Background
UT Health San Antonio’s Strategic Vision for fiscal years 2018-2022 identifies Teamwork & Collaboration as a core value, and it also highlights strengthening interprofessional team-based learning opportunities across the organization as a key strategy. The Quality Enhancement Plan (QEP), Linking Interprofessional Networks for Collaboration (LINC), is an institution-wide effort to advance our Strategic Vision 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 Accreditation Standards for Physician Assistant Education, Fifth Edition, effective September 1, 2020, established and published by the Accreditation Review Commission on Education for the Physician Assistants (ARC-PA) require the integration of IPE into the Physician Assistant Studies curriculum, as evidenced by the following standards/expectations:

Fifth Edition effective September 1, 2020
B2.04 The curriculum must include instruction in interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and other health professionals
B2.10 The curriculum must prepare students to work collaboratively in interprofessional patient centered teams. Instruction must:
   A) include content on the roles and responsibilities of various health care professionals,
   B) emphasize the team approach to patient centered care beyond the traditional physician-PA team approach, and
   C) include application of these principles in interprofessional teams

Physician Assistant Studies 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
Vision: UT Health San Antonio’s Strategic Vision identifies Teamwork & Collaboration as a core value, and it also highlights strengthening interprofessional team-based learning opportunities across the organization as a critical strategy. The Quality Enhancement Plan (QEP), Linking Interprofessional Networks for Collaboration (LINC), is an institution-wide effort to advance our Strategic Vision by enhancing interprofessional education (IPE) at UT Health San Antonio.
Framework: A successful program must align UT Health’s Vision with the QEP core values and Interprofessional Education Collaborative (IPEC) Core Competencies. To achieve this, departments must strengthen their interprofessional team-based learning by aligning student learning outcomes and instructional objectives with the IPEC Core Competencies. The competencies include 1) interprofessional communication practices, 2) teamwork and team-based practice, 3) values and ethics for interprofessional practice, and 4) roles and responsibilities for collaborative practice. Health professions must align the IPEC Core Competencies in the contents of their didactic and clinical educational methods.

Justification: Teamwork is an essential element of patient care and highlights the need for communication and collaboration with the health care team. To meet the needs and provide the best available care health for our community, health care workers need adequate knowledge, skills, and behaviors about practical approaches to provide patient-centered care while working in teams. IPE is a valuable tool to develop strategies for the implementation of evidence-based practices promoting collaboration among multiple disciplines. The evaluation of the acquisition of IPEC competencies warrants a mixed-method approach with numerous modalities of IPE activities listed above. The results of the evaluation will give further insight to students and faculty of the benefits, challenges, and gaps in training towards meeting the IPEC Core Competencies.

Outcome-based Goals
The Department of Physician Assistant Studies has embraced the IPEC model to guide educational objectives and ultimately the curriculum to produce graduates who understand the critical relationship between teamwork and collaborative, patient-centered care, and who will contribute to the achievement of the program mission and vision. We have adopted the specific IPEC sub-competencies listed below as the desired student learning outcomes for IPE. Upon completion of the PA department’s IPE plan learners will be able to:

Competency 1: Values/Ethics for Interprofessional Practice - Establish and maintain a collaborative climate of integrity and mutual respect grounded on personal values and professional ethical principles focused on the delivery of health care.

• Measured through observation of interactions during group activities and peer evaluations (Behavior)
  o VE1: Place interests of patients and populations at center of interprofessional health care delivery and population health programs and policies, with the goal of promoting health and health equity across the life span.
  o VE5: Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.
  o VE6: Develop a trusting relationship with patients, families, and other team members.

Competency 2: Roles and Responsibilities for Collaborative Practice - Validate their own role and appreciate the unique knowledge, skills, and attitudes of other health care professionals as part of the health care team.

• Measured through role-playing scenarios and case studies (Learning)
  o RR5: Use the full scope of knowledge, skills, and abilities of professionals from health and other fields to provide care that is safe, timely, efficient, effective, and equitable.
  o RR9. Use unique and complementary abilities of all members of the team to optimize health and patient care.
  o RR10: Describe how professionals in health and other fields can collaborate and integrate clinical care and public health interventions to optimize population health.
Competency 3: Interprofessional Communication Practice - Demonstrate effective interpersonal and communication skills in a mindful and respectful manner to provide information and promote collaboration with members of the health care team.

