Handbook of Student Learning Assessment:

Curricular Programs

and

Co-curricular Programs

Pulaski Technical College
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Section A   PTC Basis for Student Learning Assessment (SLA)

A. 1. The PTC Commitment to Student Learning Assessment

The commitment to continuous student learning assessment is gathering strength every year as the Culture of Learning emerges at Pulaski Technical College. Faculty and staff are committed to the use of assessment results to improve the educational experiences, both academic and co-curricular, offered to all students. Overall, the quality of teaching and learning in higher education must hold at its core the importance of student learning assessment.

This Handbook is designed as a reference for administrators, faculty and staff at Pulaski Technical College for coordinating and/or conducting student learning assessment at the institutional level and/or at the instructional and co-curricular program level. It describes the culture of learning toward which the College is striving while explicating the basic process employed in various configurations across the curricular and co-curricular programs. The Handbook serves as a starting point for new and continuing faculty to begin or re-new their journey through student learning assessment with greater depth offered in all aspects of assessment through the PTC Assessment Office Webpage. Throughout this Handbook, references will be given for location of documents used at PTC during the Assessment process as well as Web locations (url) at which faculty members will find additional and more in-depth information to assist them in their own individual and collaborative team's journey.

Student Learning Assessment is embedded within the College's Mission Statement as the College, through its student learning assessment processes provides access to high quality education promoting student learning.

> *PTC Mission Statement*
> *Pulaski Technical College is a comprehensive two-year college that serves the educational needs of central Arkansas through technical programs, a university-transfer program and specialized programs for business and industry. The College's mission is to provide access to high quality education that promotes student learning, to enable individuals to develop to their fullest potential and to support the economic development of the state.*

The College's commitment to assessment is also evident in the College's Vision which focuses on student success. As one end result of student learning assessment is the improvement of instructional practices as informed by the results, assessment will enable greater student success.

PTC Vision Statement

Pulaski Technical College will be Arkansas' leading comprehensive two-year college, focused on student success and recognized regionally for excellence in workforce development and university-transfer education.

The College's ongoing commitment to student learning assessment is also evident in the College's Core values, specifically the second core value: Improvement. The College has a focus on continuous improvement in all aspects of serving its stakeholders and campus community. Student Learning Assessment greatly assists in identifying strengths and weaknesses within curricular and co-curricular programs. Once these strengths and weaknesses have been identified, faculty will be better enabled to purposefully examine their instructional practices and make improvements based upon data analysis results and recommendations from the research literature.

PTC Value Statement

The Three I's: Integrity, Improvement, and Individuality."

1. Integrity: Integrity means that we align our actions with our commitments and deliver what we promise. We strive to uphold our mission to our students, stakeholders and fellow employees. The core value of the College embraces the axiom, "Integrity of the grade leads to respect for the degree." We value open communication and strive to be fair and transparent in our processes.

2. Improvement: Improvement involves setting and achieving goals. We strive for continuous improvement in all aspects of serving our stakeholders and campus community. We work to recognize the goals of our students, faculty, staff, administration, community and other stakeholders and are dedicated to facilitating their success through efficacy and discipline. We value improvement and strive to set an example for those we are serving.

3. Individuality: Individuality is the recognition that we serve a diverse population of students, faculty and staff. We strive to provide an environment that is adaptable, collaborative, innovative, disciplined and respectful. We see the student as an individual with personal, academic and professional goals. We do not teach curriculum, rather we teach students and are moved by the students to implement the curriculum to facilitate student success. It is our responsibility to help those we serve realize their hopes, dreams and aspirations.

Even when citing its purpose for existence, the College embeds student learning assessment into its purpose statements through its emphasis on offering high quality academic programming. The cyclical process of student learning assessment enables the College to continually improve its instructional practices as it strives toward academic quality in its programs.

PTC Purpose

1. To provide technical programs for students who wish to develop competencies in specific career areas or to upgrade their skills.

2. To provide a university-transfer program of high academic quality for students who plan to transfer to a four-year institution.

3. To support economic development in central Arkansas by providing specialized job-specific programs for business, industry, and other organizations.

4. To provide developmental education courses for students who need basic academic skills.

5. To provide opportunities for adult and continuing education through credit and noncredit courses designed to meet the academic, occupational, and avocational needs of the community.

6. To provide academic advice, library services, learning assistance, counseling, financial aid, and other services to students.

7. To expand access to higher education through distance learning and delivery of instruction at sites accessible to students.

A.2. Student Learning Assessment Defined
Informed by the work of Angelo (1993), Suskie (2009), and Walvoord, (2010), assessment of student learning is the on-going process of systematically reviewing student learning through the collection, compilation, and analysis of student data followed by reflection on the results with the intent to use the information to improve instructional practices leading to increases student learning.

A.3. Purpose of Student Learning Assessment
PTC's primary purpose of student learning assessment is to improve instructional practices and, thus, improve student learning. Assessment is not a one-time occurrence, but a cyclical process that is an integral part of the PTC culture.

A.4. Benefitting from Student Learning Assessment Process
There are many benefits that can be gained through purposeful and thoughtful assessment of student learning. When performed in a well-coordinated and systematic way, assessment of student learning benefits many stakeholders throughout the institution, from the students to the faculty and staff to the administrators and ultimately to the businesses and families within the region.

    For students, student learning assessment will:
- make explicit the expectations for a course or program.

- distinguish across all units of a course the common content.
- provide a cohesive link between program level outcomes and college level outcomes.

For faculty and staff, participating in assessment of student learning will:
- pinpoint productive instructional methods that produce greater gains in learning.
- identify the effectiveness of instructional strategies employed across the various courses and/or programs.
- facilitate collegiality and increase collaborative exchanges among faculty.
- provide a forum for valuable discussions among colleagues.
- provide the substantiation through student learning data that justifies the use of additional resources to improve or sustain programs.
- afford more frequent opportunities for instructor reflection on praxis leading to innovative instructional strategies.

For administrators, supporting college-wide student learning assessment will:
- make evident the institution's commitment to and persistence in improving the academic programs and services offered.
- deliver worthwhile data to support funding requests.
- exhibit transparency in the college's ability to respond to funding agencies/sources.
- deliver useful student learning data culled from actual classroom practices for the purposes of academic planning and decision-making.
- fulfill accreditation requirements for the Higher Learning Commission, Arkansas Department of Higher Education and other regulatory agencies.

A.5. The PTC Student Learning Assessment Organizational Structure

Strategic Plan
The Pulaski Technical College Strategic Plan relates the instructional objectives and program goals for all programs, and connects all levels of assessment to them.

The College's Learning Department
This Department coupled with the Student Assessment Office, the Academic Assessment Committee, and the Strategic Planning Advisory Committee has college-wide responsibility of the assessment of student learning outcomes for all instructional programs, assessment of all administrative units, and assessment of the institutional learning outcomes.

The Academic Assessment Committee
The Academic Assessment Committee's responsibility is to oversee, review, and assess the processes involved in all aspects of student learning assessment for both curricular and co-curricular programs.

