=203)
 - 2021: 63% combined satisfaction (n=142)
- Qualitative Comments (n=13)
 - Overall lack of wellness resources for students
 - Resources are either unavailable or difficult to access
 - Student wellness is not prioritized
 - Wellness is not integrated into the institution

Student Wellness (Cont.)

- 2019/2020/2021 **AAMC Graduation Questionnaire**
 - "Student programs/activities that promote effective stress management, a balanced lifestyle and overall well being"
 - PLFSOM:
 - 2019: 80% combined satisfaction (n=75)
 - 2020: 70% combined satisfaction (n=59)
 - 2021: 42% combined satisfaction (n=48)
 - All medical schools
 - 2019: 69% combined satisfaction (n=14,109)
 - 2020: 68% combined satisfaction (n=14,055)
 - 2021: 66% combined satisfaction (n=14,172)

Student Wellness (Cont.)

- 2020 **TTUHSC EP Student Wellness Assessment**
 - Overall mean scores below 75% percentile
 - Emotional Wellness: 17.3/25 (n=59)
 - Positive body image; coping with daily stress
 - Creative Wellness: 16.9/25 (n=48)
 - Appreciation for the arts and personal artistic expression
 - Career Wellness: 33.9/50 (n=54)
 - Work/life balance; stressful work environment
 - Financial Wellness: 23.7/35 (n=54)
 - Money management; savings for emergencies; debt
 - Physical Wellness: 43.5/70 (n=59)
 - Diet/exercise; substance use to manage stress
 - 2020/2021 GSBS Post-Bac and Master's Exit Surveys (n=0)
 - 2020 GGHSON Exit and Alumni Surveys (n=0)



Academic Support

- **2020/2021 TTUHSC EP Student Satisfaction Surveys**
 - “Academic advising in my field of study”
 - 2020: 81% combined satisfaction (n=200)
 - 2021: 73% combined satisfaction (n=147)
 - Qualitative Comments (n=49)
 - Request for better support for students
 - Advising, academic counseling, mentorship
 - More guidance for students navigating through school
 - More internal resources as well as more access to current resources



Academic Support (Cont.)

- **2019/2020/2021 AAMC Graduation Questionnaire**
 - Satisfaction with faculty mentoring
 - PLFSOM:
 - 2019: 78% combined satisfaction (n=81)
 - 2020: 72% combined satisfaction (n=60)
 - 2021: 72% combined satisfaction (n=49)
 - All medical schools
 - 2019: 81% combined satisfaction (n=14,990)
 - 2020: 80% combined satisfaction (n=14,781)
 - 2021: 81% combined satisfaction (n=14,960)
 - 2020/2021 GSBS Post-Bac and Master's Exit Surveys (n=0)
 - 2020 GGHSON Exit and Alumni Surveys (n=0)

Appendix B

QEP Review Committee Members

Name	Title
Richard Lange, M.D., M.B.A.	President, Dean – Paul L. Foster School of Medicine (PLFSOM)
Richard Brower, M.D.	Vice President for Academic Affairs
Christiane Herber-Valdez, Ed.D.	Assistant Vice President for Academic Affairs
Manuel de la Rosa, M.D.	Vice President for Outreach and Community Engagement
Stephanie Woods, Ph.D., R.N.	Dean – Gayle Greve Hunt School of Nursing (GGHSON)
Rajkumar Lakshmanaswamy, Ph.D.	Dean – L. Fredrick Francis Graduate School of Biomedical Sciences (FGSBS)
Richard Black, D.D.S.	Dean – Woody L. Hunt School of Dental Medicine (WLHSDM)
Irene Alexandraki, M.D.	Associate Dean for Student Affairs - PLFSOM
Koko Aung, M.D.	Vice President for Faculty Success
Robin Dankovich, Ed.D.	Assistant Vice President – Student Services and Student Engagement
Academic Affairs Management/Support Team	
Oliana Alikaj-Fierro, Ph.D.	Managing Director – Office of Institutional Research and Effectiveness (OIRE)
Julie Blow, Ph.D.	Assistant Managing Director of Institutional Assessment and Accreditation - OIRE
Veronica De Lara, M.B.A	Section Coordinator – OIRE
Veronica Rodriguez	Executive Associate – Academic Affairs



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Office of Academic Affairs & Office of
Institutional Research and
Effectiveness

**QEP Review
Committee
Kick-off
Minutes**

Friday, August 20, 2021
10:00 A.M. – 11:30 A.M.
MBSII, Presidential
Conference Room

Attendees

Members:	President	Richard Lange, M.D.	Present
	Office of Academic Affairs	Richard Brower, M.D.	Present
	Office of Academic Affairs	Christiane Herber-Valdez, Ed.D.	Present
	Office of Institutional Research & Effectiveness	Oliana Alikaj-Fierro, Ph.D.	Present
	Office of Institutional Research & Effectiveness	Julie Blow, Ph.D.	Present
	GGHSON	Stephanie Woods, Ph.D., R.N.	Present
	GSBS	Rajkumar Lakshmanaswamy, Ph.D.	Present
	WLHSDM	Richard C. Black, D.D.S.	Present
	Outreach and Community Engagement	J. Manuel de la Rosa, M.D.	Present
	Student Services & Student Engagement	Robin Dankovich, Ed.D.	
	PLFSOM OME	Irene Alexandraki, M.D.	Present
	Faculty Success	KoKo Aung, M.D.	Present
Recorded by:	Office of Academic Affairs	Veronica Rodriguez	Present
	Office of Institutional Research & Effectiveness	Veronica De-Lara	Present

Summary

Agenda Item	Discussion	Conclusion(s) and/or Action Item(s)
1. Welcome – R. Brower		Meeting called to order at 10:08 AM
2. Overview of SACSCOC Standard 7.2: QEP – C. Herber-Valdez	<ul style="list-style-type: none"> Quality Enhancement Plan (QEP) is a major requirement for SACSCOC reaffirmation Currently in Phase I which is the topic selection Identify a topic to enhance overall institutional quality and effectiveness and specifically 	Submit QEP to SACSCOC by March 2023

