

Background

UT Health San Antonio's Strategic Plan for fiscal years 2023-2027 continues to emphasize Teamwork & Collaboration as a core value. The Quality Enhancement Plan (QEP), Linking Interprofessional Networks for Collaboration (LINC), is an institution-wide effort to advance our Strategic Plan by enhancing interprofessional education (IPE) at UT Health San Antonio. Key measures of success include increasing student knowledge and skills related to IPE, demonstrating schools' and programs' adoption of IPE as a strategic priority through increased activities integrated into programs' curricula and increasing opportunities for student IPE experiences across the institution. To contribute to the coordinated implementation of the QEP and to demonstrate compliance with program-specific IPE accreditation standards, the Associate Dean for Academic and Student Affairs within the School of Health Profession (SHP) and the Chair of the SHP IPE Committee are leading the development and implementation of program-specific IPE plans through the contributions and efforts of SHP IPE Committee members and program leaders within each SHP department.

Profession-Specific Accreditation Mandate

The National Accrediting Agency for Clinical Laboratory Sciences Programs suggests the integration of IPE into the Medical Laboratory Science curriculum, as evidenced by the following standards/expectations:

National Accrediting Agency for Clinical Laboratory Sciences Programs: <http://www.nacls.org/>

- See Program Directors page for accreditation resources: <http://www.nacls.org/Program-Directors.aspx>
 - [2012 standards](#) (updated 11/2020). "NACLS Standards for Accredited and Approved programs." Adopted 2012, Revised through 11/2020. Includes MLS, DCLS, and other programs under NACLS.
 - "Principles of interpersonal and interdisciplinary communication and team-building skills" mentioned throughout, including pp 57, 61, 73, 80 of pdf document. These pages are specific to programs other than MLS or DCLS.

Medical Laboratory Science IPE PLAN

In accordance with HPAC recommendations, this IPE plan consists of four components: rationale, outcome-based goals, deliberate design, and assessment & evaluation. Details for each component are included below:

Rationale

Medical Laboratory Sciences (MLS) is known as the "hidden profession" and does not interact directly with patients. However, medical laboratory scientists are responsible for resulting out diagnostic tests of which physicians base over 70% of their clinical decisions. Alignment with campus partners through the University's QEP provides a framework by which the MLS can interact with other healthcare professions, including clinicians, physicians, nurse practitioners, physical and occupational therapists, speech-language pathologists, and respiratory therapists who treat patients. These patients often have comorbidities diagnosed by lab results which were produced by medical laboratory scientists. Interprofessional education allows all professionals to learn from each other and it reduces professional hierarchy while helping to promote equality and respect. MLS

helping other medical health professionals to understand the processes involved once a laboratory requisition has been initiated. The laboratory role begins with the preanalytical component (everything involving correct specimen collection), through the analytical component (actual testing of the specimen) ending with the post-analytical component of reporting a result. This aids in explaining and clarifying the role, expertise and responsibilities that each profession contributes to the total care of the patient. Through these IPE activities we not only enhance the student's education but address and correct the inefficiencies and ineffectiveness of a disjointed healthcare team that does not communicate, and which can negatively impact the health of the patient. Through various IPE activities our profession strives to improve both the laboratory testing process and patient safety.

Outcome-based Goals

Table 1. Division of Medical Laboratory Sciences IPE Plan – Goals Identified through Crosswalk of Interprofessional Practice-Relevant Competency Frameworks