Stakeholders

The academic assessment process at PTC starts with stakeholder identification; identifying those groups who have a fundamental concern for the quality of the instructional programs that are offered. Once the stakeholders and their roles within the student learning assessment structure are distinguished (as detailed in the Strategic Plan), the relationship is maintained, and supported through the ongoing sharing of and dialog about student learning and results from the student learning assessment process.

A.6. Assessment and the Planning Process

As all Pulaski Technical College departments and units are engaged in planning as well as assessment, assessment plans detail expected outcomes, progress toward those outcomes, and how results will be used to improve effectiveness. While assessment results are intended to inform planning, they are not substitutes for plans and are not the place to detail administrative strategies, objectives, and planned administrative actions. The results of outcomes assessment from departments and units provide empirical data for said departments and areas to develop their own annual and long-range plans. At the institutional level, this information, as well as information from assessment of institutional outcomes, is analyzed and coordinated within the scope of the college's mission and its projected resources and priorities to develop its recommendations for resource allocation and long-range planning.

A.7. Difference between Course Objectives and Learning Outcomes

Course objectives are distinct from student learning outcomes. Course objectives are the desired achievements addressed by the instructor's instruction (Suskie, 2009; Walvoord, 2010). Accomplishing a set of related course objectives could lead to the student successfully acquiring the knowledge, skills and attitudes needed to accomplish a learning outcome. Learning Outcomes must be observable, measurable and assessable statements of the end products of student learning that include knowledge, skills, processes, and attitudes. For detailed explanations regarding how to write learning outcomes go to the Webpage section titled: Writing Student Learning Outcomes: A Primer.

Section B   Levels of Academic Assessment at PTC

B. 1. Introduction
At PTC, assessment of student learning occurs at three levels.
Faculty members either individually or collaboratively participate
at all three levels:

- Institutional-level assessment: This is based on the
  institutional learning outcomes (ILOs) established by the
  college.
- Academic program-level assessment: This is based on the program learning outcomes
  (PLOs) established for that program.
- Course-level assessment: This is based on the course objectives and course learning
  outcomes (CLOs) established for a particular course.

The course learning outcomes (CLOs), course objectives, and co-curricular program goals for
learning established at PTC are aligned to Bloom's Taxonomy (1956). For more information on
Bloom's Taxonomy, refer to the following PTC Webpage entitled: Bloom's Taxonomy Slide Show

B. 2. College-level
The process for assessment of the College's Institutional Learning Outcomes focuses on
students' attainment of the knowledge, skills, and attitudes consistent with institutional and
appropriate higher education goals. Specific PLOs are targeted across the disciplines that
directly address the Institutional Learning Outcomes (ILOs). These ILOs are assessed annually
through the various programs under the guidance of the Assessment Coordinator and the
Academic Assessment Committee.

Pulaski Technical College recognizes the importance of general education as an integral
component students need to succeed in a career or to transfer for further higher education.
The college facilitates the development of an informed and educated person who thinks
critically and independently, understands and respects the diversity of cultures, and
communicates effectively. General education prepares students for lifelong learning in a rapidly
changing society and fosters the development of responsible, ethical human beings dedicated
to improving their own lives and the lives of others through work, family life, social/cultural
interactions, and service to others.

In a college-wide review (2013), faculty adopted the following Institutional Learning Outcomes
for Pulaski Technical College:

Upon completion of a degree program, successful students will be able to:
1. **Analyze information from credible sources (Information Literacy)**
   This may include the ability to:
   a. Locate relevant information,

b. Evaluate the quality and usefulness of the information, and

c. Synthesize the information.

d. Communicate the information in an ethical manner consistent with the standards of the field or program of study.

2. **Appropriately apply a variety of technology tools within one's discipline. (Technology Literacy)**

This may include the ability to:

a. acquire information,

b. Solve problems,

c. Communicate, and/or

d. Perform tasks and processes.

3. **Communicate effectively with diverse audiences in multiple contexts. (Communication)**

This may include the ability to:

a. Develop, organize, and present <u>orally</u> well-supported ideas formally and informally with consideration of target audience.

b. Develop, organize, and present in <u>written format</u> well-supported ideas formally and informally with consideration of target audience and context.

c. Clearly express ideas, information, and concepts in various modes and media, including the proper use of appropriate technology.

d. Select and utilize means of communication appropriate for a variety of professional, civic, and social circumstances and environments.

e. Consider diverse audiences in multiple contexts.

4. **Apply critical thinking skills to achieve a desired goal. (Critical Thinking)**

This may include the ability to:

a. Apply appropriate methods to solve problems or address issues.

b. Use evidence to justify conclusions.

5. **Use quantitative methods to solve problems. (Quantitative Reasoning)**

This may include the ability to:

a. Analyze and interpret quantitative information.

b. Apply quantitative concepts and skills to solve real world problems.

6. **Demonstrate awareness of cultural differences. (Cultural Awareness)**

This may include the ability to:

a. Explain how similar actions can be understood differently depending on cultural context.

b. Evaluate the impact of culture on individuals and groups.

7. **Demonstrate career readiness skills. (Professionalism)**

This may include the ability to:

a. Demonstrate personal accountability.

b. Meet commitments.

c. Demonstrate ethical and professional behavior.

d. Demonstrate teamwork.

B.3. Curricular and Co-curricular Program Learning Outcomes

Every curricular and co-curricular program at PTC must have clearly stated program learning outcomes (PLOs). These must be prominently displayed in PTC syllabi and within formal PTC communications to stakeholders. Click here for a copy of the Official PTC Syllabus Template.

Faculty remain focused on these learning outcomes in order to ensure that their course objectives remain aligned to these. Each instructor's teaching strategies and learning activities are not only aligned to their course objectives, but are also aligned to their program's stated learning outcomes. Note that not all stated program learning outcomes need to be assessed every semester. It is the responsibility of the faculty teams or members to decide how and when each stated student learning outcome will be assessed as well as when the team will review the PLOs for continued relevance. These PLOs must be reviewed for relevance with the possibility of revision a minimum of every three years or as specified in the College's Strategic Plan.

B.4. Course Learning Outcomes

Course-level assessment is an approach designed to help instructors ascertain the quality of learning acquired by students (Angelo, 1993). This level of assessment is directly related to the course objectives which support and relate to the program learning outcomes (PLOs) established for the program. Over the years, the research literature has advocated the use of a collection of classroom-based quick checks of knowledge: Classroom Assessment Techniques or CATs (Angelo & Cross, 1993). Classroom Assessment Techniques (CATs) refer to a collection of tools faculty can use to get immediate feedback on how well they as instructors are addressing the course objectives and, hence, the student learning outcomes while they are teaching.

CATs reinforce student learning in the following three ways:
- Its use focuses student attention on the critical or most important elements of the Course.
- It provides additional practice in learning and use of thinking skills.
- Its use trains students to become more self-aware, self-assessing, and self-reflective, leading to better independent learners (Angelo & Cross, 1993).

Course-level assessment should be considered an extension of classroom assessment and requires collaboration among instructors teaching different sections of the same course. This collaboration involves agreement on course learning outcomes (CLOs) to assess, and then applying the same assessment techniques followed by compilation of data and data analysis which then culminates in a report of results.