	focused on improving student learning outcomes and student success	
3. QEP Planning Update – C. Herber-Valdez	<ul style="list-style-type: none"> • PowerPoint presented to the QEP Committee (Exhibit A) <ul style="list-style-type: none"> ○ How is Student Learning Outcome Defined within Context of QEP? ○ Unpacking Standard 7.2: QEP ○ What Can Be Enhanced? ○ Important for QEP Topic Selection ○ Important for QEP Plan ○ Timeline 	
4. Data Review and Findings – Major Topics/Themes – J. Blow	<ul style="list-style-type: none"> • PowerPoint presented to the QEP Committee (Exhibit A) <ul style="list-style-type: none"> ○ QEP Topics Data Review (Sources & Method) ○ QEP Topics/Themes 	3-Main Topics/Themes: 1. Inter-Professional Education (IPE) 2. Student Wellness 3. Academic Support
5. Reflection and Discussion – All Participants	<p>Q&A and discussion ensued:</p> <ul style="list-style-type: none"> • Q: For PLFSOM data at 61% and national average at 72%; what is the range, is 61% the lowest percentage of all the medical schools, and where do we rank? A: Benchmark report available which provides data, it varies from item to item on the GQ. Recalls that PLFSOM ranks in mid to lower range • Q: Student wellness data, are results from all students of 4 years of medical, nursing, and graduate school or only students who are graduating? A: Wellness survey was distributed to all students, but only one time. Database is available with raw data to stratify, look at a particular class and historical data over a period of time • Q: Student data, was survey sent to all students irrespective of year, with student population at 700-750, what was the number of respondents A: Response was 69, low return of participation • Q: What were reasons the 3-topics were chosen among many other data that were 	<p>Review QEPs performed from institutions in Texas in recent years</p> <p>Review publish list for examples of QEPs/ IEPs going back to 2007; look for results; how were they accessed/evaluated?</p>

	<p>collected</p> <p>A:</p> <ul style="list-style-type: none"> ○ IPE identified as a gap with institutional and school strategic plans for SOM/SDM ○ Student satisfaction surveys responses include comments about collaboration ○ Wellness has been identified by students and in the institutional strategic plan ○ Academic support comes up in data sources <ul style="list-style-type: none"> ➤ In process of reviewing our institutional data the Office of Institutional Research and Effectiveness (OIRE) looked at all comments, did a theme analysis, and these topics came up on top <ul style="list-style-type: none"> ● Q: Wellness is a broad topic and need to narrow meaning, do students mean healthy living, increase fruit and vegetable intake, exercise, stress management, mental health, depression, etc. ● Update on current institution wellness, academic support, IPE structure: <ul style="list-style-type: none"> ○ Structures are in place to work on and improve wellness and academic support ○ IPE is completely ad-hoc (volunteer) <ul style="list-style-type: none"> ➤ Every other established academic health center in Texas has an office, a standing defined committee with a charge, support for IPE that is structural, we are not even there ➤ We belong to the state-wide consortium for IPE which meets regularly but our participants are ad-hoc ● Opportunities exist in the curricula to bring students together <ul style="list-style-type: none"> ○ IPE opportunities exist with SON and SOM if both use a student approach from a curriculum standpoint ○ If you look at foundational skills, bring dental, medical, and nursing students together to focus on commonly used skills across all healthcare providers ○ Maybe there could be a research course that is interdisciplinary and students 	
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	<p>come together, there are research themes that get developed, that maybe become long-term research themes that bring these disciplines together</p> <ul style="list-style-type: none">○ Shared objectives could include medical and dental students together in immersion for community based research and immersion and culture; putting them together in SCI.○ Immersion is part of SCI it is assessed and has competencies <ul style="list-style-type: none">● Ways to bring students together on research projects.<ul style="list-style-type: none">○ On regular basis SARP students from medical school come into the lab and graduate students working in the lab. It is not a formalized collaboration but it is informal, they are working in the same lab and working together on the same projects, this can be considered IPE.○ Graduate school side, evidence of SARP students and graduate students being co-authors, they have worked together● Q: Do survey respondents, the students, realize these are different forms of IPE, e.g., understand of ward rounds vs. teaching rounds.<ul style="list-style-type: none">○ Part of the educational process of our students respondents understanding these examples are indeed IPE opportunities● As a health sciences center, we are doing the minimum at the classroom-based and simulation-based IPE activities are very formal structural they fit in terms of assessment, again medical school focused<ul style="list-style-type: none">○ Keep up with accreditation expenses, IPE occurs in actual clinical settings, real clinical environments. Will have some complexity to it and we need a commitment in terms of coordinating resources● From GSBS standpoint hears students saying, what is health related applicable research look like and how does it integrate into our	
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	<p>community as well. He does not think we are doing a good job of integrating with GSBS</p> <ul style="list-style-type: none">• From GSBS point of view, program is very traditional, structured, very rigid and based on the coordinating board's requirement they cannot change too many things because of the requirement of credit hours. In term of IPE for the graduate students, we are trying to create volunteer opportunities for IPE but cannot be factored into the curriculum the way it is set up.• Community-based question from graduate school students, request was made not to focus IPE just on practice, curriculum, specialty<ul style="list-style-type: none">○ Students would like informal opportunities to interact with other health care professionals (e.g., days of service, going out into the community and doing community based events, etc.)○ IPE is also about informal ad-hoc interactions between nurses & doctors, dentist & doctors, nurses & dentists, nursing students & medical students○ Don't forget about the community, in terms of interdisciplinary practices rotating through FQHCs, and informal volunteer activities• IPE events, planned events, where the focus is combined events to address a need in the community, but also bring students together to work as team. Incorporated where students have these opportunities, they can become structured/formal IPE activities or events.• Accreditation requirements,<ul style="list-style-type: none">○ Formal requirements, students are supposed to be learning with and about each other and fulfilling educational objections that relate specifically to IPE and these need to be assessed.○ Informal and community based parts are very important and we have to have the underlying core which is we are fulfilling the formal education expectations that include actual IPE learning objectives that are assessed.	
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	<ul style="list-style-type: none">• Clinical setting, the IPE's there happen organically because they are around their teams, e.g., social worker, case manager, pharmacist, nurse • Consider IPE for Faculty development<ul style="list-style-type: none">○ Train faculty to be able to highlight what IPE collaboration is, how you appreciate the other health professions, skills and contributions to the team○ Nursing could be another partner○ Help faculty to make sure the students understand IPE events, that you do IPE every day. We just need to call attention to it and integrate all the disciplines to make it work • Additional reasons for IPE as a QEP topic:<ul style="list-style-type: none">○ IPE is not only a good topic because it is an area of weakness, but it is also institutionally structurally unsupported, we do not even have a started point for IPE, except for some volunteers and they do not get credit for what they do. Which is a constant feedback he has gotten about this. We do all this work but nobody realizes it and does not count towards anything.○ Although we could do student academic support project and there is a lot of complexity and we could do a lot more in that area, but we do have structure and we have a basis for bringing it up and improving.○ We have the same thing for wellness as a broad umbrella topic○ Use QEP to create this new element and really solidify it and then we will have the next QEP and other activities we are doing around QEPs • Recommendation to reconvene and bring us the data from those other programs so they can look at what went wrong and how narrow our focus should be. IPE data from Lubbock, San Antonio, Dallas<ul style="list-style-type: none">○ What information they look at	
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	<ul style="list-style-type: none"> ○ Focused on IPE what were the good things and bad things that happened ○ What did SACSCOC say, good idea or bad idea ○ Interesting to look at other schools, how to measure the learning outcomes as it relates to IPE <ul style="list-style-type: none"> ● Q: Do we have a 4th topic/theme option that we have not talked about. <ul style="list-style-type: none"> ○ Other than IPE, what have other institutions chosen in the recent years <ul style="list-style-type: none"> ➤ They do publish a list, sort by health sciences, universities, or institutions ● SDM is offering dental/public health certificate. Suggested this is something they can share amongst all the schools in the health sciences center. This may be something we could add to our discussion. <ul style="list-style-type: none"> ○ Can this be incorporated in to a IEP/QEP ● The QEP has to be aligned to “student outcomes/student success” 	
6. Next Steps – C. Herber-Valdez	Preliminary Agenda: <ul style="list-style-type: none"> ● IPE data and experiences from other Texas institutions ● Other than IPE, what have other institutions chosen in the recent years ● Confirm preliminary decisions 	Reconvene QEP Committee in 4-6 weeks
7. Adjourn – R. Brower		Meeting adjourned at 11:28 AM
Attachments		
Exhibit	Title	Provided by
Exhibit A	Quality Enhancement Plan (QEP) PowerPoint	Office of Academic Affairs & Office of Institutional Research and Effectiveness



