FLORIDA POLYTECHNIC UNIVERSITY

Institutional Effectiveness Manual

FOR STRATEGIC AND OPERATIONAL PLAN REPORTING, ACADEMIC AND ADMINISTRATIVE ASSESSMENT PLANNING, REPORTING, AND CONTINUOUS IMPROVEMENT

Developed by the Office of the Vice Provost of Academic Affairs and Office of Institutional Research and Effectiveness
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Institutional Effectiveness

Since opening in fall 2014, Florida Polytechnic University (Florida Poly) has systematically and continuously engaged in assessment practices in both administrative functions and academic programs. Over time, our assessment quality has improved to focus on more measurable objectives that are aligned with strategic initiatives and ongoing core functions. At the academic program level, the University started almost exclusively with course-level assessment. As students moved through our curriculum, appropriate course-level outcomes grew with the students in the program to provide us with an emerging picture of student outcome attainment at the program level. This picture began to take shape with the graduation of our first class in January 2017, subsequent achievement of initial accreditation, and now, as we have continued to evolve the assessment process to ensure program quality and continuous improvement. This manual has been reviewed and revised toward the goal of resetting the guidelines and practices to facilitate ongoing administrative and academic program assessment from the standpoint of a maturing institution.

Purpose of this Manual

The purpose of this manual is to provide campus leaders with a common language and method for assessment planning and reporting, as well as clear instructions and examples. It is divided into two major sections (or volumes): Academic Program Assessment; Administrative Unit Assessment.

To simplify, Academic Program Assessment refers to assessing student outcomes for award-issuing curricular programs (e.g. degree programs). Administrative Unit Assessment is everybody else (e.g., Advancement, Financial Aid, Student Life, etc.). Of course, each administrative unit has its own unique mission and contributes in specific ways to the institutional mission, but for purposes of assessment processes, they are all the same.

Institutional Effectiveness, Assessment, & Continuous Improvement

Institutional effectiveness (IE) is "is the systematic, explicit, and documented process of measuring performance against mission in all aspects of an institution" (SACSCOC *Resource Manual*, 4th ed, rev. 2024). Institutional effectiveness is central to the *Principles of Accreditation* of the Southern Association of Colleges and Schools Commission on Colleges (**SACSCOC**) as well as the other regional accreditation agencies in the United States. As a concept, it is not unique to SACSCOC, nor does it begin with SACSCOC. It is predicated on the notion that all facets of the institution should work toward advancing that institution's mission, thereby achieving the University's **vision**—its reputation and legacy. Since Florida Poly is a SACSCOC member institution, we take our cues from our peer institutions and base our understanding and implementation of IE on the standards and expectations set by the Southern region. Starting in 2026, Florida Poly will begin working with the Commission for Public Higher Education (CPHE) and the Higher Learning Commission (HLC). Much like SACSCOC, CPHE and HLC emphasize the importance of demonstrating student success through evidence-based teaching and learning practices. A key component of this process is the systematic collection and use of assessment data. As our engagement with CPHE and HLC deepens, we will provide ongoing updates and guidance regarding assessment expectations to ensure alignment with their standards.

Left by itself, IE could become static. If your mission is to bat .300 and you always do, then you have met your mission, but you are not improving. **Continuous improvement** is a commitment to ongoing planning, evaluation, and change with the intent to improve upon the effectiveness of meeting one's mission, achieving or reaching the University's vision, and thereby delivering a higher quality experience for all institutional stakeholders. In order to "continuously improve," an organization must engage in assessment. **Assessment** is a systematic process of gathering and interpreting information relevant to your objective and operations in order to evaluate performance and make improvements. Assessment is the activity that underlies IE and ensures continuous improvement.

IE and Assessment at Florida Poly

To elaborate, Florida Poly defines assessment as

a systemic and ongoing process of systematically and regularly collecting, reviewing and utilizing data to improve educational and academic support and administrative programs and services to enhance student learning, growth and development.

The implementation of IE varies across institutions, but the purpose is always the same: to demonstrate mission achievement and continuous improvement.

The University's assessment process is purposefully designed to put greater focus on **outcome** measures (the effect on/benefit to constituents), as opposed to **outputs** (how much/how many) of work-related processes. It includes assessment, as a **formative** process, conducted for better understanding and seeks feedback that may result in adjustments and modifications to academic programs and student support services for improvement; while **summative** assessment is conducted as an overall evaluation of programs and services for the purposes of accountability, decision-making, resource allocation and meeting regulatory compliance.

Assessment serves to:

- Validate that the University has achieved its stated mission and goals;
- Improve programs and services when and as needed;
- Inform campus constituents and stakeholders of the state of the institution; and
- Support decision-making, planning, resource allocation and external compliance.

In general, the development of Florida Poly's assessment plans must:

- Be aligned with the mission, vision, core values, and strategic plan of the University.
- Provide results as a means, rather than an end, that are useful for individual students, faculty, staff, programs and the University.
- Have reasonable and manageable number of outcomes or objectives.
- Be relevant, meaningful, measurable and sustainable.
- Be efficient and feasible, using appropriate procedures, instruments and data.
- Synthesize information from a variety of instruments (both qualitative and quantitative as well as direct and indirect measures).
- Focus on the degree programs and service units rather than on individual courses or functional level.
- Be integrated into the curriculum or services provided.
- Meet internal and external (accreditation, public reporting) requirements.
- Be ongoing rather than periodic or episodic, and continuously evaluated and improved.
- Be a coordinated effort of input and discussion by the entire department/unit and all impacted constituents.

From this foundation of assessment, Florida Poly's IE process expands to include three integrated cycles of assessment: strategic plan assessment (3 -5 years); annual administrative and academic assessment (1-year); and periodic program reviews/self-study (6-years). Although these assessment cycles occur at different timeframes, they share data and information and impact continuous improvement, evaluation, and planning of the management and allocation of institutional resources.

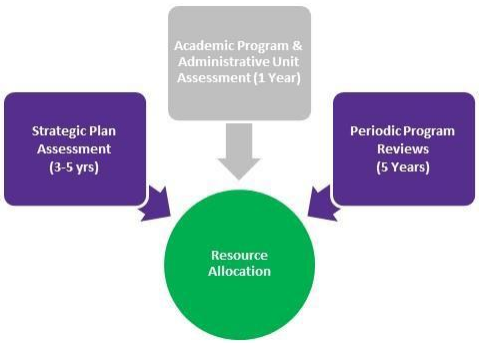


Figure 1. Planning Process

Strategic Planning Process & Assessment

The **strategic planning** and assessment process is an administrative process of shared-responsibility. This process includes the following steps:

1. Analysis of the internal and external environment (e.g., SWOT; environmental scan, internal and external audit findings, program reviews/self-studies).
2. Review and/or revision of institutional mission, vision, core values and priorities.
3. Development of strategic directions (e.g., University goals, objectives, priorities and resources).
4. Development of evaluation strategies (e.g., indicators of effectiveness/benchmarks).
5. Review and assess outcomes*.
6. Adjust policies and procedures.
7. Adjust means/action plans.

*The Assessment of the **strategic plan** occurs in the fifth step, which includes both formative and summative processes. The strategic plan formative assessment is a part of the annual assessment cycle, and when necessary adjustments are made to the policies, procedures, priorities, and/or the assessment process itself. Additionally, action plans are developed to address and respond to the areas of concern. Summative assessments are conducted at the end of the strategic plan cycle to demonstrate IE and accountability, and the overall achievement of the University's mission.

On an annual basis, two interrelated activities drive institutional effectiveness at Florida Poly:

1. The State of Florida Budget process and Board of Governors' strategic plan with annual updates through the Accountability Report; and
2. The University's Board of Trustees annual review of the University's strategic plan progress report.

These two events direct two major aspects of the University: One, the state budget impacts how the University achieves its mission, as mission achievement is driven by the resources (and effective allocation of those resources) to the appropriate activities, at the appropriate levels. What constitutes "appropriate" changes for numerous reasons and is part of what drives the need for continuous improvement.

Two, the University's strategic plan is a more focused effort to get closer to the University's ***vision,*** *what it wants to become*. Strategic plans may be broad-based documents that outline a path and objectives related to all or nearly all facets of a university, as our first strategic plan was since it was a newly developed University. More commonly, strategic plans focus on key areas of institutional priority, defined by its many stakeholders, that will enhance the profile of the University and further establish, or cement, its desired reputation and status in the world of higher education.

In academic year 2023 – 2024, the University undertook a review of its mission and vision and drafted a new strategic plan. This was an appropriate time for the Florida Poly to engage in this process because the university met its legislative mandates and achieved initial regional accreditation from SACSCOC. Our inaugural strategic plan was largely completed. Part of any dynamic institution is the expectation that it conducts a periodic review of its mission and vision, and a strategic plan is an important part of this.

As the President's proposed plan received full approval and confirmation, the University embraced a new mission, vision, and plan for the next five years. Florida Poly's mission, vision, and broad strategic planning priorities through its initial phase of operations are as follows. Florida Poly's Strategic Plan for 2025–2030, detailing our institutional priorities and vision for the future, is available here.

Mission

We serve students and industry through educational excellence and the discovery, advancement, and application of knowledge in science, technology, engineering and mathematics.

Vision

Highly desirable graduates and solutions for a resilient high-tech economy

Strategic Plan Priorities

At Poly, the strategic planning process looks at four elements associated with an organization: positioning, priorities, payment, and performance. Broadly, these can be defined as follows:

- Growth— To drive comprehensive growth at Florida Poly via multifaceted strategies that enhance academic excellence, expand research capabilities, and strengthen community and industry partnerships.
- Resource Development— To advance Florida Poly's mission by strategically developing and leveraging institutional resources, including financial, technological, and human capital, to enhance academic programs, foster research innovation, and support community engagement.
- Academic & Industry Collaborative Partnerships— Establish and foster productive relationships with industry partners and academic institutions and, if necessary, develop a strategy to acquire property and/or develop current property to assist in the development of those partnerships.

Many of these priorities and goals align well with the University's Accountability Plan for the Board of Governors of the State University System of Florida. The University's Accountability Plan for the BOG sets out specific metrics related to performance-based funding as well as other institutional processes and attributes.

Each priority within the strategic plan is supported by multiple goals and initiatives that provide broad direction for operationalization. Annually, an **operational plan** is developed based on progress toward accomplishing the tasks, achieving the goals, and advancing the priorities.

Annual and Periodic Assessment for Academic Programs

Academic Programs undergo both annual assessment and periodic program review. This means that for all baccalaureate programs, faculty must develop Academic Learning Compacts that identify, at a minimum, the expected core student learning outcomes for program graduates in the areas of

- Content/discipline knowledge and skills
- Communication skills
- Critical thinking skills

All program assessment plans include student learning outcomes that align with, or directly address, these core competencies.

Program assessment includes establishing outcomes for learning that graduates must be able to demonstrate upon completion of the program. These outcomes are assessed throughout the program to provide indications of how well the program is supporting student learning toward these ends. Programs report key results on program learning outcomes at the end of each academic year.

Periodically, academic programs engage in a more in-depth self-study process. This is typical of programs with professional accreditation, but for those not accredited by a professional agency (e.g., ABET), Florida Poly requires a 6-year self-study process for each academic program.

Further information about this assessment type is available in the Academic Program Assessment section of this manual.

Annual Assessment for Administrative Units

As you can see, IE is a multi-layered, complex process that affects all aspects of an institution. While a precise calendar of IE planning and evaluation events shifts over time, annually, it typically begins and ends on July 1 and June 30th, respectively. Nevertheless, the process includes the following:

1. Planning—typically a winter process (Dec – Feb 15)
2. Budgeting—spring (Jan – March)
3. End-of-Year Assessment—July – September (final Sep 30th, but earlier in reaffirmation years).

The year-end report covers activities and the data collected from the previous academic year. The subsequent planning phase looks at results from the prior year(s), as well as any information from the current year, to determine budgeting for the next academic year. In an ideal world, we would finish a full cycle, then plan and budget, then receive funds, then start the new cycle. However, the State University System budget cycle requires that by late spring, units place their institutional request for operating funds for the upcoming academic year. So, while a unit is currently undergoing annual assessment they are also looking ahead to determine budgetary needs for the next cycle.

Year-end assessment Reports reflect the results, or outcomes, of a few critical assessments that are an approximate culmination of a range of day-to-day operational decisions within a specified timeframe (typically an academic year). What makes these reports more meaningful is the analysis that reflects actions taken, use of results, and plans for improvement. Accreditors care mostly whether we demonstrate a systemic process that focuses on plans for improvement.

Further information about this assessment type is available in the Administrative Unit Assessment section of this manual.

Academic Program Assessment

Figure 2. Important Lab Results

Academic Program Assessment Defined

From an institutional effectiveness (IE) and accreditation standpoint, when we talk about academic program assessment, we mean the following: any degree-granting program, certificate program, or other academic program that accounts for a substantial part of a student's curriculum, such as general education and core major curriculum. Programs such as concentrations and minors are also assessed, but usually within the context of a larger credential-granting program or broader University initiative. Non-credit programs are usually assessed as part of an administrative unit's objectives.

There are really two major types of program assessment: annual program learning outcomes assessment and periodic program review.

Annual program assessment involves assessing program learning outcomes at the course level on a regular (semester) basis. Each term, courses with learning outcomes that align to program-level outcomes administer and collect assessment data and report that data to a departmental assessment coordinator and the Office of Institutional Research & Effectiveness. Results and evidence are compiled into reports that program faculty review on an annual basis and use for making decisions about instructional methods, curricular needs, resources, or other facets of the program that pertain to student learning. In some cases, all program outcomes can be **assessed** and **evaluated** annually. In others, all program outcomes are assessed whenever relevant support courses are taught but only a portion of outcomes are evaluated each year. The remaining program outcomes are evaluated within at most a 3-year cycle. Note the use here of two critical terms as it becomes important throughout this document and in the way we think about and discuss program assessment:

- **Assessment,** provisionally, means the administration of a tool/method for gathering information on student learning, the collection of that information, and the reporting of it.
- **Evaluation** refers to the process of reviewing assessment results and making changes for the purpose of continuous improvement. It is usually done among multiple program faculty and sometimes external stakeholders. Evaluation is where the results of assessment inform decision- making about how to improve the program.

Program Review is a more comprehensive self-study of a program's effectiveness. For accredited programs, this occurs on a cycle set by the accrediting agency. Assessment of student learning plays a significant and indispensable role in any program review self-study. Non-accredited programs follow an internal 6-year cycle review. A full discussion of Florida Poly's program review process is outlined later in this section of the manual.

Throughout this section, we will discuss the following elements related to academic program assessment:

- Program Description
- Program Mission
- Program Educational Objectives (PEOs)
- Program Learning Outcomes (PLOs)
- Course Outcomes (CLOs)
- Performance Indicators (PIs)
- Program Mapping
- Tools and Methods
- Rubrics
- Data Collection and Evidence
- Review Cycle & Improvement Process

Program Description

Program description or catalog description is a statement that identifies a program's discipline, the level at which it awards a credential, any special areas of focus or concentration, key aspects of the educational experience (e.g., internships, study-abroad, project-based curriculum), and so on. This description helps to define the program and clarify what it is and is not.

Program Mission Statement

While a program description *describes* the contents and features of a program, the program mission statement speaks to the program's purpose both institutionally and professionally (i.e. for the field and profession of X). The mission serves to announce to stakeholders at all levels—students, faculty, industry/employers, administration and Boards—in very broad terms the program's educational objectives, learning outcomes, and intended impact.