For more information about CATs see the url: http://cft.vanderbilt.edu/guides-sub-pages/cats/

Section C   SLA Process at PTC: Curricular Programs

C.1. Introduction

The process involved in the assessment of learning outcomes needs to be guided and driven by the faculty members of each academic program. The Department Chairs, the Academic Deans, and the Assessment Coordinator assist the faculty in the implementation of the student learning assessment process. The Vice President of Learning and personnel within PTC's Professional Development Institute and the Institutional Research Office provide technical support as needed.
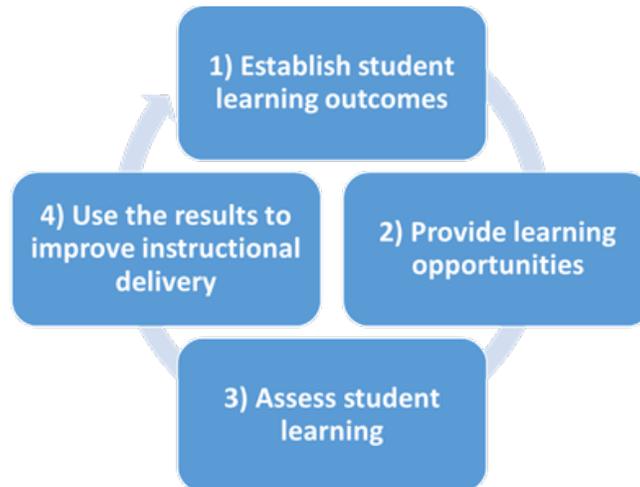
The student learning assessment process is specifically tailored by each faculty team to the needs and requirements of their own particular instructional program and/or course(s), and involves the following:

- Identifying a manageable number of student learning outcomes.
- Aligning student learning outcomes with the College's
    - Mission, Vision and Purpose statements;
    - Institutional Learning Outcomes; and
    - Strategic Plan.
- Completing the Student Learning Assessment Planning Form (SLAP Form) and regularly reviewing and updating the form as indicated by the data analysis and results.
- Completing the Data Collection, Analysis and Reporting Form (DCARP Form) and regularly reviewing and updating the form as indicated by results.
- Conducting the assessment of student learning outcomes by analyzing the data collected.
- Drafting a Report of Results Form (RoR Form) that includes recommendations and a plan of action.
- Implementing the action plan by revising instructional methods and learning experiences using research-based methods.

C.2. Cyclical Process

The essential steps in the process of Student Learning Assessment for academic programs as drawn from the work of Suskie (2009) include the following:

- Identifying the most important/critical learning outcomes for students to achieve at the end of an instructional program (or course).
- Providing students with learning experiences that assist them in acquiring the designated skills, concepts, processes and attitudes.
- Evaluating how well the students achieved the identified student learning outcomes.
- Implementing changes as appropriate based on the findings of the assessment to improve the academic experiences of students.

The process of Student Learning Assessment is depicted in the diagram on this page which has been drawn from the work of Suskie (2009, page 4).

C.3. Student Learning Assessment Planning Form (SLAP Form)

For a template of the Student Learning Assessment Planning Form (SLAP Form) click here.

a. Learning Outcomes

Learning outcomes should address three basic questions at the completion of a program (Schlechty, 1997; Wiggins & McTighe, 2001; Serban & Freidlander, 2004; Suskie, 2009):

- What should the student know? (concepts, knowledge)
- What should the student be able to do? (skills, abilities, processes)
- How has the student's behavior changed as a result of completing a given program? (values, attitudes)

Learning outcomes need to be stated in terms that allow for the results to be observable and measureable. For example:

The student (action verb goes here) the (statement of what is to occur).

The student will demonstrate the process of changing an automobile's oil.

When drafting learning outcomes, avoid the use of the verbs "understand," "know," and "learn" as direct actions of these verbs are not overtly demonstrable, thus rendering them difficult to measure and/or observe.

In PTC's culture of learning, it is preferred that whenever possible faculty work in collaborative teams to identify learning outcomes for their program (PLOs) and their courses (Course

Learning Outcomes also known as CLOs). Also, there is no one set number of learning outcomes required for a program, and not all identified learning outcomes need to be assessed every academic year. In addition, the learning outcomes may remain the same from year to year or they may be modified as needed based on the data analysis results and/or identified needs of the students, instructors, stakeholders, or advisory groups. For each student learning outcome, a description and copy of the assessment instrument(s) and the method of measurement or scoring needs to be identified as well. As indicated on the SLAP Form, an achievement target also needs to be identified.

b. Relationship of each PLO to the ILOs

As indicated on the PTC SLAP Form, each PLO/CLO needs to specifically be related to its corresponding PTC ILO(s). This is accomplished on the SLAP Form by selecting the appropriate boxes next to the corresponding ILO.

All curricular and co-curricular programs must demonstrate the relationship between each PLO/CLO and the corresponding ILOs. Not all ILOs will relate to every PLO or CLO. However, upon successful completion of a program, the student must have engaged in a series of learning experiences that directly addressed all the ILOs, and that evidence of achievement has been documented.

c. Assessment Tools

Direct and indirect measures are methods of assessment used to verify whether or not the student has acquired the learning outcome(s). Direct measures are assessment methods such as exams, written essays, portfolios, projects, presentations, demonstrations of processes (that could be scored with a checklist or rating scale) and authentic assessments (perhaps scored with a rubric). Direct measures need to clearly identify any skills, concepts or processes that address the student learning outcome while also including how the measure will be assessed.

For example, a learning outcome could be stated as follows:

> The student will develop a written essay comparing and contrasting two scientific theories using standard writing conventions while providing the required scientific content as indicated in the scoring rubric.

Indirect measures are assessment methods more commonly used with co-curricular programs and/or for institutional research. These indirect measures are typically used to gather additional supporting data and student information regarding a learning outcome or program outcome especially in regard to changes in student attitudes and/or behaviors. The most commonly accepted indirect measures include focus groups, interviews, questionnaires, self-evaluations, self-rating forms, and surveys.

An example of a learning outcome employing an indirect measure could be stated as follows:

Students participating in the paralegal student association will express a greater regard for civil rights upon completion of their field study at the Civil Rights Museum, Central High Museum and Southern Poverty Law Center.

This learning outcome could be assessed using a self-rating survey in which students are asked to rate whether their level of awareness regarding civil rights has increased or decreased as a result of their museum explorations and to what degree the change has occurred. Students could also be asked to explain during an interview the importance of a given civil right to a specific group in our society, or students could be required to document their experience through a pictorial portfolio with captions or an audio-video recorded presentation.

Some learning outcomes might be handily assessed using one type of assessment such as an essay question or a short answer response on a written test or quiz. Some learning outcomes might be better assessed using some additional multiple choice items on a test as a method of triangulation. Other learning outcomes might require a more extensive measure such as a report or oral presentation or demonstration of acquisition through design and development of a lab experiment, construction of an object, creation of a food item. These would then best be measured using a checklist, rating scale, structured observation or a rubric. For more information on these measures, see the PTC Webpage entitled: The Measuring Learning Compendium.

d. Measurement

On the SLAP Form in the Measurement column, faculty must note the achievement target for each learning outcome. The term "achievement target" is typically defined as the anticipated or preferred result exhibited through the assessment instrument. The achievement target's criteria should not be set at such an unrealistic level that no students could achieve. Neither should the achievement target's criteria be set so ridiculously low that practically all students could meet them. Data analysis results for some are easier to make sense of when a criterion for success is specified.