QEP Review Committee Meeting

Tuesday, October 05, 2021

4:00 P.M. – 5:00 P.M.

MSB2 5C222, President's Conference Room

Minutes

Attendees Present:

Richard Lange, M.D.

Richard Brower, M.D.

Stephanie Woods, Ph.D.

Richard Black, D.D.S

Christiane Herber-Valdez, Ed.D.

Oliana Alikaj-Fierro, Ph.D.

Julie Blow, Ph.D.

Irene Alexandraki, M.D.

Koko Aung, M.D.

Manuel de la Rosa, M.D.

Rajkumar Lakshmanaswamy, Ph.D.

Robin Dankovich, Ph.D.

Veronica Rodriguez

Veronica De Lara, B.M.S

I. Welcome

Dr. Brower welcomed everyone. Minutes from the August 20, 2021 meeting were reviewed

II. QEP Committee support team update

Dr. Brower provided an update of the QEP Committee support team, which included action items from the prior August meeting and the President's committee with an overview of recent QEP topics from other health-related institutions and an overview of Texas HRI's who chose IPE as their topics.

III. QEP Texas Results from a Longitudinal Study

Dr. Alikaj-Fierro presented data from a study conducted by Dr. David Allen regarding QEPs conducted at all institutions in Texas (Allen, D.A., 2020, December).

a. Review of QEPs at Texas Institutions 2007-2018

Dr. Alikaj-Fierro concentrated on the factors of success of Texas institutions' QEPs. Dr. Allen conducted a survey (42% response rate) which was disseminated to all institutions and the factors associated with success follow:

1. Senior leadership commitment and support from the top down.
2. Alignment with institutional plans and priorities.
3. How well-organized was the QEP implementation-need for student involvement.
4. Engagement of campus with QEP
5. Institutional resources to support QEP – financial time-wise.
6. Scope of the project.

b. Lessons Learned

1. Support from the top down is vital
2. Early buy-in from stakeholders is needed for initial and sustainable success.
3. Topic should emerge from strategic planning and needs.
4. Keep it focused.
5. Monitor the data.
6. Carefully choose faculty and staff to lead the project.
7. Should be relevant for the majority of students.
8. Study what others have done.
9. Pay careful attention to naming your QEP. Marketing is crucial to the QEP's success.

c. Texas HRIs: Recent QEP Topics

A handout provided topics such as wellness, IPE, and general education, i.e. critical thinking. The data provided was dated from 2011 to 2021. Dr. Brower also commented that HRIs tend to follow through with a certain set of predictable projects related to their organizational needs and maturation. Choosing the topic isn't really the creative/innovative moment, the topic should arise from institutional strategic planning.

d. Other QEP Studies

Dr. Brower explained the QEP support team met with QEP Directors from UT Southwestern, UTMB, and TTUHSC - Lubbock to discuss IPE as a QEP topic. Strengths, weaknesses, and lessons learned were reviewed and discussed with the QEP Review Committee.

Dr. Alikaj-Fierro provided a summary of three other QEP/IPE Directors:

1. Dr. Renee J. Bogenschutz, IPE Director
Texas Tech University Health Science Center - Lubbock
Interprofessional Teamwork: 2009
 - Performed a gap analysis with IPE consultant
 - Centralized system for IPE:
 - Registered IPE online course – Foundations of Interprofessional Collaborative Practice
 - At least one registered IPE learning activity (case-based, small group, team building, service-learning, and simulation)
 - Faculty development/preceptor training to enhance the learning environment for health professions learners

Dr. Bogenschutz serves as the convener for the Texas Coalition for IPE. Ten of the 15 medical schools are members.

2. Dr. Nancy Greulich, QEP Director
The University of Texas Southwestern Medical Center
Team FIRST: 2019

- Steering committee was formed to assess needs
- Alignment with the strategic plan
- Input from multiple sources
- Narrowed focus to IPE topic:
 - Considered applicability to all schools
 - QEP Steering Committee considered a list of proposals from faculty
 - Interprofessional communication
- Faculty recruitment, development, and training. Also discussed was an IPE certificate.

3. Dr. Monte Smith, QEP Director

The University of Texas Medical Branch (UTMB)

IPE² Practice: 2018

- Expansion of prior QEP
 - Formalized IPE curriculum
- Built upon the current IPE curriculum to meet gaps discovered through the first QEP, “This focus prepares practitioners for the future of health care in a team-based approach.”
- Faculty Development and Training

Lessons learned by the three QEP/IPE Directors:

1. Consider using a curriculum consultant
2. Keep the topic focused
3. Clearly defined goals that are measurable
4. Student outcomes:
 - Measurable
 - Focused
 - Collect both quantitative and qualitative data if possible
5. Develop manageable processes
6. Document the process and any changes made in real-time
 - Review data regularly and make adjustments

Reflections of TTUHSC El Paso QEP/IPE team after the above discussions:

IPE as a QEP

1. Ability to expand on current IPE curriculum
2. Avenue to move the organization of IPE to the institutional level
3. Opportunity to tailor IPE at the student/school level
4. Opportunity for faculty development
5. Aligned with accreditation requirements
6. Aligned with the strategic plan

7. Opportunity for collaboration

Dr. Brower commented that IPE is important for CCNE. Dr. Stephanie Woods indicated that the institution would be well-served to tie IPE to patient safety. It may be possible to add patient safety into QEP II.