- Measured through observation of interactions during group activities, peer evaluations, and simulation activities (Behavior)
  - CC1: Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function.
  - CC2: Communicate information with patients, families, community members, and health team members in a form that is understandable, avoiding discipline-specific terminology when possible.
  - CC6: Use respectful language appropriate for a given difficult situation, crucial conversation, or conflict.
  - CC7. Recognize how one’s uniqueness (experience level, expertise, culture, power, and hierarchy within the health team) contributes to effective communication, conflict resolution, and positive interprofessional working relationships (University of Toronto, 2008).

Competency 4: Interprofessional Teamwork and Team-based practice - Work collaboratively as a contributing member of an interprofessional health care team to deliver quality and equitable care that is respectful and responsive to individual needs across a broad range of cultural backgrounds.

- Measured by the ability of the group to meet identified objectives or goals (Results)
- Measured by patient satisfaction, standardized patient feedback, community health outcomes (Results)
- Measured through observation of interactions during group activities and peer evaluations (Behavior)
  - TT2. Develop consensus on the ethical principles to guide all aspects of teamwork.
  - TT3: Engage health and other professionals in shared patient-centered and population-focused problem-solving.
  - TT4: Integrate the knowledge and experience of health and other professions to inform health and care decisions, while respecting patient and community values and priorities/preferences for care.
  - TT6: Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members.
  - TT8. Reflect on individual and team performance for individual, as well as team, performance improvement.
  - TT11. Perform effectively on teams and in different team roles in a variety of settings.

The learning outcomes go beyond demonstrating knowledge and understanding of IPEC Competencies, value of IPE and collaborative practice, importance of responsive communication, and understanding the roles of various health professions involved in patient-centered care teams. This program acknowledges that achieving the desired objective must be accomplished within the restrictions of existing academic requirements. The approach is not focused on quantity but rather, how high quality, effective learning experiences can be integrated into the existing program curriculum structure.
Assessment of the student’s learning effectiveness will be measured using Kirkpatrick’s Four Levels of Training Evaluation (Reaction, Learning, Behavior, and Results) and used to connect the training to student learning outcomes and program goals (outlined above). Overall evaluation of the student’s gained knowledge and understanding of IPE principles will be measured through a pre and post activity test (Learning). The student’s perception of the value gained through the training/program activity will be measured by a pre and post activity survey. Assessment of the student’s application and use of the learned knowledge and skills is continually measured in their day-today performance during clinical rotations through onsite evaluations by the clinical coordinator, 360 evaluations from health professionals they work with, and evaluations from their assigned preceptor. This is additionally demonstrated by their ability to meet EPAs and Milestones as the student progresses through the program (Behavior).
## Deliberate Design