An example of an achievement target might be stated as follows:

This learning outcome will be considered successfully achieved with a score of 80% or greater as indicated on the scoring rubric by all students assessed.

OR

80% of all students assessed will receive a score of 75% or greater as indicated on the scoring rubric.

Once the SLAP Form has been completed or revised, the program's faculty team drafts their Data Collection, Analysis, and Reporting Form for each learning outcome.

C.4. Data Collection, Analysis and Reporting Form (DCARP Form)
Similar to the steps taken to complete the SLAP Form, the faculty team meets to develop or revise the Data Collection, Analysis and Reporting Form (DCARP Form). A copy of this Data Collection, Analysis and Reporting Form (DCARP Form) is available here.

Briefly, the DCARP Form needs to have each section completed per learning outcome detailing the personnel to be involved in this part of the assessment process and their roles, the time frame for administration of the instrument(s) and the analysis period during which the faculty team meets to compile and analyze the data. During the analysis phase, the faculty team needs to delineate the roles of personnel involved, the time frame for analysis and the specific steps in the data analysis process.

For example, a faculty or staff team establishes a critical thinking process outcome as its learning outcome. This critical thinking process outcome is intended to track students' thinking processes across four different courses within the same discipline. Their learning outcome: *Students will compare and contrast two civilizations, individuals, social or political movements, ideas, time periods, religions, governments, economic systems or ideologies.*

For their data collection, this faculty team drafted the same type of question requesting students use their comparison and contrasting critical thinking skills, however, the choices for topic differs dependent upon the course content. The team decided to offer the question once a quarter, but only draw from the third and fourth quarter responses. For data collection, each faculty member made a photocopy of the students' work. Then, each individual faculty member scored their own students' using their team-developed scoring rubric. Next, each individual faculty member grouped the photocopies of their students' submissions into three agreed-upon categories of weak, mid-range, or strong responses. The faculty team, following their data analysis steps from their DCARP Form, met together to collaboratively score the samples. The team decided not to collectively score all student submissions, but opted to draw from each of the three categories thirty-five for a total of 105 student work samples. Collectively scoring student work samples ensured that all faculty were in agreement as to what constituted an excellent submission, a poor submission and the range in between. Using a document reader and projector along with multiple blank copies of the rubric, faculty members collectively scored each sample and re-grouped them into the three categories. During this collaborative scoring, an Excel spreadsheet was used to input scores for future analysis, and a list of notes was maintained and input on a laptop computer using a Word document. By the end of the scoring session, a completed spreadsheet and a list of insights regarding student work had been recorded. This list of insights noted such items and topics as follows:
- logical progression of compare/contrast thinking;
- ability to bring in relevant and most critical content/concepts to the thinking process; and
- ability to delineate in writing their thinking process.

Next, the faculty turned their attention to reviewing their notes and specific student work samples to review and discuss. In one particular discussion, it came to their attention that

students who made use of a compare/contrast graphic organizer (that had been provided by one instructor as a regular feature of the assignment) prior to beginning their written narrative, exhibited within their written work better organization of thought, more complete descriptions of the content/concepts, and even included a brief introduction and short summary within their response. Overall, these students scored higher than their peers on this assignment.

These results were recorded in the Report of Results Form (RoR Form) along with a list of recommendations for changes in their instructional methods. The one recommendation included specific steps in how to incorporate the use of the Compare/Contrast Chart as a graphic organizer for general use during class as well as a pre-write tool for use with the class assignment. For a template of the Report of Results Form (RoR Form) click here.

The data analysis procedure of the assessment process is intended to identify any learning progress students have made on the achieving the student learning outcomes. The analysis procedure will also pinpoint any gaps in student conceptual knowledge as well as missing links in students' critical thinking skills. These detected gaps and missing links can, then, through an iterative, reflective discourse among the faculty lead to isolating aspects of instructional practices which are either ineffective or highly effective. Through the data analysis, program strengths and weaknesses are teased out regarding student learning outcomes that require continued attention. This, then, becomes the starting point for the faculty team's development of an action plan.

The Action Plan is a section of the Report of Results Form (RoR Form) used to communicate what, if any, changes will be made in the faculty members' classroom management or instructional methodologies as well as how it will be examined during the next academic year. As part of the Action Plan it is appropriate to include any needed professional development, travel, instructional materials, instructional tools/equipment, or facility improvements that will make it possible for the instructors to improve their instructional delivery. Using this level of analysis and reporting, additional funding can be justified in order to make improvements cited within the report. The analysis, also, provides supporting documentation for compliance with any accreditation body's regulations.

Once the SLAP Form and the Data Collection, Analysis and Reporting Form (DCARP Form) have been completed with steps clearly delineated, instruction followed by data collection and analysis occur next. Once the analysis process has been completed, the faculty team then drafts their Report of Results Form (RoR Form) which includes data analysis results, recommendations, faculty's instructional funding needs and a plan of action including a timeline. A template of the Report of Results Form (RoR Form) is available here.

C.5. Report of Results

Findings are the results of the data analysis drawn from the measures used to assess student learning outcomes. The findings indicate the level of student success in achieving the student learning outcomes followed by recommendations for how to improve instruction to better

meet the students' learning needs in order to best enable learning. A template of the Report of Results Form (RoR Form) is available here.

Recommendations for Improvement
Recommendations are based in the data analysis results and are drawn from indicators found during the data analysis as well as the research literature and best practices regarding postsecondary instructional practices within the discipline. In our example from above (Section C.4.), we see that during the data analysis process it was revealed that students from a certain instructor's classes were provided a graphic organizer for them to use when engaged in making comparisons and contrasts. So, drawn from their data analysis results, the faculty team discerned that by providing their students an elucidation of the compare/contrast critical thinking process, students could more thoroughly make said comparisons and contrasts.

Their recommendation was stated as follows:
        All faculty teaching the following courses: [course numbers were listed here] are to incorporate the use of the graphic organizer into their coursework. They are required to specifically provide instruction and practice in its use, and then require students to complete the graphic organizer and turn it in along with their completed narrative response for scoring.

Action Plan
Action plans are the descriptions of what actions will be taken to address the findings (results) identified through the assessment of learning outcomes. Action plans are based on the results of the assessment of learning outcomes, and need to be developed for each learning outcomes when an achievement target has not been met. Action plans are developed after faculty team members have discussed and reflected on their teaching practices and have identified resources needed to institute the changes. The Action Plan demonstrates the commitment of faculty to teaching and learning, while also providing supporting documentation for compliance with the HLC and other accrediting agencies. The Action Plan is also designed to address program improvement based on the Pulaski Technical College's Strategic Plan as well as for quality enhancement purposes. Developed at the end of the academic year cycle, the Action Plan is then implemented during the next academic year or according to the timeline detailed in the plan. An action plan needs to be detailed enough so that there are no questions as to each faculty team member's response, as well as the next steps to be taken.