III. Reflections and Discussion

The group discussed that IPE as the QEP topic would be a great opportunity for TTUHSC El Paso to rise to the level of every other HSCs in Texas. Most HSCs across the country have an institutional-level coordinating group that organizes, tracks, and promotes IPE. TTUHSC El Paso can do some new, creative, and innovative work while capturing what we are already doing. The institution has already implemented elements of IPE. We need to capture and systematically label these as IPE experiences and ensure that those experiences are in the spectrum, including learning expectations across all programs.

The group provided feedback regarding IPE topics listed in the meeting handout. There were trending topics from the list including IPE, wellness, clinical reasoning/critical thinking/evidence-based practice, thought process, translating research into practice, professionalism/ethics/cultural competence. There was concern voiced regarding IPE faculty development for the medical and nursing school. Adding the time and effort for faculty development as well as space limitation are the greatest concerns. Additionally, group members indicated that topics such as critical thinking and professionalism/ethics would fit well within TTUHSC's Values-based Culture initiative as well as the strategic plan.

The group discussed that TTUHSC El Paso already has four large-scale IPE activities throughout the year and rotating student groups through the UTEP programs four times per year. The problem is sustaining that effort and making it more efficient. There will be a substantial expectation of a faculty development component no matter what topic is selected.

The group also addressed establishing a formal structure and dedication of resources in the next five years. It was also noted that IPE and professionalism are both on the CODA standards. Additionally, if student buy-in is necessary, an emerging topic is wellness, especially after the COVID-19 pandemic.

Dr. Brower called for a vote of the QEP topic based on the following SLOs: A) IPE, B) Wellness, C) Professionalism/ethics, and D) Clinical/Critical Reasoning. The final committee vote was A) IPE – 4 votes, B) Wellness – 2 votes, C) Professionalism/ethics – 2 votes, and D) Clinical/Critical Reasoning – 1 vote.

IV. Confirmation of Action Items

A request to the Deans will go out for committee members for the QEP/IPE Steering Committee. Dr. Alikaj-Fierro confirmed with the QEP Review Committee that the topic to be developed for the QEP would be IPE. The committee confirmed this.

V. Adjourn

Meeting adjourned at 4:56pm.

Appendix C

QEP Steering Committee Members

TTUHSCEP QEP STEERING COMMITTEE		
OFFICES OF ACADEMIC AFFAIRS		
Richard Brower, M.D.	Vice President for Academic Affairs	Office of Academic Affairs
Christiane Herber-Valdez, Ed.D.	Assistant VP for Academic Affairs	Office of Academic Affairs
Michele Williams, Ph.D.	Associate Managing Director	Office of Academic Affairs
Oliana Alikaj-Fierro, Ph.D.	Managing Director	Office of Institutional Research and Effectiveness (OIRE)
INSTITUTIONAL-LEVEL REPRESENTATIVES		
Robin Dankovich, Ed.D.	Assistant Vice President	Office of Student Services and Student Engagement
Jose Manuel de la Rosa, M.D.	Vice President	Office of Outreach and Community Engagement
Loretta Flores	Executive Associate	Office of Outreach and Community Engagement
Scott Crawford, M.D.	Director of Simulation	Simulation Training Center
Hector Aranda	Senior Director	Simulation Training Center
Brian Wilson	Director of Simulation Education	Simulation Training Center
Andrea Tawnay, Ph.D.	Vice President	Office of Institutional Advancement
Koko Aung, M.D.	Vice President	Office of Faculty Affairs
Jessica Fisher	Executive Director	Business Affairs
Rosie Sanchez	Managing Director	Information Technology
Lisa Beinhoff, Ph.D.	Managing Director	Library
Milagros De Jesus Rivera, M.L.S.	Public Service	Library
SCHOOL-LEVEL REPRESENTATIVES		
Manuel Santa Cruz, D.N.P., R.N.	Assistant Dean	GGHSON
Stephanie Woods, Ph.D., R.N.	Dean and Professor	GGHSON
Armando Meza, M.D.	Associate Dean	GME
Rajkumar Lakshmanaswamy, Ph.D.	Dean	GSBS
Maureen Francis, M.D.	Interim Associate Dean for Medical Education and Professor	PLFSOM
Linda Ellis, M.D.	Associate Professor	PLFSOM Office of Student Affairs
Thwe Htay, M.D.	Assistant Dean of Student Affairs and Associate Professor	PLFSOM
Claudia Didia, M.D.	Associate Professor	PLFSOM
Lee Rosenthal, Ph.D., M.S., M.P.H.	Assistant Professor	PLFSOM
Neha Sehgal, M.D.	Assistant Professor	PLFSOM
Jan Kronmiller, D.D.S., Ph.D.	Professor	WLHDM
Wenlian Zhou, D.M.D., D.D.S.	Professor	WLHSDM

STUDENT REPRESENTATIVES		
Emily Lloyd	Student	GGHSON
Jacob Nicasio	Student	GSBS
Obaro (Tobi) Okopie	Student	PLFSOM
Georgia Blackwell	Student	WLHSM
Community Partners: University of Texas at El Paso		
Margie Padilla, PharmD	Clinical Associate Professor	Pharmacy
Patricia Lara, Ph.D.	Clinical Associate Professor	Speech Language Pathology
Jacob Martinez, Ph.D., B.S.N.	Assistant Professor	School of Nursing
Academic Affairs Management/Support Team		
Julie Blow, Ph.D.	Assistant Managing Director	OIRE
Veronica De Lara, B.M.S.	Section Coordinator	OIRE
Veronica Rodriguez	Executive Associate	Office of Academic Affairs
Alfonso Pacheco, M.P.A.	Program Manager	Office of Academic Affairs

QEP Steering Committee Meeting Minutes
April 22, 2022
4:00 P.M. – 5:00 P.M.
MSB2 5C22, President’s Conference Room