Program Educational Objectives (PEOs)

Program educational objectives are broad statements that describe what graduates are expected to attain within a few years of graduation. They should align with both the program and University's mission and they should be designed to address the needs of the program's stakeholders. PEOs answer the question of what knowledge, skills, and abilities our graduates need to demonstrate in their careers.

PEOs should

- Align with stakeholders' needs and institutional mission
- Be clearly defined
- Serve as targets for early career development
- Be relevant to the profession
- Achievable and realistic

Stakeholders in the program may be considered to include the following:

- Employers
- Graduate programs
- Students
- Faculty

PEOs are developed in collaboration with stakeholders who have an interest in the quality and characteristics of the program's graduates.

Assessment of PEOs is different from learning outcomes assessment. As PEOs are broad statements, they are not meant to be measurable but developed out of collaboration with stakeholders and subject to a periodic review process that takes into account the evolving needs and perspective of the program's stakeholders. Assessment, then, is of the statements themselves, not so much the outcomes or even outputs they project. Data or results related to student attainment of these objectives may be something the program's stakeholders look for, but it is not something ABET, for example, would require.

As an institution, however, Florida Poly has several student achievement metrics that include student success beyond graduation, such as job placement, salary, and so on. Therefore, as part of the development and ongoing review of PEOs, there must be a collaborative effort among program faculty and administrative staff to ensure that all stakeholders are included in the process and that the relevant questions are asked to validate the appropriateness of the objectives and the results.

Instruments and methods for assessing PEOs include the following:

- Advisory Boards typically comprised of experts in the field/industry who meet on a regular basis to review the

program (e.g., meeting minutes)
- Internship providers (e.g., assessment/surveys)
- Alumni groups (e.g., surveys, focus groups)
- Institutional and state data (e.g., salary database; national clearinghouse)
- Self-reported graduation exit survey data

Program Learning Outcomes (PLOs)

Program-level learning outcomes are statements that speak to the knowledge, skills, abilities or dispositions graduates of the program should exemplify upon completion of the program. As PEOs speak to what students do early in their career, PLOs speak to what they can do as a result of their learning from the program. PLOs in ABET-speak are typically called "Student Outcomes." For purposes of Florida Poly's programs, these terms are interchangeable, but the institutional preference is for program learning outcomes (PLOs).

While PLOs are typically expressed in a broad way that speaks to a set of related knowledge and skills within a specific area. For example, a learning "competency" our outcome might broadly address students' ability to conduct research appropriate to the discipline. Obviously, this requires a certain level of disciplinary knowledge as well as skills in research, writing, and potentially a range of other related abilities to demonstrate successfully. Thus, most PLOs require more precise supporting outcomes to help define them and outline the range of elements that must be taught in a curriculum to support successful achievement of the PLO. Programs with discipline-specific accreditation typically craft their PLOs around values expressed by the accrediting agency, which are often written inclusively to meet consensus among all members of the accreditation agency.

Developing PLOs

If a degree-granting program chooses not to adopt the PLOs of its accrediting agency, it may do so; however, it will have an additional piece of mapping to do to show how its outcomes meet those expected for all member institutions.

Programs that choose not to adopt their accreditors PLOs, or programs for which no accreditation agency exists, must develop these statements themselves.

While PEOs describe what students will be doing within a few years of degree completion, PLOs describe what they can do now (upon graduation) as a result of having persevered through the program. PLOs should speak to
- The range of knowledge graduates obtained from the program;
- The depth and breadth of technical skills graduates of the program can demonstrate; and
- The scope of abilities (cognitive/behavioral skills) that graduates display as a result of their matriculation.

"Abilities" also coincides with another term that is useful to think of when constructing learning outcomes: dispositions. **Disposition** refers to the attitude or professional demeanor of a graduate as it is appropriate to the profession. Outcomes related to dispositions are common in education and healthcare fields.

As an example of PLOs, consider the following from the Engineering Accreditation Commission of ABET, where students will demonstrate…
1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
3. an ability to communicate effectively with a range of audiences;

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions;
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

For more information on developing PLOs view this supplementary support document.

Course Learning Outcomes Assessment (CLOs)

Just as there are program-level outcomes, courses too have specific learning outcomes. The course outcomes describe the knowledge, skills, and abilities students should demonstrate upon completion of a course. Course outcomes usually build on one another in some way, best exemplified by the progress from one level of learning to the next in the expression of the outcome itself, e.g. "Identify X" requires less from the student than "Describe X." In short, course outcomes often work their way up Bloom's taxonomy. See Appendix A for a listing of popular taxonomies.

Course Objectives vs. Course Outcomes:
Course objectives are what you plan to put *into a course, e.g., to teach students about*…; learning outcomes are what students are supposed to *get out of a course.* (See Appendix B)

Figure 3. Course Objectives vs. Outcomes

As stated, course outcomes relate to course content and do not necessarily align in a clear, measurable way with program outcomes. Therefore, assessing course outcomes does not necessarily translate to meaningful program assessment. Course assessment is, however, a strongly recommended practice as it informs a teacher's practice and the impact of a range of pedagogical choices on one's own students. Therefore, Florida Poly strongly encourages that faculty engage in course-level assessment each term. In some cases, this assessment may be required by the program or may be on a schedule or cycle where X course is assessed every fall term, but not in its off-sequence offering. At the very least, it is recommended that faculty engage in a Course Review (see Appendix C) that serves as a reflection of practice. These reviews have value for the program but also value for the individual practitioner and can form a meaningful part of a faculty member's teaching portfolio.

As suggested, it is also good practice to engage in course assessment each term (see Appendix D), but in some cases, that may not be necessary. However, in the following cases, course assessment is highly recommended:

- New courses
- Courses that have undergone significant revision
- Courses with persistent problems
- Gateway courses

In some cases, a course outcome may align directly with a program outcome, such that the assessment of the course outcome functions equally well as assessment for a program outcome. In these cases, it may work that only one or

two course outcomes are assessed each term with other outcomes assessed on a more cyclical basis.

Regardless of whether you are developing assessments for program or course outcomes, the student learning outcomes statements should be expressed as "**performance indicators**." Course outcomes are an ideal place to use as performance indicators for program-level learning outcomes, especially where program learning outcomes are not phrased in an especially measurable way.

Performance Indicators (PIs)

Performance Indicators are concrete, measurable performances students must demonstrate as indicators of achievement of the outcome. The *purpose of a performance indicator is that it is a measure of a student's performance as it relates to a program learning outcome*.

As stated, performance indicators are specific, concrete actions that students should be able to perform as a result of their learning.

Performance indicators are a consideration of two elements:

Action Verb + Content Referent

The action verb articulates the depth to which the student should demonstrate the performance. The content referent is the focus of instruction.

Consider the following example:

- Outcome: students will be able to conduct an experiment and interpret data.

Performance Indicators—Students will demonstrate the ability to:

- Follow the design of an experiment plan (knowledge);
- Acquire data on appropriate variables (applications);
- Compare experimental results to appropriate theoretical models (analysis); and
- Offer explanation of observed differences between model and experiment (evaluation).

Performance indicators rigorously define the specific actions that demonstrate outcome achievement. They provide a clear foundation for implementation in the classroom and clearly communicate to different instructors of the same course. Furthermore, they make expectations explicit to students, which is sound pedagogy.

Program Mapping

Critical to program coherence and effectiveness is the task of mapping. This is the process of showing how curriculum, objectives, outcomes, course-level assessments, and other assessments integrate with one another to show a comprehensive, coherent program of learning and evaluation. Depending on the nature of the program, several different maps may be required to provide a complete picture.

Sample Curriculum Map Requirements

Table 1. Curriculum Map Requirements

ABET Programs using ABET Student Outcomes (SOs)	ABET Programs NOT using ABET Student Outcomes (SOs)

Map of PEOs to PLOs Map of curriculum (courses) to PLOs	1. Map of PEOs to PLOs 2. Map of PLOs to ABET 1-6 Outcomes 3. Map of PLOs to Curriculum 4. Map of 1-6 to PEOs 5. Map of 1-6 to Curriculum (These can be consolidated into fewer "maps" for presentation, but the point is to cover all the permutations)

Table 2. Curriculum Map Requirements-Non-ABET

Non-ABET Programs
Map of PEOs to PLOs Map of curriculum (courses) to PLOs

Sample PEO to PLO Map

Table 3. Sample PEO to PLO Map

Program Learning Outcomes align With Educational Objectives as Described in this table. (adjust as needed)	**PEO 1** Hold a leadership position in their company.	**PEO 2**	**PEO 3**	**PEO 4**
Critical Thinking				
Quantitative				
Project Management				
Team work	y			
Communication				

Sample Curriculum Map (Courses to PLOs)

Table 4. Sample Curriculum Map (Courses to PLOs)

Course Code and Title • Color code each concentration • Identify capstone • Identify whether course introduces, reinforces, or assesses (I,R,A) a program outcome	**PLO 1**	**PLO 2**	**PLO 2**	**PLO 4**	**PLO 5**	**Credit Hours**
IDS 1380 Intro to STEM	I			I		

The third layer of this map is reflected in the assessment plan. The assessment plan illustrates the relationship between course outcomes (performance indicators) and the program learning outcomes. It sets the assessment methodology, performance expectation, and any notes related to administration of the assessment. The assessment report reflects these items (except administration notes) and includes actual results, analysis, and action plans for improvement.

Program Learning Outcome 1				
*Program Learning Outcome:			Cycle Year: Choose an item.	
*Course	*Assessment Tool	*Performance Expectation	*Met/Not Met	*Results
*Analysis & Findings:				
*Action Plan:				

Figure 4. Academic Assessment Report Form Template

Tools and Methods

Once the higher-level aspects of an assessment project have been determined (i.e. objectives, outcomes, CLOs or PIs), there comes the task of determining the tool and method for assessing student performance and the measure for determining success.

When we talk about assessment tools and methods, we are referring to three things:

1. The *assignment*/student performance activity;
2. The *instrument* used for evaluation; and
3. The *criteria* by which it evaluates that assignment/performance.

In this section, we will look at several tools and methods for assessing student learning. In many cases, the best tool for the job is a rubric that defines student performance and established levels of accomplishment. Rubrics can be constructed that will support the assessment of most any student performance (assignment) and offer the ability to establish clear expectations for the quality of work as well as create consistency in evaluation across program faculty. Certainly, rubrics are not always appropriate ways to measure student performance, but they are versatile tools that, when constructed well, can yield a wealth of information about student learning and inform good teaching decisions.

Rubrics Explained

Rubrics are a way of explicitly stating the expectations for student performance. They may lead to a grade or be part of the grading process, but they are more specific, detailed, and disaggregated by specific skill than a grade. A grade is a holistic assessment of a student's work, whereas a rubric is more analytic (note: rubrics can be holistic, too!).

For our purposes, analytic rubrics are the best tool for delineating performance indicators that support outcomes for program-level assessment. In addition to detailing the key performance indicators upon which students will be evaluated, a rubric provides indicators of level of performance and descriptions of each level of performance and what is to be expected.

A rubric is as much an assessment tool as it is an instructional aid. As a document that delineates levels of performance, students are able to understand what they are doing well and what they need to improve upon.

In summary, a rubric is

- A tool to score student performance in an assessment environment (e.g., oral presentation, research report, and so on);
- Can be used for both formative (beginning or middle) and summative (final) assessment;
- Defines expectations, particularly useful for process and abstract concepts;
- Provides a common language to help faculty and students talk about expected learning; and
- Increases reliability of assessment across multiple raters.

Example Rubric

Outcome: students will be able to conduct an experiment and interpret data.

Table 5. Sample Rubric

Levels of Performance → Indicators	Unsatisfactory	Developing	Satisfactory	Exemplary
Follow the design of an experiment plan (knowledge)	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator
Acquire data on appropriate variables (applications)	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator
Compare experimental results to appropriate theoretical models (analysis)	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator
Offer explanation of observed differences between model and experiment (evaluation)	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator	These boxes explain what constitutes this performance level for the indicator

Two Types: Holistic and Analytic

There are two basic types of rubrics: holistic and analytic. Holistic rubrics are used to make judgments based on overall impressions, while analytic rubrics enable the scorer to assess specific aspects of a performance.

Analytic Rubrics

The above example is an analytic rubric. It breaks out the evaluation by descriptor enabling the assessor and the student to drill down to what precisely needs improvement. In the example rubric above, each category of

performance levels would include multiple descriptors.

Generic or Task-Specific Rubric

Rubrics can be generic. For example, a rubric that evaluates oral communication/presentations may be essentially the same regardless of what level of student or student performance the rubric is applied to. A good example of this are the AAC&U VALUE Rubrics. Sometimes, however, rubrics are task-specific, such as operating a piece of equipment in the correct sequence to prevent overheating. The best choice is the rubric that most appropriately assesses what you want to know and that give students a clear sense of how they can improve. Generic rubrics are excellent for cognitive skill development, whereas a task-oriented rubric may be more appropriate for demonstration of content knowledge.

Performance Levels

So how many is level within a rubric are enough? More than one, obviously. Three to five is most common, though three may not delineate enough and five may tempt one to think too much in terms of grades rather than the details of the assessment. In any case, too many levels makes inter-rater reliability extremely unlikely, and at that point your whole foundation for assessment is compromised.

Developing Rubrics

Here are a few considerations for developing rubrics:

- Be clear about how it will be used, (i.e., program assessment or individual student assessment);
- Decide on Analytic or Holistic; analytic tend to provide better information for program improvement;
- Student artifacts can be used as a guide in developing rubrics;
- When describing performance levels, start with the extremes and work your way in;
- Test your rubrics; and
- Know that rubrics are iterative; one aspect of continuous improvement is improving your assessment, including your tools.

Common Assessment Tools

The following subsections provide an overview on the more commonly used tools in assessment. Included are examples of how the methods, performance expectations and reporting sections can be drafted for annual assessment reports.

Constructed Response - Rubric Scored Assessment

This could be an essay or research paper, short answer questions on an exam, or any open-ended question that requires students to draw on knowledge and skill to respond to a problem. A common example here at Florida Poly is to ask students to evaluate a case study.

Constructed response is best assessed with a rubric. This is a grid with criteria listed vertically and expected level of performance listed horizontally. The performance level is typically expressed as either a range of points, or some kind of Likert scale (e.g., 1-5).

Method: For purposes of assessment, not every criterion on the rubric necessarily pertains to the PLO being assessed. Thus, the whole rubric may be used to determine a student's grade for the assignment, but only one row (e.g., Criterion 1) might be relevant to the assessment of the PLO. In these cases, it could be written as: Student will be assessed using performance from Criterion 1 on the rubric.

Performance expectation: It could be written as: 70% of students will have a final score of (satisfactory) or better out of 5pt scale for Criterion 1 on the rubric.

Reporting: The results would show the actual number/percentage of students who met or exceeded the performance expectations you established for the assessment. The results could be written as: 75% of students (n=30; out of 40) met the performance expectation with a final score of 3pts (satisfactory) or better out of 5pt scale for Criterion 1 on the rubric.

Selected Response/Multiple Choice or Embedded Questions on Exam or Quiz

When you give a quiz or exam that covers a broader range of knowledge and skills than just what the outcome specifies, **you must identify the specific questions on that instrument that aligns to the outcome**. Your assessment is based not on the students' scores on the exam or quiz, but on the students' scores on the specific items that align with the outcome being measured. In terms of reporting, your assessment method is embedded selected response questions on an exam/quiz.

Method: The subset of questions that directly tie back to the PLO being assessed. It could be written as: Student will be assessed using questions 3, 6, 7, 9, 12, and 20 on the exam.