To continue our original example, the following steps were included per the recommendation for the incorporation of the graphic organizer into the coursework. Note that these steps within the Action Plan section of the Report of Results Form (RoR Form) would also include personnel responsible, a timeline containing completion or due dates for purchases, trainings, and the like as well as a list of any items to be purchased.

For example:
- The faculty will be provided an hour-long professional development session during which the experienced instructor would walk them through how she introduces and provides practice in how to make comparisons/contrasts.
- Faculty will introduce the graphic organizer and its use to students within the first two weeks of class and include two practice homework assignments during which the students would complete the graphic organizer and then share their responses in small groups during the first 15 minutes of the next class session.
- Once the instructor is assured that students are comfortable in completing the graphic organizer, the instructor will walk them through how to draw from the information within the graphic organizer to structure their narrative response.
- In addition, all faculty will receive professional development in how to create an instructional audio/video demonstrating the entire process and posted online for future incorporation into the course.
- A request is also made for the purchase of a document camera and projector for use during their data analysis work sessions. This recommendation included the option to house it in the college library for reservation and checkout by faculty for said purpose.

C.6. Formal Reporting of Results

Report of Results (RoR)
Follow the directions found within the Report of Results Form (RoR Form). This has been detailed in Section C.5. above. A Report of Results Form (RoR Form) is required from each faculty team that has a completed SLAP Form and a DCARP Form posted online at the Assessment Webpage. The Report of Results (RoR Form) Form must be digitally submitted to the faculty or staff team's Department Chair, Dean or Staff Supervisor, and the Assessment Coordinator. These reports will be posted by the Assessment Coordinator on the Assessment Webpage Archive which is a secure section of the PTC Assessment Webpage. A template of the Report of Results Form (RoR Form) is available here.

The Report of Results from each academic program or unit communicates the strengths and achievements of each program/unit as well as areas needing to be addressed for improvement or enhancement. The information provided in the assessment reports from programs can be used by Chairs, Deans and central administration personnel to review the academic year and to inform the College's annual report or reports to accreditation agencies. These reports contribute to the institutional knowledge of the College's academic accomplishments as well as any identified student learning needs. These reports provide important and useful information for program reviews.

The responsibility for conducting student learning assessment lies at the faculty level. Faculty members, preferably working in collaborative teams, will identify their student learning outcome(s), determine the best methods for assessing the selected outcome(s), then collect and analyze student data as stated in their planning forms (SLAP Form & DCARP Form). Following their analysis, the faculty teams will draft a Report of Results Form (RoR) and

implement an action plan to improve student learning. As delineated in their planning forms, these faculty members will follow their self-developed, assessment cycle.

Section D   SLA Process at PTC: Administrative and Support Services Programs

D.1. Introduction

As with academic units, assessment of student services-related programming needs to be ongoing, continuous and systematic in order to improve student support services and student learning as it relates to the services and programs provided. The goal of these units should relate directly to the College's mission and its Institutional Learning Outcomes. Each unit's PLOs should be explicitly stated, measurable, and relate directly to the unit's goals, the College's mission, and the Institutional Learning Outcomes.

Achievement of these outcomes should be assessed against stated targets or benchmarks. The results of the assessment should be reported on and communicated to all identified stakeholders. Within the Report of Results is a section in which the unit's members have identified recommendations to be followed for making programmatic and/or procedural improvements that should lead to greater effectiveness in meeting the needs and expectations of students, parents, employers, faculty and other stakeholders. These recommendations should also itemize how resources could be allocated or re-allocated while, also, informing other decisions related to the unit's area of responsibility (Bresciani, 2006).

Student Learning Assessment, as it is addressed in this manual, relates to measuring critical processes, procedures and materials commonly used within the unit's programs and services in order to gather data that provides information about how this unit's programs and services are meeting stakeholders' needs and expectations. Be aware that this type of assessment is *not* a performance evaluation of individual staff members and is never to be used as such.

Assessing outcomes within the various programmatic aspects of student support services is beneficial in providing data critical to making positive and proactive improvements in everything from operations to internal/external processes to staff-student discourse. Each unit should tailor their student learning assessment specifically to their unit's program and services provided. Indirect and direct measures should be employed as appropriate to the stated student learning outcome. The process of establishing and assessing outcomes provides the focus on quality improvement, constituent satisfaction, and student learning (New Leadership for Student Learning and Accountability, 2012).

D.2. Cyclical Process

The essential steps in the process of student learning assessment as adapted to co-curricular programs, and drawn from the work of Suskie (2009, page 4), include the following:

- Identifying the most important/critical student learning outcomes for students to achieve at the end of a program component.
- Providing students with learning experiences, that is, co-curricular programming, that assist them in acquiring the designated skills, concepts, processes, and attitudes as identified by the program goals and identified student learning outcomes.
- Evaluating how well the students achieved the identified student learning outcomes.
- Implementing changes as appropriate based on the findings of the assessment in order to improve the co-curricular learning experiences of students.

The process of Student Learning Assessment is depicted in the diagram below which is drawn from the work of Suskie (2009, page 4).
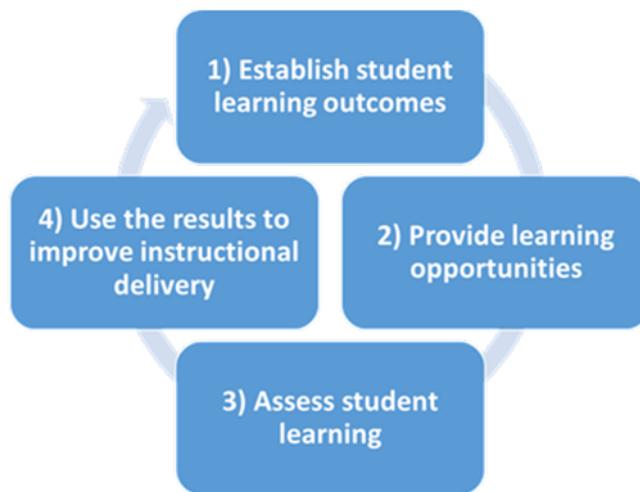
D.3. Student Learning Assessment Planning Form: Administrative Student Services Program Assessment

Student Learning Assessment for co-curricular programs helps determine whether students can integrate learning from other programs/courses into a coherent whole. It is interested in the cumulative effects of the total postsecondary education process (Palomba & Banta, 1999; Bresciani, 2006). Whereas classroom assessment focuses on gauging learning for individual students, co-curricular program student learning assessment gauges the learning of students as a group. The outcomes information is used to improve programs and services. This assessment is based on established program goals and objectives that relate to stated student learning outcomes. For a template of the Student Learning Assessment Planning Form (SLAP Form) click here.

a. Learning Outcomes

Learning outcomes should address three basic questions (Schlechty, 1997; Wiggins & McTighe, 2001; Serban & Freidlander, 2004; Suskie, 2009; and Walvoord, 2010) at the completion of a program:

- What should the student know? (concepts, knowledge)
- What should the student do? (skills, abilities, processes)
- How has the student's behavior changed as a result of completing a given program? (values, attitudes)

Student learning outcomes need to be stated in terms that allow for the results to be observable and measureable. For example:

The student (action verb goes here) the (statement of what is to occur).

The student will complete with 90% accuracy or better their own course planning form.