Attendees

Richard Brower, M.D.	Manuel Santa Cruz, D.N.P., R.N.
Christiane Herber-Valdez, Ed.D.	Stephanie Woods, Ph.D., R.N.
Oliana Alikaj-Fierro, Ph.D., M.B.A.	Armando Meza, M.D.
Julie Blow, Ph.D.	Rajkumar Lakshmanaswamy, Ph.D.
Koko Aung, M.D.	Maureen Francis, M.D.
Lisa Beinhoff, Ph.D.	Linda Ellis, M.D.
Scott Crawford, M.D.	Thwe Htay, M.D.
Robin Dankovich, Ed.D.	Claudia Didia, M.D.
Jessica Fisher	Lee Rosenthal, Ph.D., M.S., M.P.H.
Loretta Flores	Neha Sehgal, M.D.
Hector Aranda	Jan Kronmiller, D.D.S., Ph.D.
Milagros De Jesus Rivera, M.L.S.	Wenlian Zhou, D.M.D., D.D.S.
Rosie Sanchez	Stephanie Woods, Ph.D.
Andrea Tawnay, Ph.D.	
Michele Williams, Ph.D	
Brian Wilson	

Agenda Items:

I. Call to Order

Dr. Brower called the meeting to order at 4:00 p.m.

II. Review of Meeting Minutes

Dr. Herber-Valdez reviewed and requested approval of the prior meeting minutes. The meeting minutes were approved.

III. Curriculum Committee

Dr. Brower discussed the rationale for the Training and Educational Center for Healthcare Simulation (TECHS) Director’s position on the organizational chart.

Sharing of flexible staff

Already and existing institutional resource

Also discussed was the proposal to make TECHS Director part of the curriculum committee. However, the role within the committee should be left ambiguous so as not to alienate other schools; though TECHS Director is structurally at the institutional level and the chair should be an institutional person.

The positive aspect of this structure is that it utilizes existing resources. It was suggested to get the feedback about the structure from the committee first, then present it to Dr. Lange for additional feedback and approval.

The committee discussed whether the OIPE senior director would sit on the curriculum committee. Four additional councils that report to the curriculum committee, similar to the structure of UT Health Center – San Antonio (UTHCSA).

IV. Proposed Organizational Charts

The committee discussed that the organizational structure should not be hierarchical. Instead, the structure should be thought of as building blocks; varying experience types that inform the overall IPE framework:

Prep activities

Theory–table exercises, teamwork

Partner-based (UTEP; OOCE)

Co-curricular (TECHS)

Simulations – generic

Partner-based (UTEP; OOCE)

Co-curricular (TECHS)

Simulations – specialized

A common IPE experience should be built on top of this foundation. It should be clarified and made institutionally deliberate. The suggestion that the top of the pyramid should say “mission-based common IPE experience.”

The OIPE director can garner support by ensuring many IPE activities are program-based. The IPE activities could be “sponsored” by each school. Dr. Brower will make updates to the org pyramid accordingly.

The OIRE team should have one representative on councils who act as executive support and non-voting members, per SACSCOC.

Development council should be changed to “Scholarship.”

The curriculum councils (and all councils) should be kept to a small and true working group. The Vice President for Academic Affairs should have oversight of OIPE along with the senior director of OIPE. The Assistant Vice President of Academic Affairs should have dotted line reporting for the duration of the OIPE being the QEP topic. This oversight structure would ensure that the OIPE is equitable across all schools. The director of OIPE is the intermediary between Vice President and the councils.

Student Council will have independent input. Other councils will report informally to the curriculum committee. The dotted line reporting to the Vice President is to oversee the function of OIPE and not as a formal reporting structure.

Dr. Herber-Valdez prefers an organizational chart in which the OIPE senior director is positioned higher. This serves to clarify roles and reporting structure.

VII. Adjourn

The meeting adjourned at 5:00 p.m. The focus of the next meeting will be on the organizational structure and the student learning outcomes. The QEP proposal will also be presented at the next meeting. Otherwise, let the committee know it is being worked on and feedback over email will be requested.

QEP/IPE Steering Committee
UT Health San Antonio QEP/IPE Presentation Debrief
August 20, 2022
12:00 P.M. – 1:00 P.M.
MEB 3200A - Old President's Conference Room
Minutes

Attendees Present:

Richard Brower, M.D.	Jan Kronmiller, D.D.S.
Christiane Herber-Valdez, Ed.D.	Rajkumar Lakshmanaswamy, Ph.D. Oliana
Alikaj-Fierro, Ph.D.	Elena Miranda, M.Ed.
Julie Blow, Ph.D.	Obaro, Okopie
Lisa Beinhoff, Ph.D.	Rosie Sanchez
Scott Crawford, M.D.	Manuel Santa-Cruz, D.N.P.
Maureen Francis, M.D.	

I. Welcome

Dr. Herber-Valdez welcomed everyone.

II. Review LINC Framework

Dr. Alikaj-Fierro stated that the UT Health San Antonio Campus has a disseminating framework where there is a strong LINC office. The Curriculum is broken up into two distant components. The LINC office is an overall program for promoting and integrating scholarship IPE. The assessment occurs at the school level and institutional. Their three main goals for QEP are to increase IPE, integrate IPE, and measure IPE.

III. Strength & Weakness

Faculty stated:

- Well-structured and the project is feasible
- Flexibility and freedom for each school to design their own IE activity and it makes it more manageable and feasible.
- There is no clinical affairs council or equivalent to help push them to authentic simulation and authentic real clinical environment/ coordination.

Dr. Brower stated that the goal was to have an integrated clinical experience.
Some creative options would be: 1) Emergency Room 2) Potential Dental screening clinic.

IV. Discussion

Dr. Herber-Valdez would like the committee to send her an email providing feedback on the five initiatives. OIRE office will be working on drafting a proposal on or before next meeting of October 21, 2022.

V. Adjourn

Meeting adjourned at 1:10pm

QEP/IPE Steering Committee Meeting Minutes
Friday, October 21, 2022
4:00 P.M. – 5:00 P.M.
MSB2 5C22, President’s Conference Room

Richard Brower, M.D.
Christiane Herber-Valdez, Ed.D.
Alikaj-Fierro, Ph.D.
Alarcon, Hilda
Julie Blow, Ph.D.
Lisa Beinhoff, Ph.D.

Manuel Delarosa, M.D.
Maureen Francis, M.D.
Rajkumar Lakshmanaswamy, Ph.D.
Elena Miranda, M.Ed
Dorothy Stewart

Agenda Items:

I. Call to Order

Dr. Brower called the meeting to order at 4:00 p.m. and announced that Jan Kronmiller, D.D.S., Ph.D. has left the institution and WLHSDM will need to designate a representative to replace Dr. Kronmiller. Dr. Alikaj-Fierro will reach out to the dental school to coordinate a replacement.