Performance expectation: It could be written as: 75% of students will score an average of at least 75% of the embedded response questions correctly.

Reporting: The results would show the actual number/percentage of students who met or exceeded the performance expectations you established for the assessment. The results could be reported as: 88% of students (n=7; out of 8) met the performance expectation by scoring at least a 75% average on the embedded response questions.

Selected Response/Multiple Choice – Holistic Quiz Aligned with Outcome

In some circumstances, you may develop a quiz where all the questions align with a specific course outcome. A good example is a definitions quiz, where the outcome might be something like "students will demonstrate knowledge of the terms of the discipline." The quiz requires students to define each disciplinary term. In such cases, the whole score may be used to demonstrate attainment of the outcome.

Method: It could be written as: Students will be assessed using all the questions on the identified quiz.

Performance expectation: It could be written as: 80% of students will score at least 70% on the quiz.

Reporting: The results would show the actual number/percentage of students who met or exceeded the performance expectations you established for the assessment. The results could be written as: 91% of students (n=31; out of 34) met the performance expectation by scoring at least 70% on the quiz.

Pre-Test/Post-Test

This is where you administer a test or quiz early in the term, usually not for a grade, but to ascertain students' knowledge of the subject. The same test is administered again near the end of the term (where it may be part of the grade), and the growth in learning is measured. In this case, often the criteria will reflect the expected change from pre/post-test rather than an overall achievement level, although both types of criteria may be used.

Method: It could be written in one of two ways:
For example, the performance expectation for a pre/post-test could be written in terms of growth or as an absolute threshold for achievement:

- Students will be assessed using the difference in scores between the pre/post-test administrations.
- Students will be accessed using all questions on the post-test.

Performance expectation: It could be written in one of two ways:

- 80% of students' post-test scores will show at least a 20% improvement over their pre-test score.
- 80% of students will achieve a score of 75% or better on the post-test.

Reporting: The results would show the actual number/percentage of students who met or exceeded the performance expectations you established for the assessment. It could be written in one of two ways:

- 90% of students (n=47; out of 52) met the performance expectation by demonstrating a 20% improvement over their pre-test score.
- 62% of students (n=32; out of 52) met the performance expectation by scoring a score of 75% or better on the post-test.

Project-Based Assessment

An individual or team project deliverable is best assessed by use of a rubric, which include criteria that align with the course (or program) outcomes and include unique course elements, if applicable. If you are assessing the work of the team, then the criteria and results are reported based on team performance (e.g., proficiency on the presentation skills portion of the rubric). Similarly, a project may be scored on an individual basis. If grading on an individual basis, refer to the Constructed Response - Rubric Scored Assessment section of this manual for examples.

Method: It could be written as: Students will be assessed using performance presentation skills portion of the rubric.

Performance expectation: It could be written as: 85% of students will have a final score of 3pts (satisfactory) or better out of 5pt scale for presentation skills section of the rubric.

Reporting: The results would show the actual number/percentage of students who met or exceeded the performance expectations you established for the assessment. The results could be written as: 79% of students (n=34; out of 43) met the performance expectation with a final score of 3 (satisfactory) or better out of 5pt scale for the presentation skills section on the rubric.

Progressive Skills/Partial Points Assessment

This type of assessment requires students to complete a project or a problem in a specific sequence, each building on the previous in level of complexity. The success, or correctness, of each level is dependent, to varying degrees, on the correctness of the previous. A rubric that identifies each step in the process is used to evaluate student achievement.

Method: It could be written as: Students will be assessed using the progressive skills rubric that assesses their ability in three parts.

Performance expectation: It could be written as: 90% of students will earn 4pts or better out of the 5pt scale for parts 1 and 2 of the rubric, in addition students will earn 3pts or better out of the 5pt scale on part 3 of the rubric.

Reporting: The results would show the actual number/percentage of students who met or exceeded the performance expectations you established for the assessment. The results could be written as: 76% of students

(n=52; out of 68) met the performance expectation by earning at least 4pts (outstanding) on parts 1 and 2 of the rubric and 3 pts (satisfactory) on part 3 of the rubric.

Data Collection, Reporting Results, and Evidence

NOTE: The subheadings in this section correspond to the subheadings in the previous section.

Constructed Response

The table below shows how one might report results of an analytical rubric. This affords several opportunities to examine different data points to obtain a picture of both student achievement and places where instructional changes may be warranted. By drilling down to this level, we can see how each student performs holistically on the assessment giving us a sense of the level of student achievement with respect to the benchmark expectation that 75% would perform at least at the 2.5 level average for all criteria. We also get a class average, which exceeds the expected proficiency level, mostly because of a few high scorers. We also have an analytic view: the item analysis enables us to see what content (criterion) students has the most difficulty with, which perhaps affords us the most useful information from an instructional standpoint.

Table 6. Reporting Constructed Response Results by Student

Name	Criterion 1	Criterion 2	Criterion 3	Avg Score of Each Student
Student 1	3	2	4	3
Student 2	1	3	3	2.3
Student 3	2	3	3	2.6
Student 4	4	4	4	4
Student 5	2	1	2	1.6
Student 6	3	3	2	2.6
Average score on each individual criterion:	2.5	2.67	3.0	2.68 Class Average
% of students averaging 2.5 or better = 67%				

You can also create a summary table showing the number of students who scored at each level on the rubric criteria.

Table 7. Reporting Results per Achievement Level

Rubric	Below (1)	Approaching (2)	Meets (3)	Exceeds (4)
Formulate a thesis.	6 students	8 students	14 students	3 students

Include this type of detail as an attachment to your results report.

Additional evidence in support of this assessment would be examples of student work at each level. So, an example of a 4, 3, 2, and 1 score for each criterion (12 samples total) from each section of the course taught. The value of this type of documentation is to achieve greater inter-rater reliability in subsequent administrations of the assessment across multiple sections. A faculty review of several examples with their original scores (and re-scored in a workshop) helps to ensure consistency of academic standards and to validate the instruments. It can also be a good time to review teaching methods and materials.

Selected Response-Embedded Qs

To evidence this type of assessment, a chart showing a summary of student results by question could be used:

Table 8. Reporting Embedded Question Results by Question

Outcome: properties of life and how it has evolved	
Text/number of embedded question(s)	*#/% correct*
Question 1	18 (90%)
Question 2	17 (85%)
Question 3	5 (25%)
Question 4	18 (90%)
Question 5	19 (95%)

Keeping results with a growing test-bank of questions will provide you with useful evidence for study in both test design and for course review and improvement.

For a deeper understanding of performance, data could be tracked not only by question but also by student. Providing an overview of individual question performance as well as student performance.

Table 9. Reporting Embedded Question Results by Student & Question

	Student 1	Student 2	Student 3	Student 4	Student 5	Student 6	Student 7	Student 8	? Avg
Question 3	100%	100%	0%	100%	100%	0%	100%	100%	**75%**
Question 8	0%	100%	100%	100%	100%	0%	0%	100%	**63%**
Question 11	100%	0%	100%	100%	0%	0%	100%	0%	**50%**
Question 12	100%	100%	100%	100%	0%	0%	100%	100%	**75%**
Question 16	100%	100%	0%	100%	100%	0%	0%	100%	**63%**
Question 19	0%	100%	100%	100%	100%	0%	100%	0%	**63%**
Question 20	100%	100%	100%	100%	100%	100%	100%	100%	**100%**
Question 22	100%	100%	100%	100%	100%	100%	100%	100%	**100%**
Student Avg	**75%**	**88%**	**75%**	**100%**	**75%**	**25%**	**75%**	**75%**	**73%**
≥75% percent correct	**YES**	**YES**	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**	

88% of students (n=7; out of 8) got 75% or more of the embedded test questions correct

Selected Response-Holistic

You can keep the same kind of data for this type of quiz/exam as you would for a selected response. The key difference is that when reporting, you are looking at the students' results for the entire test or quiz, rather than on specific questions. Maintaining data on specific questions, however, is extremely useful especially if they are structured differently as in the example above. So, for that example, one might evidence the report with something like this:

Table 10. Reporting Selected Response-Holistic Results

Student	Quiz (20 question total)	Question	# of student who answered correctly (out of 35)
Student 1	11	Actual Question 1—identify	33
Student 2	13	Actual Question 2—identify	34
Student 3	19	Actual Question 3—identify	31
Student 4	20	Actual Question 4—apply	22
Student 5	17	Actual Question 5—apply	19
Student 6	20	Actual Question 6—apply	28

Class Average	*16.6 (83%)*	*Average # of students answering ID*	*32.6 (93%)*	*Average # of students answering Apply*	*23 (66%)*

		questions correctly:		*questions correctly:*	

Note: this is made up—obviously, if there were 35 students the chart would be longer. But you get the idea.

Pre-Test / Post-Test

This one can get nicely complicated but can show you an awful lot of data. For simplicity's sake, let us say we have four embedded questions on the pre/post-test. We might keep a chart similar to the one in the previous example for both the pre-test and the post-test. Then, we could do some additional analysis.

Table 11. Reporting Pre & Post-Test Results

Student	Pre-Test (4 Questions) Answered Correctly	Post-Test (4 Questions) Answered Correctly	Question	Pre-Test # of student who answered correctly (out of 6)	Post-Test # of student who answered correctly (out of 6)
Student 1	1	4	Actual Question 1	4	6
Student 2	2	4	Actual Question 2	3	6
Student 3	2	2	Actual Question 3	1	4
Student 4	1	3	Actual Question 4	1	4
Student 5	1	3			
Student 6	2	4			
AVERAGE	1.5	3.33			

Of course, as evidence goes, you would supply something like this chart and copies of the actual pre- and post-tests that students submitted. Now for a story: Once there was a History Department that expected 75% of its students to answer 75% of the embedded questions on the exam correctly. Students never did, but maybe 28% of them would. Therefore, the faculty started using a pre- and post-test. They still set a goal of 75/75, but now they could measure the differential from incoming to outgoing and get a better reflection of the impact their instruction had on acquisition of that key knowledge. They set a secondary criterion that students would show a 25% improvement from pre to post-test. Even though the aspirational achievement level was not often met, the improvement differential was usually met. This was an intro history course at an open-admissions institution.

Project-Based Assessment

Rubric criterion associated with outcome reported:

Table 12. Reporting Project Results

Criterion / Level	1	2	3	4	5
Video Project explained the influence of philosophy, religion, socio-political organization on different art forms.	0 teams	0 teams	4 teams	1 team	1 team

Additional evidence would include a copy of the full rubric filled out for each team. If available, artifacts such as a video recording of a team's presentation or their handout materials might also be included or kept on file by the instructor.

Progressive Skills/Partial Points Assessment

In this type of assessment, students may be given some credit for a portion of an answer. The expected achievement may be X% score at a level 3 or higher on the specific skill or problem-type.

Table 13. Reporting Results for Progressive Skills

Rubric ***(number of points)***	**Number of students achieved**
1. Draw a circuit diagram including electrical components at different times (0-10 pts.)	2
2. Attempted with some transient state analysis aspects including initial conditions of the electrical network (11-18 pts.)	7
3. Attempted with most transient state analysis aspects including the differential equation of the electrical network (19-23 pts.)	15
4. Aspects of the correct work is shown including the damping ratio and angular frequency of the electrical network (24-30 pts.)	15
5. Most of the aspects of the correct work is shown (31-35 pts.)	4

Note*: this rubric works as both an assessment tool and a grading tool because points are associated with each level. Thus, you can report your assessment in simple term—e.g., achieve a 3 or higher on rubric; but distribute the points as they fit with the exam or course in which the assessment is administered.*

Evidence, again

Evidence comes in two forms for our purposes here at Florida Poly: raw results and student artifacts.

Raw Results

This evidence is the material used to arrive at the result that is reported for the assessment. It often also includes the instrument for assessment. So, as examples in the previous section show, if your result reported is 70% of students (7/10) achieved the expectation, then your data would show the individual scores **(names redacted).** As it relates to a rubric, the evidence should show the number and percentages at each level, for each descriptor, as outlined on the rubric. Again, the previous section illustrates much of this in different ways.

Student Artifacts

There is an ongoing question about how much student work should be saved for assessment. The answer is that it depends. Put another way, you must first answer why you are keeping student artifacts in the first place. If it is because your accreditor wants to see them, then that is one thing, but not very meaningful. If, on the other hand, your answer is that when we evaluate assessment results, we like to see evidence of student work to formulate a more complete understanding of the learning that is or is not taking place, then you're operating in the right spirit of this matter. However, let's spare you the theory for the moment and give you a straight answer.

It is recommended to keep enough evidence to demonstrate that you have applied your assessment criteria accurately: typically, this comes in the form of a high, medium, and low result, and sometimes, enough that makes up a small sample of the course, as low as 3%.

If, as a program, you collaborate and agree that in all cases, you will require that students submit assessments in CANVAS and that faculty grade assessments in CANVAS, then you will have all the evidence you need in the repository. As an instructor, you can just report your results and provide your raw data each term to your department's assessment coordinator or department chair. When the time comes around for the program to evaluate the PLO, they can return to the Canvas archive to retrieve examples. Your department, however, may require that you include this evidence in your course folder (more detail below).

Academic Assessment Review Cycle and Improvement Process

At the beginning of each three-year cycle, programs must determine how they will structure their review activities. Two approaches are available:

- **Single Review** – assessing all Program Learning Outcomes (PLOs) within the cycle.
- **Staggered Review** – assessing selected PLOs at different points across the cycle.

A ***single review*** may be preferred for ABET-accredited programs, as it ensures that two years of data are collected for all PLOs within the same time frame. This approach may also be advantageous for programs with a smaller number of outcomes, where reviewing all PLOs simultaneously is more manageable.

A ***staggered review*** may be better suited for programs that wish to alternate the types of activities conducted across PLOs. In this model, every PLO is addressed within the three-year period, but planning, assessment, and evaluation activities are distributed over time. This allows faculty to focus on a smaller set of outcomes in greater depth, while balancing workload across the cycle.

Regardless of the method selected, the review process remains cyclical, supporting evaluation based on longitudinal data. This approach enables faculty to identify trends, make evidence-based improvements, and plan for future assessments. The table below illustrates how review activities are scheduled under each approach.

	3 YEAR CYCLE		
	AY2425	AY2526	AY2627
ALL PLOs ON SAME CYCLE			
ALL PLOs	**YR 1 PLANNING:** -Review curricular elements -Report on review activities -Create action plan for next 2 years	**YR 2 ASSESSING:** -Collect data -Report on 1st yr data -Continue/modify current action plan	**YR 3 ASSESSING & EVALUATING:** -Collect data -Evaluate the 2 years of data -Report on current cycle & recommend next steps
STAGGERING PLOs INTO TWO GROUPS			
PLOs 1-3	**YR 1 PLANNING:** -Review curricular elements -Report on review activities -Create action plan for next 2 years	**YR 2 ASSESSING:** -Collect data -Report on 1st yr data -Continue/modify current action plan	**YR 3 ASSESSING & EVALUATING:** -Collect data -Evaluate the 2 years of data -Report on current cycle & recommend next steps
PLOs 4-6		**YR 1 PLANNING:** -Review curricular elements -Report on review activities -Create action plan for next 2 years	**YR 2 ASSESSING:** -Collect data -Report on 1st yr data -Continue/modify current action plan
STAGGERING PLOs INTO THREE GROUPS			
PLO 1&2	**YR 1 PLANNING:** -Review curricular elements -Report on review activities -Create action plan for next 2 years	**YR 2 ASSESSING:** -Collect data -Report on 1st yr data -Continue/modify current action plan	**YR 3 ASSESSING & EVALUATING:** -Collect data -Evaluate the 2 years of data -Report on current cycle & recommend next steps
PLO 3&4		**YR 1 PLANNING:** -Review curricular elements -Report on review activities -Create action plan for next 2 years	**YR 2 ASSESSING:** -Collect data -Report on 1st yr data -Continue/modify current action plan
PLO 5&6			**YR 1 PLANNING:** -Review curricular elements -Report on review activities -Create action plan for next 2 years

Figure 5. Academic Program Assessment 3-Year Cycle Review Options

Understanding Cycle Activities

There are three parts to the assessment cycle:

Year 1 – Planning: This step is a critical part of the assessment cycle. Faculty will review and update the wording of Program Learning Outcomes (PLOs) and revise curriculum maps as needed. Together, they will identify key

questions to be addressed and determine which metrics should be reviewed to evaluate whether adequate learning is taking place. Courses for assessment will be selected, and performance expectations (i.e., benchmarks, metrics, and competency levels) will be established. Finally, faculty will document their review activities and develop an action plan to guide improvements over the next two years. These details are entered into Xitracs, and all supporting documentation are uploaded to the Continuous Improvement and Accreditation Teams space.