### Table 1. IPE Activities within the Master of Physician Assistant Studies IPE Plan

<table>
<thead>
<tr>
<th>Program Year &amp; Semester</th>
<th>Name of IPE Activity (Type of IPE Activity)</th>
<th>Learners from Other Programs Involved (Abbreviation &amp; Year)</th>
<th>Associated Course/Place in Curriculum (If Applicable)</th>
<th>Faculty Leader(s) from Program</th>
<th>Faculty Leader(s) from Other Programs</th>
<th>Timeframe to be Completed (Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 Fall</td>
<td><strong>LINC Common IPE Experience</strong> <em>(Didactic IPE – Collaborative Online Learning)</em></td>
<td>Learners from all programs at UT Health San Antonio are placed in interprofessional groups of 4 and group composition varies as a result.</td>
<td>INTD 5031</td>
<td>Meredith Quinene</td>
<td>LINC Didactic IPE Initiative Members: Bobby Belarmino (SHP-PT), Noorpreet Kaur (SOD), Daniel Saenz (GSBS), Sadie Trammell Velasquez (LSOM) and Cynthia L. Wall (SON), with support from the LINC Faculty Council Members: Moshtagh Farokhi (SOD), Rekha Kar (GSBS), Temple Ratcliffe (LSOM), Kathleen Stevens (SON), and Joseph Zorek (LINC Director)</td>
<td>Fall (Sept to Oct)</td>
</tr>
<tr>
<td>Year 1 Fall &amp; Spring</td>
<td><strong>SHP Faculty Grand Rounds</strong> <em>(Co-Curricular IPE)</em></td>
<td>MLS, SLP, OT, PT, RC Year 1</td>
<td>Quarterly</td>
<td>David Henzi (SHP)</td>
<td></td>
<td>Fall &amp; Spring (Sept / Nov / Feb / Apr)</td>
</tr>
<tr>
<td>Year 1 Fall &amp; Spring</td>
<td><strong>SHP Student Grand Rounds</strong> <em>(Co-Curricular IPE)</em></td>
<td>MLS, SLP, OT, PT, RC Year 1</td>
<td>Quarterly</td>
<td>David Henzi (SHP)</td>
<td></td>
<td>Fall &amp; Spring (Sept / Nov / Feb / Apr)</td>
</tr>
<tr>
<td>Year 1 Fall / Spring / Summer</td>
<td><strong>Clinical Skills</strong> <em>(Didactic IPE -- Simulation)</em></td>
<td>BSN Year 2</td>
<td>PHAS 6131, PHAS 6137, PHAS 6132</td>
<td>Leticia Bland</td>
<td>Lark Ford (SON-BSN)</td>
<td>Fall (Aug – Dec) Spring (Jan – May) Summer (May – Aug)</td>
</tr>
<tr>
<td>Year 1 Spring</td>
<td><strong>Veteran Health</strong> <em>(Didactic IPE)</em></td>
<td>DNP Year 1</td>
<td>PHAS 5201</td>
<td>Leticia Bland</td>
<td>Maria Danet Lapiz Bluhm (SON-BSN)</td>
<td>Spring (Jan – May)</td>
</tr>
<tr>
<td>Year 1 Spring</td>
<td><strong>Poverty Simulation</strong> <em>(Didactic IPE -- Simulation)</em></td>
<td>DDS Year 1, RC Year 2</td>
<td>PHAS 5201</td>
<td>Leticia Bland</td>
<td>Magda A. de la Torre (SOD), Thomas J. Stokes Jr (SHP-RC)</td>
<td>Spring (Jan – May)</td>
</tr>
<tr>
<td>Year 1</td>
<td><strong>Student-led Faculty Collaborative Clinics</strong> <em>(Co-Curricular IPE)</em></td>
<td>MD, BSN, PharmD</td>
<td>Leticia Bland</td>
<td>Ruth Berggren (LSOM)</td>
<td></td>
<td>Spring (Jan – May)</td>
</tr>
<tr>
<td>Year 1</td>
<td><strong>Interprofessional Training with Family Nurse Practitioner (FNP) and Physician Assistant (PA) students using Interprofessional Education (IPE) Objective Structured Clinical Examinations (OSCEs)</strong> <em>(Didactic IPE -- Simulation)</em></td>
<td>DNP Year 2</td>
<td>PHAS 5201, PHAS 5301</td>
<td>Leticia Bland, Steven Skaggs</td>
<td>Sarah Knoekel (SON-DNP), Paula Christianson-Silva (SON-DNP)</td>
<td>Spring (Jan – May)</td>
</tr>
</tbody>
</table>

---

5
<table>
<thead>
<tr>
<th>Year 1</th>
<th>Managing Dental &amp; Oral Pain (Didactic IPE – Simulation)</th>
<th>Dental Residents</th>
<th>PHAS 6132</th>
<th>PHAS 6131</th>
<th>Leticia Bland</th>
<th>Jeffery L. Hicks (SOD)</th>
<th>Rochisha S. Marwaha (SOD)</th>
<th>Spring (Jan – May) or Fall (Aug – Dec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>LINC Simulation IPE Experience (Didactic IPE – Simulation)</td>
<td>Learners from all programs at UT Health San Antonio will be placed in interprofessional groups of 4 and group composition will vary as a result.</td>
<td>Program Requirement</td>
<td>LINC Simulation IPE Initiative Members: Sadie Trammell Velasquez (LSOM), James Cleveland (SON), Diane Ferguson (LSOM), Rebecca Moote (LSOM), David Ojeda Diaz (SOD), Kathryn Parke (SON), and Bridgett Piernik-Yoder (SHP-OT) with support from the LINC Faculty Council Members: Moshtagh Farokhi (SOD), Rekha Kar (GSBS), Meredith Quinene (SHP), Temple Ratcliffe (LSOM), Kathleen Stevens (SON), and Joseph Zorek (LINC Director)</td>
<td>Spring (Jan – May)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>LINC Clinical IPE Experience (Didactic IPE – Collaborative Online Learning &amp; Clinical IPE)</td>
<td>Learners from all programs at UT Health San Antonio are placed in interprofessional groups of 4 and group composition will vary as a result.</td>
<td>Program Requirement</td>
<td>LINC Clinical IPE Initiative Members: Temple Ratcliffe (LSOM), Angela Kennedy (SHP), Rebecca Moote (LSOM), Elena Riccio Leach (SOD) and Marta Vives (SON) with support from the LINC Faculty Council Members: Moshtagh Farokhi (SOD), Rekha Kar (GSBS), Meredith Quinene (SHP), Kathleen Stevens (SON), and Joseph Zorek (LINC Director)</td>
<td>Spring (Jan-May)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.