When drafting student learning outcomes, avoid the use of the verbs "understand," "know," and "learn" as direct actions as these verbs are not overtly demonstrable, thus rendering them difficult to measure and/or observe.

In PTC's culture of learning, it is preferred that whenever possible, staff members work in collaborative teams to identify program learning outcomes (PLOs) for their unit's program(s). Also, there is no set number of PLOs required for student learning assessment within a program, and not all identified PLOs need to be assessed every academic year. In addition, the PLOs may remain the same from year to year or they may be modified as needed based on the data analysis results and/or identified needs of the students or program. For each student learning outcome, a description and copy of the assessment instrument(s) and its specific questions (If not all questions are intended to be used to measure that particular PLO.) and the method of measurement or scoring needs to be identified as well. As indicated on the SLAP Form, an achievement target also needs to be identified.

b. Relationship of each PLO to the ILOs

Co-curricular programs must demonstrate the relationship between each PLO and the ILOs. Not all ILOs will relate to each program PLO. However, upon successful completion of a unit's program, the student must have engaged in a series of learning experiences that directly addressed all of the related ILOs, and that evidence of achievement has been documented. When completing a Student Learning Assessment Planning Form for a particular unit, PLOs must be related directly to the ILOs as well as to any stated program goals. This is accomplished on the SLAP Form by selecting the appropriate boxes next to the corresponding ILO. Also, in the column titled "Course" the unit should give the name of the programs/services that are offered by said unit in connection to each stated PLO.

c. Assessment Tools

Direct and indirect measures are methods used in assessment to verify whether or not the student has acquired the learning outcome(s). Direct measures are assessment methods such as exams, written essays, portfolios, projects, presentations, demonstrations of processes (that could be scored with a checklist or rating scale) and authentic assessments (perhaps scored with a rubric). Direct measures need to clearly identify any skills, concepts or processes that address the student learning outcome while also including how the measure will be assessed.

For example, a PLO to be assessed using a direct measure could be stated as follows:

> The student will develop their college program planning form with 90% accuracy or greater using the College's Website, course catalog, transcripts, and planning form.

Using a Checklist to review the form would be an instrument that could provide the direct measure for this PLO.

Indirect measures are assessment methods more commonly used with co-curricular programs and/or for institutional research. These indirect measures are typically used to gather additional supporting data and student information regarding a learning outcome or program outcome especially in regard to changes in student attitudes and/or behaviors. The most commonly accepted indirect measures include focus groups, interviews, questionnaires, self-evaluations, self-rating forms, and surveys.

An example of a PLO that employs an indirect measure could be stated as follows:

> Students participating in the Introduction to College Seminar will indicate an increase in understanding of the co-curricular activities available on campus regarding careers and cultural competence.

This PLO could be assessed using a self-rating survey in which students are asked to rate whether their level of awareness regarding their understanding of the co-curricular activities has increased or decreased as a result of their participation in the College Seminar and to what degree the change has occurred. They could also be asked to explain during an interview the importance of their own personal experiences in these co-curricular activities to their own lives.

Assessment Activities typically consist of open-ended questions regarding content, procedures, or conceptual knowledge and are sometimes administered in a pre-/post program experience method. Also, many surveys include such items as self-ratings of changes in knowledge regarding the program's goals or PLOs. Measuring of these items is dependent upon the question and the question type. Most self-rating questions display data as the percentage of responses per response item. Some questions that measure the strength of increase or decrease is display data as a percent gained or lost.

d. Measurement

On the SLAP Form in the Measurement column, staff members working collaboratively must note the achievement target for each PLO. The achievement target is the desired or expected result demonstrated through the assessment instrument. The criteria for the achievement target should neither be set unrealistically high that no one can achieve it nor so low that all students can meet them. It becomes difficult to make use of student data to improve the program without specifying a criterion or some criteria for success.

An example of an achievement target might be stated as follows:

> This PLO will be considered successfully achieved when 90% of students surveyed indicate a positive change in their attitude regarding cultures different from their own.

Once the SLAP Form has been completed (or revised), the program's staff members draft their Data Collection, Analysis, and Reporting Form (DCARP Form) for each PLO.

D.4. Data Collection, Analysis and Reporting Planning Form (DCARP Form)

Similar to the steps taken to complete the SLAP Form, the staff team members meet to develop or revise the Data Collection, Analysis and Reporting Form (DCARP Form). For a template of the Data Collection, Analysis and Reporting Form (DCARP Form) click here.

Briefly, the DCARP Form needs to have each section completed detailing the personnel to be involved in this part of the assessment process and their roles, the time frame for administration of the instrument(s) and the analysis period during which the faculty team meets to compile and analyze the data. During the analysis phase, the faculty team needs to delineate the roles of personnel involved, the time frame for analysis and the specific steps in the data analysis process.

For example, a unit team in student services is operating a service-learning program for students in which during their third semester students develop and implement a service-learning project of their own choosing. One of their many stated PLOs is that students will demonstrate planning skills in order to address a community need.

For their data collection, the unit team developed the following instruments and timeline for data collection:

Service-Learning Data Collection		
Instrument	Timeline	Personnel responsible
Service-Learning Planning Form	Student must complete by end of week 2 with revision completed by end of week 3	Service-Learning Coordinator & Coaches review using rubric to check for completeness and clarity
Team Members Survey	Administered during last week of Service-Learning project-online	Service-Learning Coordinator
Service Learning Project Leader Survey	Administered during last week of Service-Learning project-online	Service-Learning Coordinator
Service Learning Project Leader Interview	Administered during last week of Service-Learning project	Service-Learning Coaches

The staff team members, following their data analysis steps from their DCARP Form, met together to collaboratively review and compare the compilation from the online survey responses to ascertain whether the team members perspectives regarding planning was similar to or different from the team leader (and project planner). They reviewed the responses looking for common areas in which team members and leaders were in accord and in which they differed as to how well the project was planned and how well the original plan was followed. They also compiled a list of reasons why plans were revised "on-the-fly." In addition, they compared the first submission of each team leader's planning form to their final version. They created a chart listing the deficiencies while brainstorming ways to improve the form as well as to improve the planning instructions and planning instructional sessions. Next, the team turned their attention to the digitally recorded interviews of all twelve service-learning project leaders. Using a note-taking guide the unit team members developed, they listened and took notes as per the guide. They met and discussed their findings, compiling a list of what they perceived as the most salient issues to address. All these results were recorded in the Report of Results Form (RoR Form) along with a list of recommendations for changes in their program delivery methods.

For a template of the Report of Results Form (RoR Form) click here.

The data analysis procedure of the assessment process is intended to identify any learning progress students have made on the achieving the student learning outcomes. The analysis procedure will also pinpoint any gaps in student conceptual knowledge as well as missing links in students' critical thinking skills. These detected gaps and missing links can, then, through an iterative, reflective discourse among the faculty lead to isolating aspects of instructional

practices which are either ineffective or highly effective. Through the data analysis, program strengths and weaknesses are teased out regarding student learning outcomes that require continued attention. This, then, becomes the starting point for the faculty team's development of an action plan.