Year 2 – Assessing: Faculty will collect the assessment data identified in the action plan. Data should be compiled and documented at the end of each semester. At the close of the academic year, faculty will summarize results, identify any necessary revisions to the action plan based on findings, and record these details in Xitracs. All supporting documentation are uploaded to the Continuous Improvement and Accreditation Teams space.

Year 3 – Assessing & Evaluating: Faculty will continue to collect the assessment data identified in the current action plan. Data should be compiled and documented at the end of each semester. At the close of the academic year faculty will summarize and report results for the last two years, reflect on the cycle activities, make recommendations for an action plan for the next three-year cycle, and record these details in Xitracs. All supporting documentation are uploaded to the Continuous Improvement and Accreditation Teams space.

YEAR 1 - PLANNING YEAR		
START OF THE YEAR	**DURING THE YEAR**	**END OF THE YEAR**
-Identify outcome(s) to review this cycle -If an outcome(s) needs to be modified initiate UCC approval processes -Review/update curriculum map based on current assessments and course catalog offerings -Identify key faculty to collaborate on assessment cycle activities & setup touchpoint meetings	-Review suggested actions from the prior review cycle and define your assessment project -Outline any interventions that will be implemented -Identify relevant courses from which you will gather assessment data -Determine which assessment(s) will be used -Establish performance expectations -Document your planning activities and compile evidence of the review process	-Develop an action plan to be implemented over the next two years -Upload all review-related activities and supporting materials to SharePoint -Complete all required fields within the program module in Xitracs
YEAR 2 - ASSESSING YEAR		
START OF THE YEAR	**DURING THE YEAR**	**END OF THE YEAR**
-Connect with faculty involved with the action plan -Initiate any interventions from action plan	- Collect data using the methods specified in the action plan - Analyze and summarize the results, noting if expectations were achieved and the relevant data distribution - Upload supporting evidence and documentation to the designated SharePoint folder	-Analyze the data -Submit a summary report outlining expectation details from your first year of data -Submit a plan to collect more data; note any modifications that need to be made for second year based on first year experiences -Upload evidence of outcomes to SharePoint -Complete all required fields within the program module in Xitracs
YEAR 3 - ASSESSING AND EVALUATING YEAR		
START OF THE YEAR	**DURING THE YEAR**	**END OF THE YEAR**
-Connect with faculty involved with the action plan -Initiate any interventions from action plan	- Collect data using the methods specified in the action plan - Analyze and summarize the results, noting if expectations were achieved and the relevant data distribution - Upload supporting evidence and documentation to the designated SharePoint folder	-Analyze the data -Submit a summary report outlining expectation details from the two years of data collection -Evaluate and reflect on the current action plan and make recommendations for the upcoming 3-year cycle -Upload evidence of outcomes to SharePoint -Complete all required fields within the program module in Xitracs

Figure 6. Academic Assessment Cycle Responsibilities by Year

Faculty and Program Responsibilities for Assessment and Evaluation

Program quality and integrity is the responsibility of all teaching faculty; therefore, it is the responsibility of program faculty to be familiar with the program's PEOs, PLOs, and key courses where outcomes align to PLOs. As mentioned above, each faculty member is responsible for some level of assessment of his or her courses. This information is used to build course folders to support program longevity and "program-memory." Contents of these folders may be evaluated by a departmental committee whose task is to determine how effective the course is in delivering on

its outcomes as well as program outcomes (see Appendix E).

Assessment & Evaluation Defined

Recall from earlier in this document (p.13) the following definitions:

- **Assessment,** provisionally, means the administration of a tool/method for gathering information on student learning, the collection of that information, and the reporting of it.
- **Evaluation** refers to the process of reviewing assessment results and making changes for the purpose of continuous improvement. It is usually done among multiple program faculty and sometimes external stakeholders. Evaluation is where the results of assessment inform decision- making about how to improve the program.

Course Folders: Assessment and Evaluation

As a best practice and a requirement for ABET-accredited (and hopeful) programs, the maintenance of course folders is highly recommended. A course folder is the archival evidence of how a course was designed, delivered, assessed, and includes examples of how students performed. An ideal course folder will enable a colleague to examine it and have a complete idea of what went on in each course in a given semester. From a program quality and control standpoint, the course folder is both a record of course delivery and a subject of evaluation for continuous improvement. A typical responsibility associated with the course folder is the assessment of course learning outcomes or, at a minimum, a course review. While the precise contents of the course folder may vary, in general it should include the following:

- Course syllabus
- Assignments, exams, quizzes
- Evidence of student achievement of each CLO (student artifacts: high, middle, low as evidence)
- Student work (additional student artifacts)
- CLO assessment evidence (raw data)
- Handouts and other learning tools

Department chairs, in consultation with the faculty and, if present, a departmental curriculum/ assessment committee will determine the precise responsibilities for assessment and course folder completion in line with the program's overall assessment plan and best practices. Responsibilities may change from course to course, term to term, depending on the assessment cycle and critical program needs, but in general, faculty should expect to contribute to assessment and course and program evaluation on a regular basis. All documentation of these activities should be saved in a Poly file space. Consult with your department chair on the appropriate location.

Annual Program Assessment Reporting

As mentioned earlier in this section, the review cycle runs for a 3-year period. The following subsections outline the activities that should take place each year.

Year 1 in the Assessment Cycle - Planning

At the start of a new cycle, the focus is on reviewing findings from the prior cycle, analyzing current curricular improvement initiatives, and identifying potential areas for improvement and measurement. The assessment coordinator and/or faculty should:

Start of the Year Activities - Planning

Coordinator/Faculty Activities:

1. Identify the Program Learning Outcomes (PLOs) to be addressed in the new cycle.

2. Review and revise PLO language, as needed. If revisions are required, faculty consensus should be reached and the University Curriculum Committee approval process initiated.
3. Develop or update the curriculum map to ensure alignment with the selected PLOs and current course offerings. The initial creation of the curriculum map should be a collaborative process, developed with input from multiple faculty members.
4. Designate key faculty contributors who will participate in assessment activities this cycle.
5. Schedule quarterly touchpoint meetings for faculty to review progress, discuss findings, and make recommendations for action during the review year.

System Submission Activities:

6. Upload your current curriculum map to your respective folder in the Continuous Improvement and Accreditation Teams space.

During The Year Activities - Planning

During the year, the assessment coordinator and/or faculty should:

Coordinator/Faculty Activities:

1. Generate ideas for what to assess in the current cycle.
2. Document any planned interventions that will be implemented as part of the assessment project, if appropriate.
3. Identify the courses from which data will be collected to measure the project's outcomes.
4. Select the specific assessment(s) within the course(s) that will serve as data evidence.
5. Establish performance expectations (benchmarks, metrics, or competency levels) that will be used to evaluate the project's success.
6. Summarize the review activities you completed during the year.

End of the Year Activities - Planning

At the end of the year, the assessment coordinator and/or faculty should:

Coordinator/Faculty Activities:

1. Develop an action plan that outlines any activities to be implemented and the data to be collected over the next two years. Clearly explain the significance of this plan and describe how the data will be used to inform decisions and guide improvements.

System Submission Activities:

2. Upload evidence of the review process to your respective folder in the Continuous Improvement and Accreditation Teams space.
3. Enter all required fields in the program module in Xitracs.

See Appendix H for an example of a planning year report.

Year 2 in the Assessment Cycle - Assessing

At the start of the second year of the cycle, the focus is on collecting data to support the action plan. The assessment coordinator and/or faculty should:

Start of the Year Activities - Assessing

Coordinator/Faculty Activities:

1. Connect with all faculty involved in executing the action plan. Confirm that any planned interventions are actively being implemented and that a process is in place to collect the designated assessment data at the end of each semester.

During The Year Activities - Assessing

During the year, the assessment coordinator and/or faculty should:

Coordinator/Faculty Activities:

1. Collect assessment data in alignment with the procedures outlined in the action plan, ensuring that the data accurately reflects the established performance expectation(s) set by the assessment coordinator.
2. Prepare a summary of the assessment results using the same terminology and parameters as defined in the action plan. This information will be used to compile the end-of-year report in Xitracs.
    a. Clearly report how many students met the established performance expectation(s)
    b. Describe the overall distribution of results, if appropriate.
    c. Include any relevant statistical data necessary for meaningful interpretation, if appropriate.
    d. If sampling methods or partial datasets are used, provide a clear rationale detailing the sampling strategy and its justification for use.

System Submission Activities:

1. Upload evidence of the data outcomes to your respective folder in the Continuous Improvement and Accreditation Teams space at the end of each semester. This includes how many people met the performance expectation as well as the distribution of results.

End of the Year Activities - Assessing

At the end of the year, the assessment coordinator and/or faculty should:

Coordinator/Faculty Activities:

1. Aggregate and organize all data collected throughout the academic year.
2. Determine whether the established performance expectation(s) was achieved or unmet. Provide explicit data on the number of students who met the expectation(s).
3. Conduct a comprehensive analysis and provide a clear summary of the overall data findings.
4. Review the current action plan. Update it to note data collection efforts for the upcoming year, and incorporate any adjustments informed by insights and challenges from the first year of data collection.

System Submission Activities:

5. Upload evidence of the data outcomes to your respective folder in the Continuous Improvement and Accreditation Teams space.
6. Enter all required fields in the program module in Xitracs.

Year 3 in the Assessment Cycle – Assessing & Evaluating

At the start of the third year of the cycle, the focus is on collecting data and evaluating the effectiveness of the action plan. The assessment coordinator and/or faculty should:

Start of the Year Activities – Assessing & Evaluating

Coordinator/Faculty Activities:

1. Connect with all faculty involved in executing the action plan. Confirm that any planned interventions are actively being implemented and that a process is in place to collect the designated assessment data at the end of each semester.

During The Year Activities – Assessing & Evaluating

During the year, the assessment coordinator and/or faculty should:

Coordinator/Faculty Activities:

1. Collect assessment data in alignment with the procedures outlined in the action plan, ensuring that the data accurately reflects the established performance expectation(s).
2. Prepare a summary of the assessment results using the same terminology and parameters as defined in the action plan. This information will be used to compile the end-of-year report in Xitracs.
    a. Clearly report how many students met the established performance expectation(s)
    b. Describe the overall distribution of results, if appropriate.

c. Include any relevant statistical data necessary for meaningful interpretation, if appropriate.
d. If sampling methods or partial datasets are used, provide a clear rationale detailing the sampling strategy and its justification for use.

System Submission Activities:

3. Upload evidence of the data outcomes to your respective folder in the Continuous Improvement and Accreditation Teams space at the end of each semester. This includes how many people met the performance expectation as well as the distribution of results.

End of the Year Activities – Assessing & Evaluating

At the end of the year, the assessment coordinator and/or faculty should:

Coordinator/Faculty Activities:

1. Aggregate and organize all data collected throughout the academic year.
2. Determine whether the established performance expectation(s) was achieved or unmet.
3. Conduct a comprehensive analysis and provide a clear summary of the overall data findings.
4. Evaluate the current action plan using the data collected. Summarize key insights and challenges identified during this review cycle, and provide recommendations for the upcoming 3-year cycle.

System Submission Activities:

5. Upload evidence of the data outcomes to your respective folder in the Continuous Improvement and Accreditation Teams space.
6. Enter all required fields in the program module in Xitracs.

See Appendix G for an example of a Year 3 assessing and evaluating assessment report.

Quick Reference Guides for Academic Assessment

While this manual serves as a comprehensive guide to IE assessment activities, a suite of quick reference guides have been created to support the various stages of the academic assessment cycle. These guides can be found in the Continuous Improvement & Accreditation Teams space.

General Education Assessment

In addition to our academic programs, Florida Poly also engages in general education assessment.

Education Value and Purpose

The Association of American Colleges and Universities defines general education (a component of the broader idea of liberal education) as follows:

The part of a liberal education curriculum that is shared by all students, providing broad exposure to multiple disciplines and forming the basis for developing important intellectual and civic capacities. It emphasizes critical thinking and equips students with skills necessary for informed citizenship and personal development.

General education functions best when it is viewed as a program rather than a menu of courses from which students are required to choose X number of hours. As a program within a broader degree-seeking path, general education has its own purpose and outcomes that align with and enrich those of the degree path a student pursues.

So, general education serves two purposes:

1. The development of “essential intellectual, civic, and practical capacities”; and
2. Preparation for success in the student’s chosen degree program.

The General Education Program at Florida Poly

The General Education program is foundational to Florida Poly's mission to "serve students and industry through educational excellence and the discovery, advancement, and application of knowledge in science, technology, engineering and mathematics." As such, the program's mission is to prepare students for their majors and beyond. It is designed to foster a solid foundation in mathematical and scientific reasoning essential to STEM programs. At the same time, through exposure to methods of inquiry and expression in the arts, humanities, and social sciences, the program fosters intellectual curiosity and life-long learning in preparation for engagement in professional and civic life. The University recognizes that tomorrow's leaders must be technically proficient, ethically-minded, and possess effective communication skills to affect positive and lasting change in the world. Specific courses in support of the general education program can be found in the University's academic catalog, available at http://catalog.floridapoly.edu/.

Competencies, Outcomes, and Courses

The University faculty has developed student learning outcomes that support the following General Education competencies:

1. **Communication** – Students will demonstrate the ability to communicate effectively and to analyze communication critically in both oral and written mediums.
2. **Cultural Fluency** – Through study and practice in the Arts and Humanities, students will be afforded the ability to think critically through the mastering of subjects concerned with human culture, especially literature, history, art, music, and philosophy, to include selections from the Western canon.
3. **Social Science Methods** – Students will understand basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political, and economic issues.
4. **Mathematical Reasoning** – Students will develop mathematical skills that are crucial to success in all STEM fields.
5. **Scientific Method** – Students will develop the ability to critically examine and evaluate principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.

Communication

Students will demonstrate the ability to communicate effectively and to analyze communication critically in both oral and written mediums. Students who complete the communication skills requirement will be able to:

- Analyze, interpret, evaluate, and synthesize information to support an argument or conclusion.
- Choose a topic and develop it for a specific audience, purpose, and context.
- Employ the conventions of standard American English.
- Identify and apply standards of academic integrity, including the use, attribution, and documentation of source material in an appropriate style.