II. Review of Meeting Minutes

Dr. Herber-Valdez reviewed and requested approval of prior meeting minutes. The prior meeting minutes were approved.

III. IPE Organizational Structure

Dr. Brower reviewed the OIPE proposed structure.

IV. Curriculum Sub-committee Update

Dr. Francis provided the committee with an update on Student Learning Outcomes (SLOs).

V. QEP Proposal

Dr. Alikaj-Fierro provided the committee with a QEP proposal overview consisting of the following:

- Process Used to Develop the QEP
- Identification of the topic
- Desired Student Learning Outcomes (SLOs)
- Assessment of SLOs
- Actions to be implemented
- Proposed timeline
- Organizational structure

VI. Open Discussion

Dr. Herber-Valdez proposed that the QEP proposal should be sent to the committee prior to the meeting; even if time permits for a presentation, it should still be sent to them for review and feedback. At the next meeting, the committee can discuss it in more detail.

QEP/IPE Steering Committee Meeting Minutes
January 23, 2023
4:00 P.M. – 5:00 P.M.
MSB2 5C22, President’s Conference Room

Richard Brower, M.D.	Jessica Fisher, C.P.A., M.Acc
Christiane Herber-Valdez, Ed.D.	Armando Meza, M.D.
Oliana Alikaj-Fierro, Ph.D., M.B.A.	Okopie Obaro
Alarcon, Hilda	Rosie Sanchez
Julie Blow, Ph.D.	Dorothy Stewart

Dr. Alikaj-Fierro requested that the committee should be oriented to specific areas of the proposal that the committee can assist with. The QEP proposal will be submitted along with Focus Report in March 2023.

Agenda Items:

I. Call to Order

Dr. Brower called the meeting to order at 4:00 p.m.

II. Review of Meeting Minutes

Dr. Herber-Valdez reviewed and requested approval of the August 20, 2022 meeting minutes. The prior meeting minutes were approved.

III. IPE Organizational Structure

Dr. Brower discussed the OIPE Director second interview process. The top candidates qualifications were discussed.

IV. IPE SLOs

Voting has commenced for SLOs and will close tomorrow. After the SLOs are formally approved, they will be adopted and into the proposal.

V. QEP Proposal

OIRE will research other proposals to get an idea of what needs to be submitted to SACSCOC.

Dr. Herber-Valdez will reach out to the SACSCOC Vice President to ask about page limits and other proposal specifications. The Focus Report has a page limit, but not sure about the QEP proposal.

VI. Open Discussion

Discussion of incorporating FGSBS into the IPE proposal. The committee also discuss how UT Health Center – San Antonio (UTHCSA) was incorporating their Graduate School of Biomedical Sciences (GSBS) into their IPE.

VII. Adjourn

The meeting adjourned at 5:00 p.m.

From: [Herber-Valdez, Christiane](#)
To: [Alikaj-Fierro, Oliana](#); [Brower, Richard](#); [Dankovich, Robin](#); [Delarosa, Jmanuel](#); [Crawford, Scott](#); [Tawney, Andrea](#); [Aung, Koko](#); [Fisher, Jessica](#); [Sanchez, Rosie](#); [Beinhoff, Lisa](#); [Ellis, Linda S](#); [Meza, Armando](#); [Santa-Cruz, Manuel](#); [Lakshmanaswamy, Rajkumar](#); [Didia, Sclaudia](#); [Blow, Julie](#); [Francis, Maureen](#); [Kronmiller, Jan](#); [Lloyd, Emily](#); [Nicasio, Jacob](#); [Okopie, Obaro](#); [Lewis, Matthew](#)
Cc: [Alarcon, Hilda](#); [Stewart, Dorothy](#)
Subject: QEP/IPE Committee Action Requested: Vote on Core SLOs by Oct 28
Date: Tuesday, October 25, 2022 12:52:52 PM
Attachments: [IPE QEP Updates 10-21-2022 \(002\).pptx](#)
Importance: High

Dear QEP/IPE Committee Members,

We ask that you please take a moment to review and vote on the proposed institutional-level **IPE Core Curriculum Student Learning Outcomes (SLOs)** – as recommended by the IPE Outcomes Sub-Committee and presented by Dr. Francis during our meeting on Oct. 21 (PPT attached; highlights listed below).

A big THANKS to this sub-committee for their work!

Please cast your vote using the voting button no later than Friday, October 28. You will find the voting button at the top of this email message (see Outlook message banner, “message” tab)

Highlights of Dr. Francis’ presentation and ensuing discussion:

- Proposed Core Curriculum SLOs are directly adopted from [Interprofessional Education Collaborative \(IPEC\)](#) Core Competencies
- Research-based; widely disseminated and supported throughout the health professions
- Align with professional school accreditation requirements
- Build on **4 core competency domains**, *which we propose to adopt as institutional QEP/IPE Core Curriculum Student Learning Outcomes (SLOs)*:
 1. Work with individuals of other professions to maintain a climate of mutual respect and shared values. **(Values/Ethics for Interprofessional Practice)**
 2. Use the knowledge of one’s own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations. **(Roles/Responsibilities)**
 3. Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease. **(Interprofessional Communication)**
 4. Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population[1]centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable. **(Teams and Teamwork)**
- Comprehensive list of sub-competencies provides choices for school-level IPE SLOs (see

attached PPT slides 6-9)

- IPEC provides numerous IPE resources and tools.

For more information, see the attached PPT and embedded links. Feel free to reach out with any questions.

Thank you in advance for your time and vote!

- Christiane

Christiane Herber-Valdez, M.A., Ed.D.

Assistant Vice President for Academic Affairs | Office of Academic Affairs Assistant

Professor | Department of Medical Education

Texas Tech University Health Sciences Center El Paso

5001 El Paso Drive

El Paso, TX 79905

Medical Center of the Americas Building, Room 254 Tel.

915.215.4796

QEP/IPE Committee Action Requested: Vote on Core SLOs			
<u>Committee</u>	VOTE		
Alikaj-Fierro, Oliana	APPROVE		
Beinhoff, Lisa	APPROVE		
Blow, Julie	APPROVE		
Brower, Richard	APPROVE		
Crawford, Scott	APPROVE		
Dankovich, Robin	APPROVE		
Delarosa, J.Manuel	APPROVE		
Fisher, Jessica	APPROVE		
Herber-Valdez, Christiane	APPROVE		
Lewis, Matthew	APPROVE		
Meza, Armando	APPROVE		
Okopie, Obaro	APPROVE		
Santa-Cruz, Manuel	APPROVE		

Appendix D

Mission Statement

The mission of Texas Tech University Health Sciences Center at El Paso is to improve the lives of people in our State and our community by focusing on the unique healthcare needs of socially and culturally diverse border populations through excellence in integrated education, research, and patient care.