**Didactic IPE** = IPE activities that take place in classroom and simulation settings as part of formal curricula (i.e., credit-bearing coursework).

**Co-Curricular IPE** = IPE activities that take place outside of formal curricula (volunteer experiences that augment learning/professional development).

**Clinical IPE** = IPE activities that take place in clinical settings as part of formal curricula (i.e., credit-bearing coursework).

**IPE Partners** = Students from other professions/programs involved including their year(s) of study.
Table 2. Learning Activities Relevant to Preparation for Interprofessional Practice that DO NOT Meet the Formal Definition of Interprofessional Education

<table>
<thead>
<tr>
<th>Program Year &amp; Semester</th>
<th>Name of IPE Activity (Type of IPE Activity)</th>
<th>Associated Course/Place in Curriculum (If Applicable)</th>
<th>Faculty Leader(s) from Program</th>
<th>Interprofessional Partners Included</th>
<th>Timeframe to be Completed (Month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>Radiology</td>
<td>PHAS 5201</td>
<td>Leticia Bland</td>
<td>Amy Mumbower (LSOM) Robert Esterl (LSOM)</td>
<td>Spring (Jan – May)</td>
</tr>
<tr>
<td>Year 1</td>
<td>Introduction to Ventilators</td>
<td>PHAS 5001</td>
<td>Leticia Bland</td>
<td>Kristina E. Ramirez (SHP-RC)</td>
<td>Fall (Aug – Dec)</td>
</tr>
</tbody>
</table>

**DEFINITION**

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. That said, HPAC provided guidance that offers an expanded interpretation of “from” and “with” highlighting the importance of student learning that takes place from and/or with post-graduate trainees (e.g., residents) or practitioners/professionals (HPAC, 2019). **Student-to-trainee and/or student-to-practitioner/professional IPE should be included in this table if it exists in the program.**

**Didactic Learning** = Learning activities that take place in classroom and simulation settings as part of formal curricula (i.e., credit-bearing coursework)

**Co-Curricular Learning** = Learning activities that take place outside of formal curricula (volunteer experiences that augment learning/professional development)

**Clinical Learning** = Learning activities that take place in clinical settings as part of formal curricula (i.e., credit-bearing coursework).

**Interprofessional Partners** = Post-graduate trainees (e.g., residents) or practitioners/professionals from other professions.
Assessment and Evaluation

We believe that our physician assistant (PA) students transition from didactic-focused learning to clinical-focused learning resembles that of a medical student transition from medical school to a medical residency in many ways including application of IPE competencies. It is because of this similarity that we chose to utilize the AAMC EPAs and Milestones to form a process to develop a competency track for our students. These EPAs and Milestones were created using the AAMC’s Core Entrustable Professional Activities for Entering Residency and the Core Competencies for the Physician Assistant Profession as a guide.

EPAs and milestones allow the PA Program to monitor the student’s trajectory towards preparation for clinical collaborative practice as a licensed physician assistant. EPA and milestone progression are monitored by faculty advisors and the Student Competency Committee quarterly. These EPAs and Milestones also facilitate IPE curriculum analysis by defining the essential IPE competencies within the physician assistant discipline. Gaps in learning can be more easily identified in relation to the competencies of the profession and provide an opportunity to individualize coaching, on a by student basis, to assist with progression through the curriculum. This framework is expected to assist in faculty development, analysis of program outcomes, assist faculty in recognition of performance expectations of learners and more explicitly demonstrate the skill progression trajectory of each student. Several measurement tools are used including preceptor evaluations, IPE evaluations, peer evaluations, student participation surveys and reflection papers to assess gained knowledge, skills, and abilities pertaining to IPE principles.