Cultural Fluency

Students will understand how questions are posed and how insights and creative responses to them are formulated in the Arts and Humanities. Whether through philosophical (legal, ethical), literary, artistic, or cultural studies, students who complete the ways of knowing requirement in the Arts and Humanities will be able to:

- Reflect critically on the human condition.
- Interpret and explain theories and methods behind forms of human expression.
- Consider the multidirectional impacts of the relationships between individuals, cultures, and the institutions, and technologies they create.

Social Sciences Methods

Students will understand how questions about individuals and social groups are posed and addressed through research, experimentation, and analysis in the Social and Behavioral Sciences. Students who complete the ways of knowing requirement in the Social and Behavioral Sciences will be able to:

- Apply appropriate disciplinary methods and theories to the analysis of psychological, social, cultural, political, and economic issues or problems.
- Describe how political, social, cultural, and economic institutions influence human behavior.
- Describe how individuals interact and behave in political, social, economic, and psychological environments.

Mathematical Reasoning

Students will develop mathematical skills that are crucial to success in all STEM fields. Students who complete the Mathematical Reasoning requirement will be able to:

- Demonstrate fluency in mathematical concepts.
- Interpret quantitative data to derive logical conclusions.
- Apply appropriate mathematical techniques and problem-solving strategies to produce valid results.

Scientific Method

Students will demonstrate an understanding of the scientific method and use it to explain the natural world. Students who complete the Scientific Reasoning requirement will be able to:

- Critically examine and evaluate scientific observation, hypothesis, and model construction.
- Apply appropriate scientific models and methods in problem solving.
- Use the scientific method to explain the natural world.

A Curriculum Note

Florida Poly's general education curriculum is unique in a few ways. For one, math and science start at a higher level than at most colleges or comprehensive institutions. So, from an institutional values standpoint, the question is what level of achievement is most appropriate to a polytechnic university? And where and how do we measure this achievement that best demonstrates that as an institution, we are delivering a high-quality education that produces students who perform well above average in these areas?

Another aspect of our general education curriculum, as it currently integrates with our academic programs is that it is spread out throughout the student's four years. Because we have a common freshman year program that is designed to acclimate students to foundational concepts for succeeding in Florida Poly's programs, many of the courses (humanities and social sciences) that students at other institutions would take in their freshman or sophomore year do not occur in plans of study until the junior and senior years. This is an important aspect to our technical and scientific curricula. Rather than putting these courses at the beginning, where they are something to get through, by positioning them later in the program they become a rest stop to reflect on human behavior and the impacts of the science and technology students are learning to develop.

General Education and Accreditation

The University's accrediting agency, the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) requires that its member institutions assess student achievement in the general education program. This means that the program must

- Have a general education mission statement;
- Define competencies and outcomes;
- Identify institutionally-acceptable levels of achievement for those outcomes and competencies;
- Assess outcomes through direct (course-level assessments);
- Report results; and
- Engage in continuous improvement to impact student achievement.

To this point, it has only been a requirement that institution's report student achievement, but as with degree-

granting programs, it is now incumbent upon general education programs to analyze and evaluate results and make changes for the purposes of continuous improvement.

Assessing General Education at Florida Poly

A very brief history of our very brief history: In the beginning, faculty assessed all student learning outcomes with a given general education course and reported those results to the Office of Institutional Research and Effectiveness, which reviewed the results and aligned them to the appropriate competencies in developing a general education assessment report. This report was returned to the faculty or coordinators responsible for general education for final review and comment before becoming the official mid-year or year-end report.

Faculty who had been tasked with coordinating general education undertook a mini-program review in summer 2016, which resulted in changing some of the competencies and other aspects of the assessment of the program. After reviewing results, they also decided that it was not productive to assess every learning outcome in every course, so each discipline area identified course-level outcomes that they thought aligned best with the outcomes and competencies and focused assessment on only one or two course outcomes rather than all.

Another decision that came out of this effort was that it was not necessary to assess program achievement in every course. As stated previously, our requirements for mathematics start at a much higher level than they do at most institutions because our courses must support core STEM disciplines. Thus, the standard for an acceptable level of mathematical reasoning at Florida Poly likely would be higher than at a comprehensive or non-STEM institution. For a discipline such as mathematics, the standard may be set with more focus on preparation for the degree program than for acceptable functioning in civil society. The same may be said of the natural sciences courses. Given that our mission is to graduate leaders in advanced science and technology fields, our baseline level of attainment for competency in areas of mathematics and natural sciences ought to be at a recognizably high level.

The decisions that were generated from this work group, continue to be followed in the assessment of the general education curriculum today.

Creating Balance—Proficiency vs Achievement and Institutional Standards

Agreement as to what constitutes student achievement for each outcome/competency comes down to the faculty in the discipline agreeing upon what serves as assessment, how proficiency is measured, and what stands for proficiency on the assessment. Florida Poly faculty have agreed to the following as a way of determining student achievement for general education competencies:

Proficiency refers to the score that a student must obtain on a given assessment that shows he or she has met the expectations for the outcome. This is up to the faculty in each program. Proficiency levels for calculus may be very different than they are for psychology. Thus, calibrating proficiency to the program/course/assessment is critical to creating an accurate, meaningful standard for success.

However, as an institution, we need to have some threshold for acceptable levels of proficiency. Toward that end, the faculty have agreed that a minimum **benchmark for achievement** should be 70%, where if 70% of the students assessed meet the proficiency level, then the competency is achieved successfully. Domain leads, however, have the authority to increase benchmark rigor for course assessments as they see fit.

Assessment and Improvement Cycle

The general education program follows the same three-year assessment cycle as other programs at Florida Poly. This process enables the ongoing assessment, review, and improvement of all aspects of general education, from relatively modest, or easily implementable changes, such as to textbooks, to larger, more systemic changes such as

to course offerings or to the assessment system itself (standards, methods, and so on).

Responsibilities & General Education Curriculum Map

As noted previously, responsibility for program quality and integrity rests with all faculty. At present, the faculty have elected to use the Florida Core general education curriculum courses for assessment purposes. These courses were chosen because they are among the most widely taken within the general education curriculum, and data collected from them provides a robust source for evaluating program effectiveness.

Faculty who teach other general education courses are encouraged to maintain course folders in some format and to conduct course-level assessments. These efforts contribute to the overall general education program and support the broader general education assessment plan.

General Education Curriculum Map

Courses	Credit Hours	PLO 1. Communication: Students will demonstrate the ability to communicate effectively and to analyze communication critically in both oral and written mediums.	PLO 2. Cultural Fluency: Through study and practice in the Arts and Humanities, students will be afforded the ability to think critically through the mastering of subjects concerned with human culture, especially literature, history, art,	PLO 3. Social Science Methods: Students will understand basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political, and	PLO 4. Mathematical Reasoning: Students will develop mathematical skills that are crucial to success in all STEM	PLO 5. Scientific Method: Students will develop the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the	Total
ENC 1101 English Composition 1	3	A					1
ARH 2000 Art Appreciation	3		A				1
HUM 2020 Introduction to Humanities	3		A				1
LIT 2000 Introduction to Literature	3		A				1
MUL 2010 Music Appreciation	3		A				1
PHI 2010 Introduction to Philosophy	3		A				1
AMH 2010 American History to 1877	3			A			1
AMH 2020 American History since 1877	3			A			1
ECO 2013 Principles of Macroeconomics	3			A			1
POS 2041 American Government	3			A			1
PSY 2012 General Psychology	3			A			1
MAC 2311 Analytical Geometry and Calculus 1	3				A		1
STA 2023 Statistics 1	3				A		1
BSC 1010 Biology 1	3					A	1
CHM 2045 Chemistry 1	3					A	1
PHY 2053 Physics (Algebra Based)	3					A	1
PHY 2048 Physics 1 w Calculus	3					A	1
Total:		1	5	5	2	4	17

Note: A = Course where assessment data are collected

Figure 7. General Education Curriculum Map

Academic Program Review

Academic Program Review at Florida Poly is a critical process for assessing educational effectiveness and guiding long-term institutional improvement. It centers on a rigorous self-study and internal evaluation that examines the quality, relevance, and sustainability of every academic program. The findings and recommendations that emerge from this review carry significant weight; they directly inform strategic planning, resource allocation, and ongoing quality assurance across the University.

Guiding Principles

The following principles ensure that the review process remains objective, actionable, and aligned with the University's mission:

- **Quality Assurance:** Maintains high academic standards by ensuring programs remain current with disciplinary advances, effective pedagogical practices, and evolving workforce needs.
- **Evidence-Based Analysis:** Grounds all conclusions in robust, reliable data to clearly identify program strengths and opportunities for strategic improvement.
- **Strategic Alignment:** Connects program evaluation to institutional planning and budgeting, ensuring resources are directed toward mission-driven goals.
- **Accountability:** Demonstrates the University's commitment to students, faculty, and accrediting bodies through a transparent and well-documented review process.
- **Faculty Ownership:** Centers disciplinary expertise by making the review a faculty-driven process, supported by the administration and the University Assessment Committee (UAC).

Program Framework

For programs with specialized accreditors, the accreditor's self-study process fulfills the University's program review requirement. Programs without specialized accreditation participate in this review process on a six-year cycle. The review itself is organized into three essential phases:

Phase I: The Self-Study

Faculty lead a structured, evidence-based reflection using the provided form and institutional metrics provided by the Office of Institutional Research and Effectiveness (OIRE). This phase evaluates the program's current condition, performance trends, and trajectory over the previous six years.

Phase II: Internal Review

Once the self-study is approved by the Provost, the UAC conducts an internal evaluation of the self-study document. The UAC provides a formal report that outlines:

- Identified program strengths;
- Specific areas for improvement; and
- Actionable recommendations for the department chair.

Phase III: Strategic Action Planning

Following the internal review, programs develop a strategic action plan consisting of at least five goals aligned with the UAC's recommendations. Each goal must include:

- **Objectives:** At least three specific initiatives or actions to support the goal.
- **Resources:** A clear description of the resources required for implementation.
- **Metrics:** Overarching metrics to assess progress and measure success.

Mid-Cycle Accountability

In the third year of the six-year cycle, programs may be required to submit a mid-cycle status update. This report tracks progress toward the strategic goals established in the final report and is mandated if recommended by the UAC and approved by the Provost.

Annual Schedule of Activities

To support a smooth and productive experience, all programs follow a consistent, standardized timeline::

Timeline	Activity
February 1	The Provost's Office notifies department chairs of programs assigned for review. Program review support documents and forms are provided. The Office of Institutional Research and Effectiveness (OIRE) provides relevant institutional metrics and offers consultation support for completing the self-study and final report.
February–September	Programs collaborate with relevant stakeholders to gather and analyze data and complete the self-study form. The OIRE provides assistance as needed to programs undergoing review. The Provost's Office sends periodic reminders regarding timeline milestones.
September 30	Programs submit their self-study and required supplemental documents to the Provost's Office for review.
October 31	The Provost's Office reviews all self-studies. Approved studies proceed to the UAC for internal review. Programs requiring revisions must revise and resubmit by November 30. The Provost or designee may, at their discretion, request additional review by external partners.
November–February	The UAC reviews all approved self-study reports. An internal review report outlining strengths, areas for improvement, and recommendations is provided to the department chair.
April 30	Program faculty and relevant stakeholders draft a final report with strategic initiatives based on the self-study, internal review, and other pertinent documents. The OIRE provides assistance as needed. The final report and supplemental resources are submitted to the Provost's Office for review.
May 31	The Provost's Office reviews and approves final reports. Programs requiring revisions must revise and resubmit by June 30.
July 31	All reviews and final reports are finalized. Documentation is archived in the Continuous Improvement and Accreditation Teams space.
Year 3 of 6-Year Cycle	Programs may be required to submit a mid-cycle status update report to the UAC and Provost regarding progress toward action plan goals. Mid-cycle reports are required if

	recommended by the UAC and approved by the Provost.

Figure 8. Timeline of Program Review Activities

Overall, the academic program review process provides a clear, structured approach for evaluating programs and supporting continuous improvement. By following the established phases and timeline, programs can document their progress, respond to feedback, and ensure they remain aligned with the University's goals and expectations.

Administrative Unit Assessment

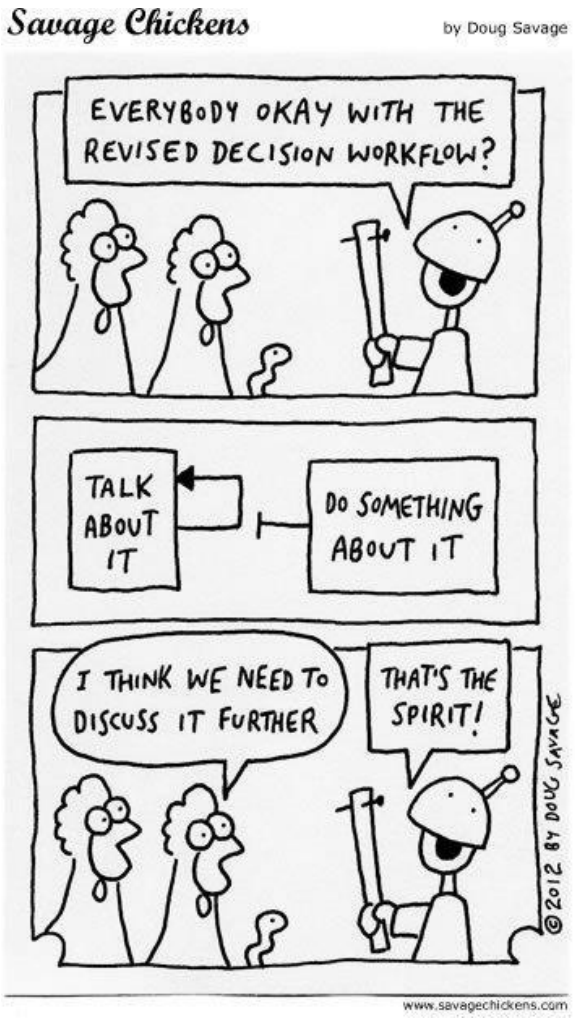


Figure 9. Savage Chickens

Administrative Units Defined

"Administrative units" is a broad term meant to encompass all budget-entities with administrative supervision over one or more areas, exclusive of academic degree programs. As a basic expectation, from an accreditation reviewer's standpoint, each unit to which a budget is attached would submit assessment on its performance to demonstrate the effectiveness of that budget allocation. This would mean that offices such as Admissions, Financial Aid, and so on would develop their own assessment plans (if budgeted separately) and those would "roll up" to the sub-division plan developed by the Vice President's/Provost's office for that sub-division.

While it is important to keep accreditors' expectations in mind, the best organization is the one that enables the institution to assess well its most important operations, the ones that it spends the most of its time and money on and aligns closest with the mission. The reason that this typically involves, directly or indirectly, every unit is that every unit is in some way responsible for advancing the University's mission.

Annual Administrative Assessment Planning and Strategic Planning

Strategic planning takes place at an institutional level and sometimes at a division or program level. It typically does not occur at an individual unit level as units are typically the tools of a larger administrative structure to affect a strategy rather than strategy-makers. This is important because individual units have two overarching considerations in developing their goals and objectives. One is their own mission, or function, within the institution (e.g., to admit students); and the second is to measure their progress or impact on division-level or institutional strategic initiatives or metrics. Often, at the division level and most certainly at the institutional level, the goals and objectives are multi-unit operations, sometimes crossing traditional institutional boundaries between divisions. In some strategic plans or phases of a strategic plan, a given unit may not have any particular role. That does not mean that the unit's work is not important. It still has a mission, a budget, and a function to perform. This is why the first step in good assessment planning begins with writing (or reviewing) your unit's mission statement.