GOAL 1: EXCELLENCE IN ACADEMICS

Objective 1.1 Enhance student recruitment and improve student success.

Strategy 1.1.1: GSBS - Increase the number of students admitted and enrolled in the masters, post-baccalaureate and the Summer Accelerated Biomedical Research internship pipeline program.

Metric: # of applications received Metric: of students admitted
Metric: # of students matriculating (incoming class)

Target(s): Increase enrollment by 5% each academic year. (See school-based enrollment plan)

Strategy 1.1.2: GGHSOM – Increase the number of students admitted and enrolled in the BSN and MSN programs.

Metric: # of applications received Metric: # of students admitted
Metric: # of students matriculating (incoming class)

Target(s): Increase number of incoming students from 160 to 340 by academic year (AY) 2025. (See School-based enrollment plan)

Strategy 1.1.3: PLFSOM - Increase the number of students admitted and enrolled in the MD program.

Metric: # of applications received
Metric: # of students admitted

Appendix E

Student Perceptions of Interprofessional Clinical Education – Revised (SPICE-R)

	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
Working with students from another health profession enhances my education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My role within an interprofessional healthcare team is clearly defined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health outcomes are improved when patients are treated by a team that consists of individuals from two or more health professions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patient satisfaction is improved when patients are treated by a team that consists of individuals from two or more health professions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in educational experiences with students from another health profession enhances my future ability to work on an interprofessional team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All health professional students should be educated to establish collaborative relationships with members of other health professions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand the role of other health professionals within an interprofessional team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical rotations are the ideal place within their respective curricula for health professional students to interact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health professionals should collaborate on interprofessional teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During their education, health professional students should be involved in teamwork with students from other health professions in order to understand their respective roles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Teamwork Attitudes Questionnaire (T-TAQ)

Instructions: Please respond to the questions below by placing a check mark (✓) in the box that corresponds to your level of agreement from *Strongly Agree* to *Strongly Disagree*. Please select only one response for each question.

Team Structure	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is important to ask patients and their families for feedback regarding patient care.					
2. Patients are a critical component of the care team.					
3. This facility's administration influences the success of direct care teams.					
4. A team's mission is of greater value than the goals of individual team members.					
5. Effective team members can anticipate the needs of other team members.					
6. High performing teams in health care share common characteristics with high performing teams in other industries.					
Leadership	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7. It is important for leaders to share information with team members.					
8. Leaders should create informal opportunities for team members to share information.					
9. Effective leaders view honest mistakes as meaningful learning opportunities.					
10. It is a leader's responsibility to model appropriate team behavior.					
11. It is important for leaders to take time to discuss with their team members plans for each patient.					
12. Team leaders should ensure that team members help each other out when necessary.					
Situation Monitoring	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
13. Individuals can be taught how to scan the environment for important situational cues.					
14. Monitoring patients provides an important contribution to effective team performance.					

15. Even individuals who are not part of the direct care team should be encouraged to scan for and report changes in patient status.					
16. It is important to monitor the emotional and physical status of other team members.					
17. It is appropriate for one team member to offer assistance to another who may be too tired or stressed to perform a task.					
18. Team members who monitor their emotional and physical status on the job are more effective.					
Mutual Support	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19. To be effective, team members should understand the work of their fellow team members.					
20. Asking for assistance from a team member is a sign that an individual does not know how to do his/her job effectively.					
21. Providing assistance to team members is a sign that an individual does not have enough work to do.					
22. Offering to help a fellow team member with his/her individual work tasks is an effective tool for improving team performance.					
23. It is appropriate to continue to assert a patient safety concern until you are certain that it has been heard.					
24. Personal conflicts between team members do not affect patient safety.					
Communication	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25. Teams that do not communicate effectively significantly increase their risk of committing errors.					
26. Poor communication is the most common cause of reported errors.					
27. Adverse events may be reduced by maintaining an information exchange with patients and their families.					
28. I prefer to work with team members who ask questions about information I provide.					
29. It is important to have a standardized method for sharing information when handing off patients.					
30. It is nearly impossible to train individuals how to be better communicators.					

Please provide any additional comments in the space below.

The Interprofessional Collaborative Competency Attainment Scale (Revised)

Using the following scale, please rate your ability for each of the following statements:

1 = "Poor"; 2 = "Fair"; 3 = "Good"; 4 = "Very good"; 5 = "Excellent"

	Before participating in the learning activities, I was able to:					After participating in the learning activities, I was able to:				
	P	F	G	VG	E	P	F	G	VG	E
1. Promote effective communication among members of an interprofessional (IP) team	1	2	3	4	5	1	2	3	4	5
2. Actively listen to IP team members' ideas and concerns	1	2	3	4	5	1	2	3	4	5
3. Express my ideas and concerns without being judgmental	1	2	3	4	5	1	2	3	4	5
4. Provide constructive feedback to IP team members	1	2	3	4	5	1	2	3	4	5
5. Express my ideas and concerns in a clear, concise manner	1	2	3	4	5	1	2	3	4	5
6. Seek out IP team members to address issues	1	2	3	4	5	1	2	3	4	5
7. Work effectively with IP team members to enhance care	1	2	3	4	5	1	2	3	4	5
8. Learn with, from and about IP team members to enhance care	1	2	3	4	5	1	2	3	4	5
9. Identify and describe my abilities and contributions to the IP team	1	2	3	4	5	1	2	3	4	5
10. Be accountable for my contributions to the IP team	1	2	3	4	5	1	2	3	4	5
11. Understand the abilities and contributions of IP team members	1	2	3	4	5	1	2	3	4	5
12. Recognize how others' skills and knowledge complement and overlap with my own	1	2	3	4	5	1	2	3	4	5
13. Use an IP team approach with the patient to assess the health situation	1	2	3	4	5	1	2	3	4	5
14. Use an IP team approach with the patient to provide whole person care	1	2	3	4	5	1	2	3	4	5
15. Include the patient/family in decision-making	1	2	3	4	5	1	2	3	4	5
16. Actively listen to the perspectives of IP team members	1	2	3	4	5	1	2	3	4	5
17. Take into account the ideas of IP team members	1	2	3	4	5	1	2	3	4	5
18. Address team conflict in a respectful manner	1	2	3	4	5	1	2	3	4	5
19. Develop an effective care plan with IP team members	1	2	3	4	5	1	2	3	4	5
20. Negotiate responsibilities within overlapping scopes of practice	1	2	3	4	5	1	2	3	4	5

21. Compared to the time before the learning activities, would you say your ability to collaborate interprofessionally is... (circle one) 1 = Much better now; 2 = Somewhat better now; 3 = About the same; 4 = Somewhat worse now; 5 = Much worse now

The ICCAS was developed by: MacDonald, C., Archibald, D., Trumpower, D., Casimiro, L., Cragg, B., & Jelly, W. (2010). Designing and operationalizing a toolkit of bilingual interprofessional education assessment instruments. *Journal of Research in Interprofessional Practice and Education*, 1(3). Revised item scales and the addition of item #21 were made during a replication validation study by Schmitz, C.C., Radosevich, D.M., Jardine, P.J., MacDonald, C.J., Trumpower, D. & 7, *Journal of Interprofessional Care*).