Expected Behavior for MLS Student	Domains of Competence	IPEC sub-competencies	Division of MLS sub-competency
1. Demonstrates the ability to communicate effectively with healthcare professionals as individuals and in teams	Communicate in a responsive, responsible, respectful, and compassionate manner with team members.	C2: Use communication tools, techniques, and technologies to enhance team function, well-being, and health outcomes. C5: Practice active listening that encourages ideas and opinions of other team members.	Communicate opinions based on unique expertise with confidence, clarity and respect to the healthcare team providing patient care, including constructive feedback to team members to enhance patient care and outcomes.
2. Comprehend the significance of effective teamwork in achieving shared goals and to work collaboratively to accomplish tasks efficiently within the medical profession.	Apply values and principles of team science to adapt one's own role in a variety of team settings	C7: Examine one's position, power, role, unique experience, expertise, and culture towards improving communication and managing conflicts. TT2: Appreciate team members' diverse experiences, expertise, cultures, positions, power, and roles towards improving team function. TT5: Apply interprofessional conflict management methods, including identifying conflict causes and addressing divergent perspectives.	Demonstrate a genuine appreciation for the diverse cultural backgrounds and perspectives of team members, recognizing the value of cultural diversity in enriching problem-solving, decision-making, and creativity within the team.

Deliberate Design

Table 2. IPE Activities within the B.S. & M.S. Medical Laboratory Sciences IPE Plan

Program Year & Semester	Name of IPE Activity (Type of IPE Activity)	Learners from Other Programs Involved (Abbreviation & Year)	Associated Course/Place in Curriculum (If Applicable)	Faculty Leader(s) from Program	Faculty Leader(s) from Other Programs	Timeframe to be Completed (Month)
Year 1 Fall	LINC Common IPE Experience (IPE Type: Curricular IPE Sub-type: Classroom-Collaborative Online Learning)	Learners from all programs at UT Health San Antonio are placed in interprofessional groups of 3-4 and group composition varies as a result.	Program Requirement		LINC Didactic IPE Initiative Members: Moshtagh Farokhi (SOD), Bobby Belarmino (SHP-PT), Aesha Aboueisha (LSOM), Daniel Saenz (GSBS), and Cynthia L. Wall (SON), with support from the LINC Faculty Council Members: Cathy Torrington Eaton (SHP), Rekha Kar (GSBS), Temple Ratcliffe (LSOM), Representative TBD (SON), and Joseph Zorek (LINC Executive Director)	Fall (Sept to Oct)
Year 1 Spring	LINC Simulation IPE Experience (IPE Type: Curricular IPE Sub-type: Blended – Classroom- Collaborative Online Learning & Simulation)	Learners from all programs at UT Health San Antonio are placed in interprofessional groups of 3-4, and group composition varies as a result.	Program Requirement		LINC Simulation IPE Initiative Members: Sadie Trammell Velasquez (LSOM), James Cleveland (SON), Diane Ferguson (LSOM), Rebecca Moote (LSOM), David Ojeda Diaz (SOD), Representative starting September 1 (SHP), and Kathryn Parke (SON) with support from the LINC Faculty Council Members: Moshtagh Farokhi (SOD), Rekha Kar (GSBS), Cathy Torrington Eaton (SHP), Temple Ratcliffe (LSOM), Representative TBD (SON), and Joseph Zorek (LINC Executive Director)	Spring (Jan to Mar)
Year 2 Fall	A Patient-Centered Approach for Reducing Preanalytical Errors Between Medical Laboratory Sciences and Medical Students (IPE Type: Curricular IPE Sub-type: Classroom)	MLS Year 2 MD Year 1	MLSC 6002	Cordelia Kudika Terri Murphy- Sanchez	JD Canty (LSOM) & Michael Berton (LSOM)	Fall (Nov)
Year 2 Fall	Student Grand Rounds (IPE Type: Co-Curricular IPE Sub-type: Classroom)	MLS Year 2		Terri Murphy- Sanchez		Fall (Nov)
Year 2 Spring	Student Grand Rounds (IPE Type: Co-Curricular IPE Sub-type: Classroom)	MLS Year 2		Terri Murphy- Sanchez		Spring (Apr)