Foundations for Effective Assessment

In this phase of the document, we will lay out the elements for building a solid assessment system, a plan, really, for facilitating your unit's effective operations.

Writing (or Reviewing) the Mission and Vision Statements

Each unit has an established mission statement that outlines its role, scope, and purpose. It should also have a vision statement that describes what the unit aspires to be or to achieve.

- **Mission Statement:** A brief statement that identifies the major purpose of the department or unit. This statement describes who you are, what you do, and for whom you do it.
- **Vision Statement:** A concise, future-oriented statement that paints a picture of where the department or unit aims to be (forward direction, e.g., to become a nationally recognized Academic Support Center).

The Mission Statement

Unless your unit is a brand-new creation, it probably already has mission and vision statements that guide the development of unit objectives. In this case, it is good practice to review the unit's mission and vision at the start of each cycle during the reflection and planning phase to verify that it still accurately represents the work of the unit and its role within the institution.

The following rubric can assist you in writing or reviewing your unit's mission statement:

Table 14. Mission Statement Rubric

Mission (Division/School/Dept./Unit	**CHECKLIST**	**SAMPLE MISSION STRUCTURE**	**CONSTRUCT YOUR MISSION**
DOES IT ADDRESS? • **Who we are? /Why does**	❑ **Teaching/Learning** *(Skills/Knowledge)* _____	"The mission (of your unit name) is to (your primary purpose) by providing (your	

the unit exist? ❑ Name of your division, school, department, unit ❑ Identify the overall purpose of the unit _____ • **What do we do? /What does the unit do?** ❑ Your unit's primary purpose and formal requirements ❑ Identify stakeholder expectations, requirements, services, and products provided by the unit _____ • **For whom do we do it? /Who does the unit serve?** ❑ Reflect the needs of stakeholders or customers of your unit ❑ Identify the major stakeholders of the Unit _____	❑ **Research/Scholarship** *(Discovery/Innovation)* _____ ❑ **Civic Collaborative** *(Service/Partnership)* _____ ❑ **Administrative or Educational Support Service** *(e.g. Customer Service, efficiency)* _____	Primary functions or activities) to (your stakeholders)" (You may add additional clarifying statements) **Note**: the order of the pieces of the mission statement may vary from the above structure	

The Vision Statement

A vision statement describes the unit in a future, successful state. It is meant to be inspirational and aspirational. What if, for example, we achieved all of our goals and delivered on our mission beyond our expectations? A good vision statement is both comprehensive and concise, describing in a few short words or phrases, what the unit hopes to be in the future.

Writing Unit Goals

Unit goals are ways of breaking out (parsing) the language of the mission statement. Each major purpose of a unit should, ideally, have a goal associated with it. Goals are often aspirational or longer-term statements and describe a generic action or outcome towards which we strive.

Let's look at an example:

- **Mission Statement:** deliver a high-quality dining experience to all members of the campus community.
- **Goal:** To provide a wide selection of dining options at peak and non-peak times throughout the week.

Notice the mission statement is short and open-ended, but easy to remember. Moreover, we can define "high-quality dining experience" in many different ways. The goal above defines it in terms of dining options, this may be through menu selection or venue or both. Other goals may focus on quality of ingredients, ease of access and availability (particularly if catering services are included), cost-benefit to customers, and, of course, satisfaction of customers. There may be other considerations as well, but the point is that by articulating one's goals, one further defines the scope of the mission statement and begins to give it measurable meaning; that's where objectives come in.

Writing Measurable Objectives

In many ways, objectives are the most important piece of good assessment. Typically, when we write missions and goals, we think in broad terms about what we are and where we want to be. But when it comes to writing an objective, we need to think in terms of tangible evidence that demonstrates that our efforts have resulted in

something. Not just, be the best, but score in the highest percentile. What, in other words, will definitively show the impact of the effort expended?

So, when writing objectives, think in terms of the outcomes, or effects, sought from the activity the objective describes. Not just what do I want to see at the end, but how different it will look from where we are now.

Types of Objectives

As a matter of good institutional effectiveness, measurable objectives can be categorized into three types: outcome statements; process statements; and satisfaction statements.

Outcomes measure the result of some activity: we do X and Y occurs. The measurement is not based on the action taken but on the intended effect relative to a baseline or benchmark likely to result from the action.

Process objectives focus on the quality of the service or function performed. Rather than the intended effect, they measure improvement in processes such as reduced cost, greater accuracy, efficiency, or other desirable outcomes.

Satisfaction objectives are self-explanatory: you hope that your services results in a high-level of satisfaction among your clients or stakeholders.

For most administrative units, especially those in a service capacity, it is good practice to have at least one objective related to improved or quality satisfaction. The table below provides more definition for each of these types of objectives as well as examples.

Table 15. Administrative Assessment Objectives Example

Statement Type	Description	Example
Outcome Statements	Focused on how the services or educational support have impacted/changed a student in terms of knowledge, skills, or attitude/values	• 70% of students requesting access to library resources will learn to use online library tool. • 80% of graduates seeking employment will have the ability to write an acceptable career resume. • 75% of students seeking summer internship opportunities will be able to access and use online experiential learning search tool provided by Career Center.
Process Statements	Focused on desired quality of key functions and services (i.e., timeliness, accuracy, efficiency, volume, responsiveness, compliance, etc.)	• The University Police will fulfill 95% of escort requests within 15 minutes of receiving the request. • Industry Partnership will convert 75% partners to internships by 2027-28. • Registrar's office will submit 90% of transcript requests electronically by 12/31/2026.
Satisfaction Statements	Focused on levels of overall satisfaction with the services provided	• 80% students using library resources will be satisfied with library circulation service. • Increase student satisfaction with the overall online registration process from 70% to 80% by AY2026-27. • 80% of graduates using Career Center will be satisfied with their job advisement services.

Make them SMART

A common method for writing objectives is to make them SMART! This mnemonic helps you to construct good, measurable objectives. Consider each letter:

- **S**pecific—it should identify a target population and say what will be accomplished.
- **M**easurable—it should clearly indicate some comparable results.
- **A**chievable—it should be something your unit can actually do.
- **R**elevant—it should address the goal that it supports.
- **T**ime-bound—explicitly or implied, it should indicate the time period in which the result will occur (e.g., when will the objective be met?).

There are many ways to write SMART objectives. As you write and revise, use the following criteria to guide you:

Table 16. SMART Objectives

Specific	Measurable	Achievable	Relevant	Time-bound
Who is the target population? What will be accomplished?	Is the objective quantifiable? Can it be measured? How much change is expected?	Can the objective be accomplished in the time-frame with the available resources?	Does the objective address the goal? Will the objective serve as evidence of realizing the goal?	Does the objective provide some time-frame when it will be met? (e.g. year-over-year comparison)

Number of Objectives Needed

Depending on the complexity of the goal, the number of objectives can vary, but it's recommended to have at least three. In general, units should try to work on a few goals per year. This ensures the units remain focused and capable of achieving each objective at a genuinely satisfactory level. Remember, you may come up with dozens of things you would like to measure, but they do not all have to be measured in a given year. You can always save them for the next year's assessment cycle.

Identifying the Appropriate Means for Assessing Objectives

Now that you know what you want your results to be (and presumably know how to bring them about), you must determine a means of measuring that impact that can be documented and used as proof of your success (or failure- that's okay, too).

The "means of assessment" refers to the method used to evaluate an objective. This may include a formal assessment tool (such as a survey) or specific completion actions tied to the objective. It also includes the criteria for success, which define the expected level of performance or outcome (e.g., achieving 90% satisfaction).

General Considerations

When identifying the appropriate means of assessment, keep in mind the following:

- The assessment tool must gather evidence related to the intended objective.
- Each objective must have at least one assessment measure; however, it is best to use a triangulation approach or multiple means of assessment when feasible.
- The timeframe for each assessment method should be indicated (each semester, annually, in alternate years, etc.).
- Direct (e.g., ticket response times) or indirect (e.g., survey results) assessment measures can be used.

Assessment Tools

There are numerous assessment tools available, from off-the-shelf varieties such as nationally normed surveys or standardized tests to in-house developed instruments or even a department's own record- keeping process can serve as tools for measuring results. Assessment tools can be described, however, in one of two ways:

- **Direct Assessment Measures**: Direct assessment measures provide data that directly correlates with the achievement of the expected objective outcomes. A direct measure explains the specific activity that will demonstrate the extent to which an objective has been accomplished and provide information that may be used to make improvement related decisions in ensuing years.
- **Indirect Assessment Measures**: Indirect assessment measures gather opinions or perceptions about an objective outcome. These measures are useful when paired with direct assessment measures.

Establishing Criterion for Success

The criterion for success is the benchmark or target, and it serves as an indicator for the expected or overall levels of accomplishment. If you have written your objective well, then your criteria for success is already included in it, so you do not have to re-think it. In the planning form, you essentially restate the criteria established in the objective.

Here are guidelines for developing clear and effective assessment criteria:

- Express the criteria or benchmark using quantitative measures such as percentages, percentiles, or averages.
- Include a specific target that defines the expected level of accomplishment. This may reflect a proficiency level or a required number or percentage of people, activities, or items.
- When using a completion measure, clearly describe how the final task or product will be applied or evaluated.

EXAMPLE 1: Students wait time for advising will decrease 20%.

EXAMPLE 2: At least 75% of the students living in the resident halls will report a level of satisfaction with the overall experience at a 3 (Satisfactory) or above on a 5 point scale.

EXAMPLE 3: System setup is complete with at least two dozen users utilizing the system for requests.

Establish a reasonable benchmark or target. Depending on the nature of the objective, using absolutes such as 100% or "All" may be necessary. In most cases, however, targeting absolutes is unwise. Instead, criterion should be based on baseline/benchmark data, national or peer-group norms, or another rationale. The important thing, however, is to remember to include your rationale in your planning document.

Data Collection and Analyzing and Interpreting the Findings

This is the fun part where you start to see the results of your efforts.

Data Collection

Once you have established the means of assessment for all objectives, develop a timetable for data collection.

The schedule should include:

1. All assessment tools
2. Where the data will be collected from
3. When the data will be collected
4. Who is responsible for collecting the data

Remember:

- Data can be collected as soon as it becomes available even if the analysis of the data will take place at the end of the semester or at the end of the academic year;
- To ensure the integrity and validity of the data used in the assessment the same data should be collected at the same time each semester/year;
- Data should be collected, retained, and summarized in ways that facilitate its use; and
- Only collect data that is useful and will provide information that can help to improve programs and services should be included.

Data Analysis and Interpretation

Data Analysis involves reviewing the data to determine whether the intended results have been accomplished. In the analysis phase, the goal is to identify patterns in the data and gain an understanding of what has occurred. Data analysis can take place once the appropriate data is collected, or at the end of the assessment period.

In the interpretation phase, the goal is to make meaning of the results and determine the significance of the result for the program or services provided. In other words, the purpose of data interpretation is to determine how the data that has been analyzed can be turned into information for improving a program or services.

Baseline Data: If the department/unit has previously measured an objective, this data should be used as the baseline for setting targets/benchmarks for the next year.

When analyzing the data, answer the following questions:

- Were the targets met?

- Are there any repeating or common patterns in the data?
- Could the results be improved?
- Are the objectives and/or measures useful?

To go a step further and interpret the results or determine the meaning and application of the results, answer the following questions:

- Why was the target met or not met?
- What impact do these results have on the department/unit?
- How can this information be used to improve the department/unit?

Communicating Results and Applying the Findings for Improvement

The results of the assessment plan should be included in the final assessment report. The report should clearly state whether the program objectives are achieved. For example, the results can be used to demonstrate that the program has achieved the intended outcomes at the established performance level, or that the intended outcome was not achieved. If the outcome is not achieved, an action plan to improve the program or service and facilitate the achievement of the objective should be developed and included in the final report.

The final phase in the assessment plan is often referred to as **Closing-the-Loop**. Here the identified action to improve the program or services or the overall department/unit is implemented. The impact of the changes made should be evaluated and reported in the next assessment cycle to close-the-loop. If the action taken does help the program achieve the desired improvements or the intended objective outcome, then further action toward improvement should be determined and implemented at the end of the assessment cycle.

Once the report is created, it should be distributed to all the appropriate administrator(s) and shared with constituents within the institution through formal and informal avenues in a timely manner. Assessment results can be shared in the following ways:

- Faculty & staff meetings
- Institutes/workshops
- Department website
- Newsletters
- Interdepartmental memos
- Community work groups

(Semi-) Final Note

Assessment is not an add-on to your regular departmental duties. If approached this way, it is meaningless. Rather the assessment process is an opportunity to step back and reflect on the shape and purpose of your unit. By fleshing out what among all your unit's responsibilities is most important and making the assessment of that activity meaningful, it can enhance your job satisfaction and even facilitate unit morale. Taking assessment seriously will enable you to look at meaningful results and make decisions based on evidence and with a clear purpose in mind.

Administrative Unit Assessment Review Cycle and Improvement Process

As noted in the introductory section of this document, the annual cycle typically begins and ends on July 1 and June 30th, respectively. The process includes the following:

1. Planning—typically a winter process (Dec – Feb 15);
2. Budgeting—spring (Jan – March); and
3. End-of-Year Assessment—summer (June – July).

The year-end report covers activities and the data collected for the previous academic year. The subsequent planning phase looks at results from the prior year(s), as well as any information from the current year, to determine budgeting for the next academic year cycle. So, while a unit is currently undergoing annual assessment they are also looking ahead to determine budgetary needs for the next cycle.

3-Year Assessment Cycle

Like academic assessment, administrative assessment operates on a three-year cycle designed to promote continuous improvement. At the beginning of each cycle, units complete a reflection form that prompts them to evaluate their operations using selected components of the Council for the Advancement of Standards in Higher Education (CAS) framework. Preparers assess their unit's status across key areas, identify strengths and challenges, and provide supporting evidence for their evaluations.

Following the reflection phase, units develop a goal planning form that outlines strategic priorities for the upcoming three years. These goals are aligned with the current University strategic plan and are supported by specific objectives. Each objective includes defined activities, responsible personnel, timelines, and performance indicators to measure progress.

Together, the reflection and planning forms serve as a roadmap for the unit, guiding goal prioritization and resource allocation throughout the cycle. Annually, units submit a report detailing their progress toward the established goals. At the conclusion of the three-year period, the cycle resets, beginning again with a new round of reflection, planning, and goal setting. Some goals will close out in the cycle and others may be carried forward.