Interprofessional Care Core Competencies Global Rating Scale (IPC-GRS)

Item	Strongly Disagree (1)	Disagree (2)	Undecided (3)	Agree (4)	Strongly Agree (5)
I feel confident to clearly and thoroughly describe my own role, responsibilities, values and scope of practice to other professionals					
I feel confident to thoroughly and accurately identify instances where interprofessional care will improve client, patient and/or family outcomes					
I feel confident to comprehensively contribute to effective decision-making in interprofessional teamwork utilizing judgment and critical thinking					
I feel confident to comprehensively contribute to team effectiveness through reflection on interprofessional team function					
I feel confident to comprehensively contribute to the establishment and maintenance of effective interprofessional working relationships					
I feel confident to contribute accurately and effectively to effective interprofessional communication by addressing conflict or difference of opinions					
I feel confident to recognize and understand clearly and thoroughly how others' own uniqueness, including power and hierarchy, may contribute					
I understand how my own uniqueness may contribute to effective communication and/or interprofessional tension					
I feel confident to contribute accurately and effectively to effective interprofessional communication by giving and receiving feedback					
I feel confident to clearly reflect on my own values (personal and professional) and to demonstrate respect for the values of other interprofessional team members					

IPE Teamwork Simulation Session

OR Scenario Observer Documentation Form

- Please rate the following on a scale of 1 to 5 (1 being the lowest and 5 being the highest)
 - Team members communicated effectively
1 2 3 4 5
 - Team leadership was effective in helping the team reach their goal
1 2 3 4 5
 - Did the team use effective decision-making processes and problem-solving skills?
1 2 3 4 5
 - The team resolved conflict (if any arose) effectively to preserve patient safety
N/A 1 2 3 4 5
 - The TeamSTEPPS tools highlighted in this scenario are listed below. Please circle the tools that you saw the team use during the scenario:
 - **OR Scenario** – Two challenge rule, CUS words, DESC
 - How were the tools used?

- How do you think the scenario went overall?

- Did a leader or leaders emerge?

- What would you say were areas of strength in the team's performance?

- What are potential areas for improvement in team performance?

Presentation Evaluation Form

Student Name _____

Title of the presentation: _____

Note - Please do not use this form to criticize the student's topic selection.

Evaluate the student's presentation employing the following criteria and return the sheet to the GSBS office.

	Poor 1	2	Average 3	4	Excellent 5
Knowledge and Content					
Was the research topic clearly stated?					
Were context and importance of research topic demonstrated?					
Was the student able to answer questions from the audience in a satisfactory manner?					
Presentation Skills					
Were graphics used to advantage?					
Was the presentation free from spelling and/or grammatical errors?					
Did the student engage the audience (eye contact; not reading slides)?					
Was the presentation audible and understandable in terms of speech?					
Seminar was within 15-minute time constraint and not too short?					
Total points					

Additional comments

Range-scored criteria (best is on right)					
	Poor 1	2	Average 3	4	Outstanding 5
Knowledge and Content					
Organization of presentation	Cannot understand; no sequence of information	Hard to follow; sequence of information jumpy	Most of information presented in sequence	Information presented in logical sequence; easy to follow	Information presented as interesting story in logical, easy to follow sequence
Background content	Material not clearly related to topic OR background dominated seminar				Material sufficient for understanding hypothesis/rationale for experiments
Methods* (see below)	Methods not listed				Methods listed; should emphasize which methods student performed.
Results (figures, graphs, tables, etc.)	All hard to read	Some figures hard to read	Majority of figures clear	Most figures clear	All figures clear
	Majority in inappropriate format	Some in inappropriate format	Majority appropriately formatted	Most appropriately formatted	All appropriately formatted
	Poorly explained	Some explanations lacking	Reasonably explained	Well explained	Exceptionally explained
Contribution of work	Significance not mentioned	Significance hinted	Significance mentioned	Significance explained	Significance exceptionally well explained
Knowledge of subject*(includes methods performed by student)	Does not have grasp of information; unable to answer questions	Uncomfortable with information; answered only rudimentary questions	At ease with information; answered most questions	At ease; answered all questions but failed to elaborate	Demonstrated full knowledge; answered all questions with elaboration
Presentation Skills					
Graphics (use of Powerpoint)	Uses superfluous graphics or no graphics	Uses graphics that rarely support text	Uses graphics that relate to text and presentation	Uses graphics that explain text and presentation	Uses graphics that explain and reinforce text and presentation

		and presentation			
Mechanics	Presentation has 15 or more spelling errors and/or grammatical errors	Presentation has no more than 10 misspellings and/or grammatical errors	Presentation has no more than 5 misspellings and/or grammatical errors	Presentation has no more than 2 misspellings and/or grammatical errors	Presentation has no misspellings or grammatical errors
Eye Contact	Reads all slides with back to audience; no eye contact	Reads most slides; occasional eye contact	Refers to slides to make points; occasional eye contact	Refers to slides to make points; eye contact majority of time	Refers to slides to make points; engaged with audience
Elocution - not ability to speak English language	Mumbles; incorrectly pronounces many terms	Incorrectly pronounces some terms	Incorrectly pronounces some terms	Incorrectly pronounces few terms	Correct, precise pronunciation of all terms
	Speaks too quietly to be heard	Voice is low; difficult to hear	Voice fluctuates from low to clear; difficult to hear at times	Voice is clear with few fluctuations; audience can hear well most of the time	Voice is clear and steady; audience can hear well at all times
Length and Pace			Short <7 min OR long >10		Appropriate (15min)
	Extremely rushed OR dragging throughout	Rushed OR dragging throughout	Rushed OR dragging in parts	Most of the seminar well-paced	Well-paced throughout