Year 2 Spring	Professional Issues in Healthcare (IPE Type: Curricular IPE Sub-type: Classroom)	MLS Year 2 OT Year 2 PT Year 1	MLSC 4006/6008 OCCT 7019 PHYT 8122	Cordelia Kudika	Wu, Chinyu (SHP-OT) Michael Geelhoed (SHP-PT)	Spring (Mar)
Year 2 Spring	LINC Clinical IPE Experience (IPE Type: Curricular IPE Sub-type: Blended – Classroom-Collaborative Online Learning & Clinical)	Learners from all programs at UT Health San Antonio will be placed in interprofessional groups of 3-4 and group composition will vary as a result.	Program Requirement		LINC Clinical IPE Initiative Members: Temple Ratcliffe (LSOM) Rebecca Moote (LSOM), Angela Kennedy (SHP), Elena Riccio Leach (SOD) and Marta Vives (SON) with support from the LINC Faculty Council Members: Moshtagh Farokhi (SOD), Rekha Kar (GSBS), Cathy Torrington Eaton (SHP), Representative TBD (SON), and Joseph Zorek (LINC Executive Director)	Spring (Jan to Mar)

DEFINITIONS

Interprofessional Education (IPE) = Proposed by the World Health Organization and endorsed by IPEC, takes place “when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010; IPEC, 2016). This emphasis on students aligns well with UT Health San Antonio’s QEP, and the expectation is that student-to-student interprofessional learning will constitute the majority of IPE activities on campus. This table is reserved for student-to-student IPE activities.

IPE Partners = Students from other professions/programs involved including their year(s) of study

IPE Types = *Curricular*: IPE activities within formal curricula (e.g., credit-bearing courses, clerkships); *Co-Curricular*: IPE activities outside formal curricula (i.e., volunteer experiences that augment learning/professional development).

IPE Sub-types = *Classroom*: IPE activities in a classroom setting, including in-person and online; *Simulation*: IPE activities in a simulation setting, including in-person and online; *Clinical*: IPE activities in a clinical setting allowing for practical experiences involving direct patient care; *Community*: IPE activities in a community-based setting allowing for practical experiences that do not involve direct patient care; *Blended*: Any combination of IPE Sub-types.

FOOTNOTE

See Assessment & Evaluation section for more details on how learning outcomes from this IPE Plan are measured.