IPE Competencies reflected in EPAs and Milestones

<table>
<thead>
<tr>
<th>EPA 9: Work and communicate effectively as a leader or member of an inter-professional health care team to provide patient-centered care.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS-1: Create and sustain a therapeutic and ethically sound relationship with the patient and family members</td>
</tr>
<tr>
<td>ICS-2: Use effective communication skills to elicit and provide information</td>
</tr>
<tr>
<td>ICS-3: Work effectively with physicians and other health care professionals as a member or leader of a health care team or other professional group</td>
</tr>
<tr>
<td>PC-2: Works effectively with patients, families, and other health care professionals</td>
</tr>
<tr>
<td>PC-3: Partners with the patient, family, and community to improve health through disease prevention and health promotion</td>
</tr>
<tr>
<td>SB-3: Actively participates in team-based care</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entrustable Professional Attribute</th>
<th>IPEC Sub-competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA 9: Work and communicate effectively as a leader or member of an inter-professional health care team to provide patient-centered care.</td>
<td>Values/Ethics 5: Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Milestone</th>
<th>IPEC Sub-competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Communication Skills</td>
<td>ICS-1: Create and sustain a therapeutic and ethically sound relationship with the patient and family members</td>
</tr>
<tr>
<td></td>
<td>ICS-2: Use effective communication skills to elicit and provide information</td>
</tr>
<tr>
<td>VE6 Develop a trusting relationship with patients, families, and other team members.</td>
<td></td>
</tr>
<tr>
<td>TT2. Develop consensus on the ethical principles to guide all aspects of teamwork.</td>
<td></td>
</tr>
<tr>
<td>CC1. Choose effective communication tools and techniques, including information systems and communication</td>
<td></td>
</tr>
</tbody>
</table>
| **ICS-3: Work effectively with physicians and other health care professionals as a member or leader of a health care team or other professional group** | **VE5 Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.**

- TT3: Engage health and other professionals in shared patient-centered and population-focused problem-solving

- TT4: Integrate the knowledge and experience of health and other professions to inform health and care decisions, while respecting patient and community values and priorities/preferences for care.

- TT6: Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members.

- TT11. Perform effectively on teams and in different team roles in a variety of settings. |

| **Patient Care** | **VE5 Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.**

- RR5. Use the full scope of knowledge, skills, and abilities of professionals from health and other fields to provide care that is safe, timely, efficient, effective, and equitable.

- TT6: Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members.

- TT11. Perform effectively on teams and in different team roles in a variety of settings. |

| **PC-2: Works effectively with patients, families, and other healthcare professionals** | **VE1. Place interests of patients and populations at center of interprofessional health care delivery and population health**

- VE5 Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.

- RR5. Use the full scope of knowledge, skills, and abilities of professionals from health and other fields to provide care that is safe, timely, efficient, effective, and equitable.

- TT6: Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members.

- TT11. Perform effectively on teams and in different team roles in a variety of settings. |

| **PC-3: Partners with the patient, family, and community to improve health** | **VE1. Place interests of patients and populations at center of interprofessional health care delivery and population health**

- VE5 Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.

- RR5. Use the full scope of knowledge, skills, and abilities of professionals from health and other fields to provide care that is safe, timely, efficient, effective, and equitable.

- TT6: Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among health and other professionals and with patients, families, and community members.

- TT11. Perform effectively on teams and in different team roles in a variety of settings. |
through disease prevention and health promotion

- RR10. Describe how professionals in health and other fields can collaborate and integrate clinical care and public health interventions to optimize population health.

Systems Based Practice

SB-3: Actively participates in team-based care

- VE5 Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services and programs.
- TT8. Reflect on individual and team performance for individual, as well as team, performance improvement.
- TT11. Perform effectively on teams and in different team roles in a variety of settings
- RR9. Use unique and complementary abilities of all members of the team to optimize health and patient care.

This competency framework utilizing EPAs and Milestones is in keeping with our professional accreditation standards utilizing the medical model of interprofessional education. We feel that this competency framework will continue to ensure the students of the University of Texas Health San Antonio’s Department of Physician Assistant Studies will be able to obtain the IPEC Core Competencies.

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 4 and Figure 1 below provide additional information on tools and administration schedules for the LINC Core IPE Measurement Plan.

<table>
<thead>
<tr>
<th>Level*</th>
<th>Measurement Tool**</th>
<th>Constructs</th>
<th>Items</th>
</tr>
</thead>
</table>
| 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               | 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 |
| Level 3 Behaviors            | 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

![Program Duration Diagram](image)

**CORE IPE MEASUREMENT PLAN ADMINISTRATION LEGEND**

- A: Interprofessional Reactions Tool (IPRT)
- B: Student Perceptions of Interprofessional Clinical Education–Revised, Version 2 (SPICE-R2)  
Interprofessional Education Collaborative Competency Self-Assessment Tool, Version 3 (IPEC-3)
- C: Interprofessional Collaborative Competency Attainment Scale–Revised (ICCAS-R)
LINC Core IPE Measure A1 (pre) is administered in May, LINC Core IPE Measure B is administered in September, and LINC Core IPE Measure A2 (post) & C are administered in November.

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

The initial PA IPE Plan was then updated and approved by the Department of Physician Assistant Studies on October 21, 2022.

The approved AY2022-2023 PA IPE Plan was submitted to LINC on October 24, 2022.