Administrative Assessment 3-Year Cycle Activities

AY26-27: Year 1 of 3

START OF THE YEAR	DURING THE YEAR	END OF THE YEAR

- Ensure the reflection form for the 3-yr cycle is complete
- Ensure the goal setting form for the 3-yr cycle is complete
- Identify the following items to be assessed in this AY's cycle:
  - Goals and their alignment with strategic plan
  - Supporting objectives for each goal
  - Activities
  - Responsible Party(ies)
  - Timeline
  - Measurement of success
	- Implement any interventions aligned with this AY's cycle
	- Develop process(es) and collect relevant assessment data
	- Adjust intervention(s) as needed
	- Refer to the unit's goal setting form, and determine budgetary needs for the next academic year
	- Prepare written justifications for any requests for the upcoming budget cycle {if needed}
		- Reflect on completed activities and analyze any data collected
		- For each objective, write a summary outlining any accomplishments and determine if it was achieved
		- Review all progress and determine if any goals were met
		- Detemine if goals need to be extended or adjusted in the plan
		- Upload all data collection documentation to Teams
		- Complete all required fields within the Planning Module in Xitracs
		- Provide updates to leadership/stakeholders as outlined in the cycle's plan

AY27-28: Year 2 of 3

START OF THE YEAR	DURING THE YEAR	END OF THE YEAR

- Identify the following items to be assessed in this AY's cycle:
  - Goals and their alignment with strategic plan
  - Supporting objectives for each goal
  - Activities
  - Responsible Party(ies)
  - Timeline
  - Measurement of success
	- Implement any interventions aligned with this AY's cycle
	- Develop process(es) and collect relevant assessment data
	- Adjust intervention(s) as needed
	- Refer to the unit's goal setting form, and determine budgetary needs for the next academic year
	- Prepare written justifications for any requests for the upcoming budget cycle {if needed}
		- Reflect on completed activities and analyze any data collected
		- For each objective, write a summary outlining any accomplishments and determine if it was achieved
		- Review all progress and determine if any goals were met
		- Detemine if goals need to be extended or adjusted in the plan
		- Upload all data collection documentation to Teams
		- Complete all required fields within the Planning Module in Xitracs
		- Provide updates to leadership/stakeholders as outlined in the cycle's plan

AY28-29: Year 3 of 3

START OF THE YEAR	DURING THE YEAR	END OF THE YEAR

- Identify the following items to be assessed in this AY's cycle:
  - Goals and their alignment with strategic plan
  - Supporting objectives for each goal
  - Activities
  - Responsible Party(ies)
  - Timeline
  - Measurement of success
	- Implement any interventions aligned with this AY's cycle
	- Develop process(es) and collect relevant assessment data
	- Adjust intervention(s) as needed
	- Refer to the unit's goal setting form, and determine budgetary needs for the next academic year
	- Prepare written justifications for any requests for the upcoming budget cycle {if needed}
		- Reflect on completed activities and analyze any data collected
		- For each objective, write a summary outlining any accomplishments and determine if it was achieved
		- Review all progress and determine if any goals were met; provide recommendations for areas of focus in the next AY's cycle, if applicable
		- Upload all data collection documentation to Teams
		- Complete all required fields within the Planning Module in Xitracs
		- Provide updates to leadership/stakeholders as outlined in the cycle's plan
		--- 	
		- Complete the reflection form for the next 3-yr cycle
		- Complete the goal setting form for the next 3-yr cycle

Figure 10. Administrative Assessment Cycle Responsibilities by Year

Appendix F provides a sample administrative unit annual report. Additional support resources for administrative assessment can be found on the Administrative Unit Planning and Assessment Teams Space.

Appendices

Appendix A: Cognitive Levels, Terms, and Assessment Tasks—Three Models

Bloom's Taxonomy, 1956

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Ability to recall previously learned material	*Ability to grasp meaning, explain, and restate ideas*	*Ability to use learned material in new situations*	*Ability to separate material into component parts and show relationships between parts*	*Ability to put together th separate idea to form new whole, establish*	*Ability to Judge the worth of material against stated criteria*
	Classify	Apply	Analyze	Arrange	Appraise
Arrange	Compare	Change	Appraise	Assemble	Argue
Define	Convert	Choose	Breakdown	Categorize	Assess
Describe	Defend	Complete	Calculate	Collect	Choose
Duplicate	Describe	Construct	Categorize	Combine	Compare
Identify	Discuss	Demonstrate	Compare	Comply	Conclude
Label	Distinguish	Discover	Contrast	Compose	Contrast
List	Estimate	Dramatize	Criticize	Construct	Defend
Match	Explain	Employ	Debate	Create	Describe
Memorize	Express	Illustrate	Diagram	Design	Discriminate
Name	Extend	Interpret	Differentiate	Develop	Estimate
Order	Generalized	Manipulate	Discriminate	Devise	Evaluate
Outline	Give Example(s)	Modify	Distinguish	Explain	Explain
Recognize	Identify	Operate	Examine	Formulate	Interpret
Relate	Indicate	Practice	Experiment	Generate	Judge
Recall	Infer	Predict	Identify	manage	Justify
Record	Locate	Prepare	Illustrate	Organize	Measure
Repeat	Paraphrase	Produce	Infer	Plan	Predict
Reproduce	Predict	Relate	Inspect	Prepare	Rate
Select	Recognize	Schedule	Inventory	Rearrange	Revise
State	Restate	Show	Model	Reconstruct	Score
Tell	Rewrite	Sketch	Outline	Relate	Select
Underline	Review	Solve	Point out	Reorganize	Support
	Select	Use	Question	Revise	value
	Summarize	Write	Relate	Rewrite	
	Tell		Select	Set up	
	Translate		Separate	Summarize	
				Synthesize	
				Tell	
				Write	

Figure 11. Blooms Taxonomy

Anderson and Krathwohl's Taxonomy, 2000

Higher Order Thinking Skills

Adapted from: Anderson, L.W., & Krathwohl (Eds.). (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. New York: Longman.

Lower Order Thinking Skills

Remembering	Understanding	Applying	Analyzing	Evaluating	Creating
Retrieving, recalling or recognizing knowledge from long-term memory.	*Determining meaning form different types of function be they oral, written or graphic*	*Carrying out or using a procedure through executing or implementing.*	*Breaking material or concept into part, determining how the parts relate to one another or to an overall structure or purpose.*	*Making judgments based on criteria and standards through checking and critiquin*	*Putting the elements together to forr a coherent or functional whol*
				Appraise	Adapt
				Argue	Anticipate
		Act	Advertise	Assess	Arrange
		Administer	Analyze	Choose	Assemble
Arrange	Ask	Articulate	Appraise	Compare	Categorize
Define	Associate	Apply	Breakdown	Conclude	Collaborate
Describe	Cite	Calculate	Calculate	Contrast	Collect
Duplicate	Classify	Chart	Categorize	Consider	Combine
Identify	Compare	Collect	Classify	Convince	Comply
Locate	Convert	Compute	Compare	Critique	Compose
Label	Defend	Change	Conclude	Debate	Construct
List	Describe	Choose	Connect	Decide	Create
Match	Discuss	Complete	Contrast	Defend	Design
Memorize	Distinguish	Construct	Correlate	Describe	Develop
Name	Demonstrate	Demonstrate	Criticize	Discriminate	Devise
Order	Discover	Discover	Debate	Distinguish	Explain
Outline	Differentiate	Dramatize	Deduce	Editorialize	Express
Quote	Estimate	Develop	Devise	Estimate	Facilitate
Recognize	Explain	Establish	Diagram	Evaluate	Formulate
Relate	Express	Examine	Differentiate	Explain	Generate
Recall	Extend	Explain	Discriminate	Find errors	Imagine
Record	Give Example(s)	Employ	Distinguish	Grade	Infer
Repeat	Group	Illustrate	Dissect	Interpret	Intervene
Reproduce	Identify	Interpret	Divide	Judge	Justify
Select	Indicate	Judge	Estimate	Justify	Make
State	Infer	List	Evaluate	Measure	Manage
Tell	Illustrate	Manipulate	Examine	Order	Negotiate
Underline	Judge	Modify	Experiment	Persuade	Organize
Visualize	Paraphrase	Operate	Explain	Predict	Originate
	Predict	Practice	Focus	Rank	Plan
	Recognize	Predict	Identify	Rate	Prepare
	Restate	Prepare	Illustrate	Recommend	Propose
	Rewrite	Produce	Infer	Reframe	Rearrange
	Review	Relate	Inspect	Revise	Reconstruct
	Select	Record	Inventory	Score	Relate
	Summarize	Simulate	Model	Select	Reorganize
	Show	Schedule	Order	Support	Revise
	Tell	Show	Organize	value	Rewrite
	Translate	Sketch	Outline	Rewrite	Schematize
	Trace	Solve	Plan	Set up	Set up
	Transform	Teach	Point out	Summarize	Simulate
		Transfer	Prioritize	Synthesize	Solve
		Utilize	Question	Tell	Speculate
		Use	Relate	Value	Structure
		Write	Select	Weight	Support
			Separate	Write	Summarize
			Subdivide		Synthesize
			Survey		Test
			Test		Tell
					Validate

Figure 12. Anderson & Krathwohl's Taxonomy 2000

Rogers and Hatfield Learning Levels

Cognitive Levels, Terms and Assessment Task
Gloria Rogers with Susan Hatfield
"Fundamentals of Program Assessment"
ABET, Inc.

Learning levels	Level Indicators	Assessment Task
Knowledge	Define Describe Label Recite Select State Write Identify	**Remembering previous learned information:** -Complete multiple choice -Fill in the blank -Provide oral response -Complete true/false -Develop a list -Choose among alternatives (could be a list)
Comprehension	Match Paraphrase Restate Illustrate Compare Predict Defend Explain	**Grasping the meaning of information previously presented:** -Give an analogy -Create an outline -Summarize in own words -Create a concept map -Draw a diagram -Graph the answer -Match term with a definition
Application	Apply Change Make Model Show Calculate Examine Solve Use	**Using principle/formula/processes previously learned:** -Compute an answer -Solve a problem similar to previous problems -Solve a problem in a new setting -Create a model -Write an essay that requires the use of the concepts/processes learned -Use theory or principle to explain an event or phenomena
Analysis	Analyze Compare/contrast Differentiate Categorize Distinguish Relate	**Breaking down objects or ideas into simpler parts and seeing how the parts relate and are organized:** -Deconstruct a model -Identify differences -Group like items together -Identify what is missing -Identify cause and effect -Perform a SWOT analysis -Discuss an event/ perspective from multiple perspectives -Present the potential impact resulting from a decision or choice
Evaluation	Evaluate Select Recommend Rank Critique Judge Assess	**Making judgments based on internal evidence or external criteria:** -Choose best among options and defend your choice -Rank from best to worse using establish criteria -Develop criteria for judgment and apply to a solution -Recommend and defend choice for action -Present the pros and cons of an approach -Determine the degree of success or failure of an action or event
Create	Make Generate Build Form Construct Design Fashion Produce	**Making or producing something based on previously learned information and processes:** -Create an end-of program capstone project -Complete a summative class project -Write a summative paper in a course -Write an end-of program thesis -Write an end-of program dissertation -Design an original approach to a situation or problem -Write a short story, poem, play -Use a form of artistic expression to respond to an exigence -Develop a curriculum that integrates multiple disciplines -Conduct independent research

Figure 13. Rogers & Hatfield Learning Levels

Appendix B: Course Objectives vs. Learning Outcomes (A very short essay).

Previously in this document, I blocked the following text:

> Course Objectives vs. Course Outcomes:
>
> Course objectives are what you plan to put *into a course, e.g. to teach students about….*;
> Learning outcomes are what students are supposed be able to do with that material…

Before I explain why this is so, let me get three things out of the way:

1. We haven't always thought of it this way at Poly;
2. Assessment literature differs on this definition of this term; and
3. Talked about this way means we think of objectives for courses in a fundamentally different way from how we talk about them for administrative units.

These concepts can be defined as:

- Course Objective: to introduce literary terms, theories, and their application to reading and interpretation.
- Course Learning Outcome: students will be able to apply literary terms correctly and appropriately in analyzing a text.

Course objectives help me know what I'm going to teach; course learning outcomes help me to design the situations in which assessment will take place.

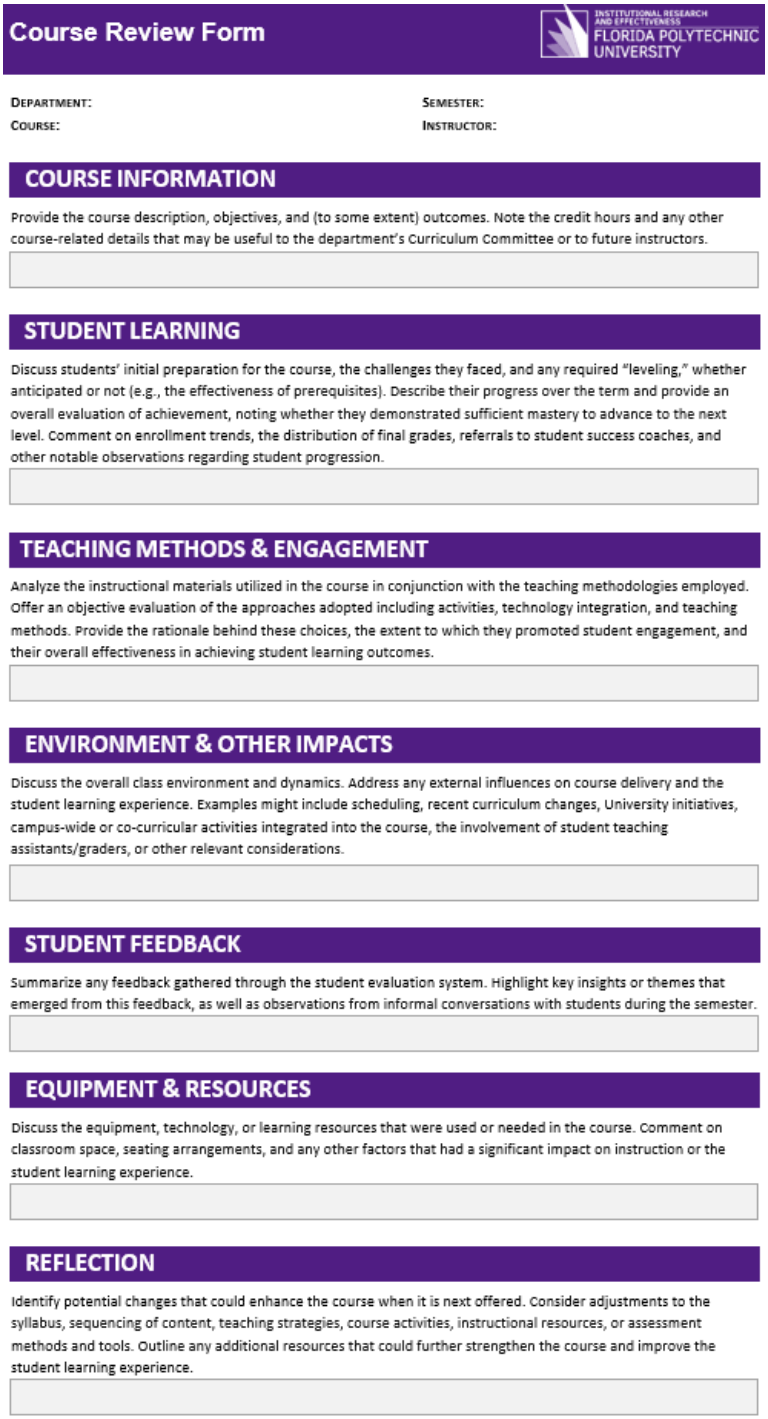
For instance, applying terms differs greatly from identifying them. Thus, the outcome directs me to design an assignment that requires students apply the appropriate terminology to a primary source.

Objectives for a course may include not only what the program (or instructor) intends to put in to it, but also the course's purpose in the program: its relationship to larger pieces of a curriculum. For example, to provide foundational skills in research necessary to further study in the degree. That's very general, but you get the idea.

The point here is that by writing course objectives as inputs, you link each course to the broader coverage of content defined by the discipline; learning outcomes, by contrast, link student acquisition and application of this knowledge from course-level mastery to program-level achievement.

Appendix C. Course Review Form

For courses that are not scheduled to conduct formal assessment of CLOs, or where there is not another administrative or pedagogical reason for CLO assessment, faculty are strongly encouraged to file a course review. The course review is not a formal assessment of learning outcomes, but a reflection of practice, a holistic assessment of student learning and engagement, and recommendations with respect to a range of matters including content, teaching and delivery methods, role in the curriculum, and so on.