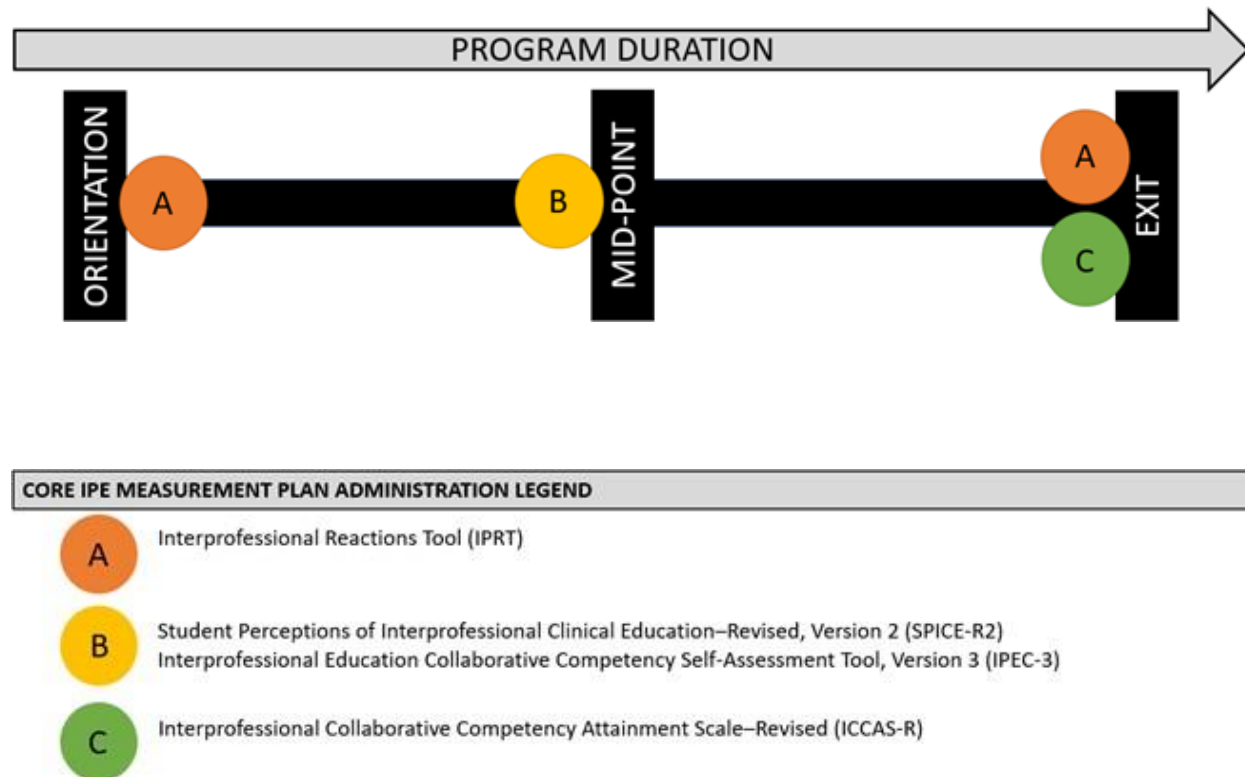
Assessment and Evaluation

The LINC Core IPE Measurement Plan at UT Health San Antonio forms the backbone of IPE assessment/evaluation for all UT Health San Antonio program-specific IPE plans. Valid and reliable tools to measure change in reactions, attitudes/perceptions, skills, and behaviors are included. Table 5 and Figure 1 below provide additional information on tools and administration schedules for the LINC Core IPE Measurement Plan.

Table 5. Tools and Targeted Learning Outcomes of the LINC Core IPE Measurement Plan

Level*	Measurement Tool**	Constructs	Items
Level 1 Reaction	Interprofessional Reactions Tool (IPRT)	• Preparation • Relevance • Importance • Satisfaction	13 self-reported items: • 9 quantitative items using a 5-point Likert-type response scale; and, • 4 qualitative items soliciting written responses to open-ended prompts
Level 2a Attitudes/ Perceptions	Student Perceptions of Interprofessional Clinical Education– Revised, Version 2 (SPICE-R2)	• Interprofessional Teamwork and Team-based Practice • Roles & Responsibilities for Collaborative Practice • Patient Outcomes from Collaborative Practice	10 self-reported, quantitative items using a 5-point Likert-type response scale
Level 2b Skills Level 3 Behaviors	Interprofessional Education Collaborative Competency Self-Assessment Tool, Version 3 (IPEC-3)	• Interprofessional Interactions • Interprofessional Values	16 self-reported, quantitative items using a 5-point Likert-type response scale
	Interprofessional Collaborative Competency Attainment Scale– Revised (ICCAS-R)	• Communication • Collaboration • Roles & Responsibilities • Collaborative patient-family centered approach • Conflict management/ resolution • Team functioning	21 self-reported, quantitative items using a 5-point Likert-type response scale
* Modified Kirkpatrick levels 2b (skills) and 3 (behaviors) are combined in this table because IPEC-3 and ICCAS-R report to measure both levels ** See Appendices I-IV for complete versions of selected measurement tools			

Figure 1. Administration Schedule of the LINC Core IPE Measurement Plan



LINC Core IPE Measure A1 (pre) is administered in August, LINC Core IPE Measure B is administered in September, and LINC Core IPE Measure A2 (post) & C are administered in April.

The MLS IPE Plan was initially approved by the SHP IPE Committee and SHP Curriculum Committee on November 12, 2020.

The initial MLS IPE Plan was then updated and approved by the MLS Division within the Department of Health Sciences on October 29, 2024.

The approved AY2024-2025 MLS IPE Plan was submitted to LINC on January 9, 2025.