The Action Plan is a section of the Report of Results Form (RoR Form) used to communicate what, if any, changes will be made in the staff members' student interactions or programming as well as how it will be examined during the next academic year. As part of the Action Plan, it is appropriate to include any needed professional development, travel, instructional materials, instructional tools/equipment, or facility improvements that will make it possible for the instructors to improve their instructional delivery. Using this level of analysis and reporting, additional funding can be justified in order to make improvements cited within the report. The analysis, also, provides supporting documentation for compliance with any accreditation body's regulations.

Once the SLAP Form and the Data Collection, Analysis and Reporting Form (DCARP Form) have been completed with steps clearly delineated, the program is delivered. Data collection and analysis occurs next. Once the analysis process has been completed, the team members then draft their Report of Results Form (RoR Form) which includes data analysis results, recommendations, staff member's program funding or resource needs, and a plan of action including a timeline. For a template of the Report of Results Form (RoR Form) click here.

D.5. Report of Results

Findings are the results of the data analysis drawn from the measures used to assess the student learning outcomes. The findings indicate the level of student success in achieving the student learning outcomes followed by recommendations for how to improve instruction to better meet the students' learning needs in order to best enable learning. For a template of the Report of Results Form (RoR Form) click here.

Recommendations for Improvement
Recommendations are based in the data analysis results and are drawn from indicators found during the data analysis as well as the research literature and best practices regarding postsecondary practices. In our example from above (Section D.4.), let's say that during the data analysis process it was revealed that students did not provide nearly the detail in procedural steps and considerations as needed to assure the Service-Learning Coordinator that they had considered all aspects of the project including materials needed, schedule/time frame and safety. So, drawn from their data analysis results, the team members discerned that providing students with additional practice experiences would be better prepare them for the planning phase of their Service-Learning project.

Their recommendation was stated as follows:

Students will be better prepared for the planning stage of the Service-Learning project if provided with the following additional learning activities:

- A more detailed planning template,
- A how-to-plan demonstration led by certified project managers, and
- A Q&A session with a panel of former successful Service-Learning program students.

Action Plan

Action plans are the descriptions of what actions will be taken to address the findings (results) identified through the assessment of student learning outcomes. Action plans are based on the results of the assessment of student learning outcomes, and need to be developed for each PLO when an achievement target has not been met. Action plans are developed after unit team members have discussed and reflected on their program practices and have identified resources needed to institute the changes. The Action Plan demonstrates the staff member's commitment to student achievement, while also providing supporting documentation for compliance with HLC and other accrediting agencies. The Action Plan is also designed to address program improvement based on the College's Strategic Plan as well as for quality enhancement purposes. Developed at the end of the academic year cycle, the Action Plan is then implemented during the next academic year or according to the timeline detailed in the plan. An action plan needs to be detailed enough so that there are no questions as to each faculty team member's response and next steps.

To continue our original example, the following steps were included per the recommendation for the Service-Learning Project. Note that these steps within the Action Plan section of the Report of Results Form (RoR Form) would also include personnel responsible, a timeline containing completion or due dates for purchases, trainings, as well as a list of any items to be purchased.

Service-Learning Action Plan		
Task	**Personnel Responsible**	**Timeframe/Due Date**
Revise Service-Learning Project Planning to add more detail & emphasis	Service-Learning Coordinator & Coaches	May 1 - 31
Develop a list of Project Managers willing to how-to-plan demonstration	Service-Learning Coordinator	May 31
Work collaboratively with Project Managers from the list to develop materials & review the types of projects typically proposed	Service-Learning Coordinator & Coaches	June 1 – July 31
Develop a list of successful Service-Learning Project leaders willing to share their planning process	Service-Learning Coordinator & Coaches	May 1 – July 31
Establish presentation schedule for Fall & Spring semesters	Service-Learning Coordinator & Coaches	September 1

D.6. Formal Reporting of Results

Report of Results
Follow the directions found within the Report of Results Form (RoR Form). This has been detailed in Section D.5. above. A Report of Results Form (RoR Form) is required from each unit team that has a completed a SLAP Form and a DCARP Form posted online at the Assessment Webpage. The Report of Results Form (RoR Form) must be digitally submitted to the program's Coordinator and Director as well as the Assessment Coordinator. These reports will be posted by the Assessment Coordinator on the Assessment Webpage Archive which is a secure section of the PTC Assessment Webpage.

The assessment reports from each instructional program or administrative unit communicates the strengths and achievements of each program/unit as well as areas needing to be addressed for improvement or enhancement. The information provided in the assessment reports of programs can be used by program coordinators, program directors, and central administration personnel to review the academic year. Assessment reports contribute to the institutional knowledge of the College's accomplishments. These reports provide important and useful information for program reviews and for reports required by outside accreditation agencies.

Program Directors, Coordinators, Supervisors, and unit team members of each co-curricular program have the primary responsibility of conducting student learning assessment that follows a cycle delineated in their particular plan. The unit's team members of a given co-curricular program develops an assessment plan, implements the assessment plan, analyzes the results of their assessments, followed by drafting and implementing an action plan to improve student learning.

Section E   The PTC Culture of Learning

E.1. Introduction

The Culture of Learning at PTC is gaining momentum as faculty and staff turn to a more collaborative way of interacting around student learning. Faculty and staff teams across the disciplines and various campus locations have developed their Student Learning Assessment Planning Forms (SLAP Forms) as well as their Data Collection, Analysis & Report Planning Form (DCARP Form) and have been collecting and analyzing student learning data since 2005.

In an article by Weiner (2009) for the American Association of University Professors website: "[T]here are fifteen major elements contributing to the attitudes and behaviors of a true culture of assessment [or culture of learning]. Few institutions of higher education can assert an expert level for all fifteen items, but those who claim to have an assessment culture must recognize them, be expert at some, and be moving toward achieving the rest. Only when an institution is on the path to meeting these standards can its claim to having a culture of assessment [learning] be taken seriously. The fifteen elements needed are the following: clear learning outcomes, common use of assessment-related terms, faculty ownership of assessment programs, ongoing professional development, administrative encouragement of assessment, practical assessment plans, systematic assessment, the setting of learning outcomes for all courses and programs, comprehensive program review, assessment of co-curricular activities, assessment of overall institutional effectiveness, informational forums about assessment, inclusion of assessment in plans and budgets, celebration of successes, and, finally, responsiveness to proposals for new endeavors related to assessment."

Where do we stand with regard to these 15 major elements? Use the checklist below to ascertain this for yourself.

Major Elements in a Culture of Learning			
Element	Recognize Element	Moving Toward Expertise	Expert at Element
Clear learning outcomes			
Common use of assessment-related terms			
Faculty ownership of assessment programs			
Ongoing professional development			
Administrative encouragement of assessment			
Practical assessment plans			
Systematic assessment			
The setting of student learning outcomes for all courses and programs			
Comprehensive program review			
Assessment of co-curricular activities			
Assessment of overall institutional effectiveness			
Informational forums about assessment			
Inclusion of assessment in plans and budgets			
Celebration of successes, and, finally			
Responsiveness to proposals for new endeavors related to assessment			

E.2. Engaging in the PTC Culture of Learning

Getting started with student learning assessment is as easy as engaging in discussion with the Chairperson or Supervisor of your department or engaging with your colleagues about it at the next faculty/staff team meeting. If you are not part of a team that is actively engaging in the student learning assessment process, contact the Assessment Coordinator and ask to meet and discuss the next steps.

If you wish to deepen your own personal knowledge regarding the student learning assessment process, much research-based information can be located right on the College's Assessment Webpage. In addition, a reference list of excellent publications and Websites are also found on the College's Assessment Webpage: http://www.pulaskitech.edu/sla

If you wish to join or start a brown bag lunch session to engage your colleagues in discussing assessment topics, problem solving assessment issues, brainstorming ways to improve assessment procedures or just to sit and absorb a discussion, contact the Assessment Coordinator for more information.

If you wish to receive professional development in specific topics regarding Student Learning Assessment check the PTC Website's Professional Development Institute Webpage for a list of

trainings offered at PTC. Every year introductory sessions are offered providing an overview of the Student Learning Assessment process at PTC as well as sessions offered on specific topics such as how to develop a rubric and other scoring instruments, types of assessments, and the most recent research regarding what's new at the postsecondary level for Student Learning Assessment.

In addition, faculty and staff can always serve on the Academic Assessment Committee and/or become a member of the Arkansas Association for the Assessment of Collegiate Learning (AAACL). This Association offers an in-state conference annually.

And, of course, you can at any time email the Assessment Coordinator and set up an appointment to get specific information or assistance with any of your Student Learning Assessment needs or questions.

E.3. Characteristics of Effective Student Learning Assessment for an Academic Program

The research literature has made it clear over the last twenty years that effective student learning assessment at the academic program level should answer the following questions:
- What is the primary purpose of this particular program?
- What are we trying to accomplish through this program?
- How effective are we at the work we are doing?

Using the answers to the first three questions, we continue asking ourselves these questions:
- How can we improve what we are doing?
- What and how does our Department contribute to the overall mission of the College?
- How can our Department improve its support overall of the student learning experience?

Student Learning Assessment is about more than just measuring results. It is also concerned with continuous improvement, especially in regard to curriculum and instruction over the long term. According to the research literature, assessment is most effective when:
- It is viewed as an activity that is comprehensive, systematic and continuous. (Mullin & Grelle, 1994)
- It is viewed as a means for instructional improvement.
- It makes meaningful use of multiple measures.
- Its results are used as a management tool to improve an institution's structure, services, and/or processes.
- As part of its process, assessment involves the participation and input of all faculty and staff.
- The student learning assessment process includes student involvement.

E.4. Characteristics of Effective Assessment for a Co-curricular Program

The research literature concerning co-curricular programs at postsecondary institutions has made it clear over the last twenty years that effective student learning assessment should answer the following questions:
- What is the primary purpose of our unit and its services/programs?
- What is our unit trying to accomplish with these services or this program?
- How effective is our unit at the work we are doing?

Using the answers to the first three questions, we continue asking ourselves these questions:
- How can we improve what we are doing in our unit?
- What and how does our unit contribute to the overall mission of the College?
- How can our unit improve its support of students and its services to students in regard to the student's postsecondary learning experiences?

Student Learning Assessment even with the student support programs is also more than simply measuring results. It, too, is also concerned with continuous improvement over the long term (Bresciani, 2006). According to the research literature, assessment is most effective when:
- It is viewed as an activity that is comprehensive, systematic and continuous (Mullin & Grelle, 1994).
- It is viewed as a means for improvements in programming, program materials and/or learning activities.
- It makes meaningful use of multiple measures to improve procedures.
- Its results are used as a management tool to improve an institution's structure, services, and/or processes.
- As part of its process, assessment involves the participation and input of all stakeholders who make use of the programs and services.

E.5. Program Review Guidelines
The College's program review is a comprehensive, systematic method of program evaluation and review of the academic programs' goals and objectives. The program review process complements the on-going institutional effectiveness and is a vital part of the College's strategic planning effort. Program reviews are conducted as per the set criteria of the various accrediting bodies and at a minimum of every five years.

E.6. Checklist for Faculty
Participation in student learning assessment at PTC occurs at various levels. Faculty/staff members should take time to examine and reflect upon their own involvement in the college-wide assessment efforts. The questions listed below are intended to assist in the reflection process (Schön, 1983) regarding course level instruction and classroom learning activities.

Reflection questions recommended by the research literature are provided in the list below.

- Do I know the College's Institutional Learning Outcomes?
- Do I understand the relationship among my program's goals, my course's learning objectives and the College's Institutional Learning Outcomes?
- While teaching, am I aware of the course objectives and any related student learning outcomes being addressed at that time?
- Does my course syllabus follow the College's guidelines, and does the syllabus contain the most important information regarding Student Learning Assessment?
- Is the curricula of my courses directly related to the identified CLOs? PLOs? ILOs?
- Am I administering the learning outcome-related student assessment assignments according to our plan as stated in the SLAP Form?
- Do I proactively participate in my Department's student learning assessment process?
- After our data analysis session(s), do I reflect upon how I could improve or change my instruction to more positively impact student learning?

If you cannot answer most of these questions with the information requested OR if you cannot answer in the affirmative, then you need to meet with your Department Chairperson and/or the Assessment Coordinator to learn more about how you can participate in the student learning assessment process.

E.7. Checklist for Program Directors, Program Coordinators, and Program Staff
Participation in student learning assessment at PTC occurs at various levels throughout all student services programs. Program staff members should take time to examine and reflect upon their own involvement in the college-wide assessment efforts. The questions listed below are intended to assist in the reflection process (Schön, 1983) regarding course level instruction and classroom learning activities.

- Do I know Pulaski Technical College's Institutional Learning Outcomes?
- Do I understand the relationship between my program's goals and objectives to the College's Institutional Learning Outcomes?
- Am I aware of my unit's learning outcomes that are currently being assessed?
- Am I familiar with the instruments used to assess the learning outcomes for my unit?
- Am I planning to routinely attend the work session(s) with team members in my unit to perform data analysis and discuss results?
- After our data analysis session(s), do I reflect upon how I could improve or change my program delivery in order to more positively impact student learning?

If you cannot answer most of these questions with the information requested OR if you cannot answer in the affirmative, then you need to meet with your unit Supervisor and/or the Assessment Coordinator to learn more about how you can fully participate in the student learning assessment process within your unit.

E.8. College Syllabus

In order to provide our students with a consistent representation of course work and information regarding their courses, the Academic Programs Committee has developed a standardized syllabus format with which all faculty must comply when developing a course syllabus.

Assessment Statement for Your Course Outline
Establishing a college-wide culture of learning includes involvement of our students. Please consider putting an assessment statement in your course syllabus. A suggested statement follows:

> PTC supports a college-wide student learning assessment program. The main purpose of student learning assessment concerns effective instructional methods and learning activities that promote student learning achievement. Course objectives along with the Institutional Learning Outcomes concerning Communication, Critical Thinking, Cultural Awareness, Information Literacy, Professionalism, Quantitative Reasoning and Technology Literacy will be continuously assessed. You, as a student, should always be aware of and understand the program goals, each course's objectives and the learning outcomes associated with your program of study. We strive at PTC to assist our students to achieve at their optimum potential. For more information on the College's learning outcomes go to http://www.pulaskitech.edu/sla

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