Course Review Form

INSTITUTIONAL RESEARCH AND EFFECTIVENESS
FLORIDA POLYTECHNIC UNIVERSITY

DEPARTMENT: SEMESTER:
COURSE: INSTRUCTOR:

COURSE INFORMATION

Provide the course description, objectives, and (to some extent) outcomes. Note the credit hours and any other course-related details that may be useful to the department's Curriculum Committee or to future instructors.

STUDENT LEARNING

Discuss students' initial preparation for the course, the challenges they faced, and any required "leveling," whether anticipated or not (e.g., the effectiveness of prerequisites). Describe their progress over the term and provide an overall evaluation of achievement, noting whether they demonstrated sufficient mastery to advance to the next level. Comment on enrollment trends, the distribution of final grades, referrals to student success coaches, and other notable observations regarding student progression.

TEACHING METHODS & ENGAGEMENT

Analyze the instructional materials utilized in the course in conjunction with the teaching methodologies employed. Offer an objective evaluation of the approaches adopted including activities, technology integration, and teaching methods. Provide the rationale behind these choices, the extent to which they promoted student engagement, and their overall effectiveness in achieving student learning outcomes.

ENVIRONMENT & OTHER IMPACTS

Discuss the overall class environment and dynamics. Address any external influences on course delivery and the student learning experience. Examples might include scheduling, recent curriculum changes, University initiatives, campus-wide or co-curricular activities integrated into the course, the involvement of student teaching assistants/graders, or other relevant considerations.

STUDENT FEEDBACK

Summarize any feedback gathered through the student evaluation system. Highlight key insights or themes that emerged from this feedback, as well as observations from informal conversations with students during the semester.

EQUIPMENT & RESOURCES

Discuss the equipment, technology, or learning resources that were used or needed in the course. Comment on classroom space, seating arrangements, and any other factors that had a significant impact on instruction or the student learning experience.

REFLECTION

Identify potential changes that could enhance the course when it is next offered. Consider adjustments to the syllabus, sequencing of content, teaching strategies, course activities, instructional resources, or assessment methods and tools. Outline any additional resources that could further strengthen the course and improve the student learning experience.

Figure 14. Course Review Form

Appendix D. Course Assessment Report Worksheet

For courses that are not scheduled to conduct formal assessment of CLOs, or where there is not another administrative or pedagogical reason for CLO assessment, faculty are strongly encouraged to complete a course assessment report form. This enables a deep dive into assessment results for programmatic improvement. Course assessment is recommended for new courses, courses that have undergone significant revision, courses with persistent problems, or gateway courses.

Course Assessment Report Worksheet

INSTITUTIONAL RESEARCH AND EFFECTIVENESS
FLORIDA POLYTECHNIC UNIVERSITY

Course Information	
Course Code & Title:	
Instructor(s):	
Term/Academic Year:	

Outcome Information			
Learning Outcome *List the course learning outcomes below. One outcome per row.*	**Assessment Method** *Indicate the student performance (e.g., assignment, exam) used to measure the outcome. Explain how student performance is judged (e.g., rubric assessed and scale; embedded questions; multiple methods). In short, how do you distinguish the quality of one performance over another?*	**Performance Expectation** *What level of attainment on the assessment constitutes proficiency? What #/% of students are expected to achieve proficiency? E.g., 75% of students will achieve a 3 or better on rubric indicators*	**Results** *Identify whether criterion was Met/Not Met and the numeric results (% and#). E. g., MET--82% (82/100 students) met the proficiency expectation.*
Analysis & Findings *The results: answer the question, what did the program learn based on the results of the assessment?*			
Action Plan: *Based on these findings, explain the program's plan for improving achievement of the educational objective*			

Figure 15. Course Assessment Report Worksheet

Appendix E. Program Learning Outcome Evaluation Form

Academic Assessment Cycle Worksheet

FLORIDA POLY

This sheet is designed to capture your assessment activities for the current cycle year. Use it to document your activities before entering them into Xitracs. Cells marked with an asterisk (*) must be entered into Xitracs. For guidance on completing a field, hover over the text to view instructions.

Unit Information	
Program Name:	
*Program Description:	
*Program Mission:	
Academic Year:	

Program Learning Outcome 1				
*Program Learning Outcome:			*Cycle Year: Choose an item.	
*Course(s)	*Assessment Method(s)	*Performance Expectation(s)	*Met/Not Met	*Result(s)
*Analysis & Findings:				
*Action Plan:				

Copy the table above if you need to add additional PLOs for this reporting cycle.

Figure 16. PLO Evaluation Form

Appendix F. Administrative Unit Assessment Report

Administrative Assessment Annual Reporting Worksheet

INSTITUTIONAL RESEARCH AND EFFECTIVENESS
FLORIDA POLYTECHNIC UNIVERSITY

This sheet is designed to capture your assessment activities for the current cycle year. Use it to document your activities before entering them into Xitracs. Cells marked with an asterisk (*) must be entered into Xitracs and those shaded in purple will be completed at the end of the cycle.

Unit Information			
Unit Name:	Office of Research Services (ORS)	**Academic Year:**	AY25-26
***Unit Mission:**	The mission of the ORS is to provide end-to-end research support services for all faculty, staff, and students including funding identification, compliance, and award management and reporting.		
***Unit Vision:**	ORS will assist faculty, staff, and students to enrich all types of research and education experiences and to operate consistently at the highest level of integrity and responsiveness in all areas of sponsored research.		

Goal 1			
***Unit Goal:**	To encourage and assist all faculty and staff in preparing and/or reviewing proposals to public and private funding sources (pre-award & award tabulation).	***Was the Goal Achieved:**	No
***Alignment to Florida Poly Strategic Plan:**	Priority 2: Advancement Through Intentional Resource Development /Goal 1: Increase financial assets and streamline operational efficiencies.		

***Objective 1:** Increase the number of external proposals submissions by 30% compared to AY24-25 benchmarks

*Activities	Responsible Parties	*Timeline	*Measurement of Success	*Results
Facilitate a workshop on sponsored research proposal writing. Establish a monthly open office hours session where faculty and staff can stop by to discuss potential research ideas and projects.	The Director of ORS will be responsible for conducting all activities for this objective.	The workshop will take place during Fall 2025. The open office hours will be ongoing monthly throughout the year. Departmental notification opportunities will be sent on a monthly basis.	Participation at the workshop and monthly open office hours will be recorded. These initiatives will result in a 30% increase in external proposal submissions.	Met, as of June 30th 2026, 23 proposals were submitted which represent a 42% increase over AY24-25 submissions.
Send departments monthly notifications of available research grants for their respective areas.				

***Objective 2:** Increase the number of external awards to the University by 20%

*Activities	Responsible Parties	*Timeline	*Measurement of Success	*Results
Establish a framework timeline document for faculty who choose to submit a research proposal. This new structure should help to increase timely completion rates for proposals. Work with the editors of the Pheonix to post an announcement whenever a research award is received to increase visibility of the ORS. Send departments monthly notifications of available research grants for their respective areas.	The Director of ORS will be responsible for conducting all activities for this objective.	The framework will be established in Q1 of the academic year. Notifications will be sent soon after the award is announced. Departmental notification opportunities will be sent on a monthly basis.	All intended proposal submissions will utilize the established framework to increase timely submission rates. Each award will be posted in the weekly Pheonix within 3 weeks of notification. Departmental notifications will be sent each month, where applicable. These initiatives will result in a 20% increase in external awards.	Not met, as of June 30th 2026, there are four new awards totaling 1.56 M which only represents a 12% increase.

***Resources Used:**	- $500 was allocated for food and refreshments during the Fall workshop. - $800 was invested, in partnership with the library, to secure access to a new research database supporting proposal development. - $2,500 was spent on consulting services from a grant search firm to identify additional STEM-related funding opportunities.
***Use of Results for Improvement:**	The workshop, open office hours, and departmental emails highlighting funding opportunities were well-received. Notably, 88% of workshop participants reported feeling more confident in applying for research grants. Building on this success, the Office of Research Services (ORS) will continue these initiatives in the upcoming cycle. The established framework has proven effective in expediting grant proposal submissions and will remain a core tool moving forward. In addition, notifications in The Phoenix and departmental funding emails have enhanced the office's visibility and are expected to further increase both proposal submissions and awarded grants. Although the overall goal was not fully achieved, outcomes will be documented as part of strategic plan reporting and presented to the Board of Trustees. Both objectives will be carried into the next assessment cycle, with Objective 1 likely revised to reflect adjusted growth expectations.

Figure 17. Administrative Unit Assessment Report

Appendix G. Academic Assessment Report

Academic Assessment Cycle Worksheet – Year 3 Assessing & Evaluating Example

FLORIDA POLY

This sheet is designed to capture your assessment activities for the current cycle year. Use it to document your activities before entering them into Xitracs. Cells marked with an asterisk (*) must be entered into Xitracs. For guidance on completing a field, hover over the text to view instructions.

Unit Information	
Program Name:	Bachelor of Science in Environmental Science
***Program Description:**	The Bachelor of Science in Environmental Science is an interdisciplinary program that prepares students to address complex environmental challenges through scientific inquiry, field-based research, and policy analysis. Students gain expertise in ecology, environmental chemistry, geographic information systems, and sustainability practices.
***Program Mission:**	To educate and empower the next generation of environmental scientists and stewards who will apply scientific knowledge, critical thinking, and ethical decision-making to promote environmental sustainability and address local and global environmental challenges.
Academic Year:	AY2627

Program Learning Outcome 1				
***Program Learning Outcome:**	Students will demonstrate the ability to design and conduct scientific research by formulating testable hypotheses, selecting appropriate methodologies, and collecting and analyzing environmental data using field and laboratory techniques.		***Cycle Year:**	Assessing/Evaluating (Yr 3)
***Course**	***Assessment Method**	***Performance Expectation**	***Met/Not Met**	***Results**
ENVS 2790 - Research Methods in Environmental Science	A subset of 8 embedded exam questions on the final examination specifically written to assess research design competency	At least 75% of students will score 70% or higher on the 8 exam questions	Met	75% (n=54; out of 72) scored a 70% or higher on the 8 embedded assessment questions. Data collected Fall 26 and Spring 27
ENVS 3150 - Senior Capstone Research Project	Capstone research paper rubric: the rubric uses a 5-point scale (1=Unsatisfactory, 2=Developing, 3=Proficient, 4=Accomplished, 5=Exemplary)	At least 80% of students will score 3 (Proficient) across all areas of the rubric; 85% will score a 4 (Accomplished) on the methodology section of the rubric	Met/Met	92% (n=23; out of 25) scored 3 or higher on all areas of the rubric; 88% (n=22; out of 25) scored 4 or higher on methodology section. Data collected Spring 26

***Analysis & Findings:**	Over the course of this assessment cycle, student performance data demonstrated overall improvement. For ENVS 2790, students met the exam question performance expectations in both years. Across the two years, 78% of students (n = 118 out of 152) scored 70% or higher on the exam questions specifically designed to assess research design competency. For ENVS 3150, in AY2526, students partially met the performance expectation exceeding the overall rubric benchmark but falling short on methodology-specific metric. By AY2627, students met both the overall and methodology expectations. When combined, the data show that 88% of students (n = 44 out of 50) achieved a Level 3 Proficient rating across all rubric areas, while 82% (n = 41 out of 50) achieved a Level 4 Accomplished rating on the methodology section. Despite this improvement, the aggregated results for ENVS 3150 did not fully meet the established performance expectation for this assessment cycle.
***Action Plan:**	The outcomes from this assessment cycle demonstrate positive progress in students' ability to conduct scientific research. The interventions implemented were well received by both students and faculty and resulted in measurable improvements in student performance. For the next assessment cycle, two potential projects are recommended. 1. Develop a separate performance expectation specifically targeting data analysis skills within the ENVS 3150 capstone rubric. 2. Some faculty have indicated concerns about students ability to write testable hypotheses without substantial instructor support. It is recommended that additional content be added to ENVS 2790 to include scaffolded hypothesis-writing assignments with peer review and faculty feedback at multiple points throughout the semester. A performance expectation could then be developed using the final project rubric to measure its impact.

Figure 18. Academic Assessment Report

Appendix H. Academic Assessment Plan

Academic Assessment Cycle Worksheet – Year 1 Planning Example

This sheet is designed to capture your assessment activities for the current cycle year. Use it to document your activities before entering them into Xitracs. Cells marked with an asterisk (*) must be entered into Xitracs. For guidance on completing a field, hover over the text to view instructions.

Unit Information	
Program Name:	Bachelor of Science in Environmental Science
***Program Description:**	The Bachelor of Science in Environmental Science is an interdisciplinary program that prepares students to address complex environmental challenges through scientific inquiry, field-based research, and policy analysis. Students gain expertise in ecology, environmental chemistry, geographic information systems, and sustainability practices.
***Program Mission:**	To educate and empower the next generation of environmental scientists and stewards who will apply scientific knowledge, critical thinking, and ethical decision-making to promote environmental sustainability and address local and global environmental challenges.
Academic Year:	AY2425

Program Learning Outcome 1				
***Program Learning Outcome:**	Students will demonstrate the ability to design and conduct scientific research by formulating testable hypotheses, selecting appropriate methodologies, and collecting and analyzing environmental data using field and laboratory techniques.		***Cycle Year:** Planning (Yr1)	
***Course**	***Assessment Method**	***Performance Expectation**	***Met/Not Met**	***Results**
ENVS 2790 - Research Methods in Environmental Science	A subset of 8 embedded exam questions on the final examination specifically written to assess research design competency	At least 75% of students will score 70% or higher on the 8 exam questions	Planning year, no data collected yet	An initial review of historical exam data indicates that 67% of our students are scoring 70% or higher on the 8 exam questions
ENVS 3150 - Senior Capstone Research Project	Capstone research paper rubric: the rubric uses a 5-point scale (1=Unsatisfactory, 2=Developing, 3=Proficient, 4=Accomplished, 5=Exemplary)	At least 80% of students will score 3 (Proficient) across all areas of the rubric; 85% will score a 4 (Accomplished) on the methodology section of the rubric	Planning year, no data collected yet	Planning year, no data collected yet
***Analysis & Findings:**	Over the course of the year, four faculty meetings were held with participation from instructors of our senior-level program courses. During these meetings, the curriculum map was reviewed, and ENVS 2790 and ENVS 3150 were identified as key courses for assessing this program learning objective. An initial review of ENVS 2790 indicated that students are approaching, but not yet achieving, a passing score on the eight embedded questions measuring scientific research skills. In ENVS 3150, our capstone course, faculty reviewed the project parameters and rubric and reached consensus that most students should demonstrate proficiency across all rubric areas, with strength expected in the methods section. Planned interventions to assist in achieving this cycle's performance expectations are detailed in the action plan.			
***Action Plan:**	Beginning in Fall 2025, faculty will create explicit connections in lectures between ENVS 2790 (Research Methods in Environmental Science) and ENVS 3005 (Environmental Data Analysis) to strengthen the integration of research design and statistical analysis skills through coordinated assignments. ENVS 2790 will also be revised to incorporate additional hands-on research design activities. As part of these revisions, students will be required to develop a mini-research proposal that includes detailed justification of their chosen methodology. The impact of these two interventions will be assessed over the following two academic years, with data collected to evaluate their effectiveness in improving student learning outcomes. These interventions aim to strengthen students' research methodology skills and equip them with the essential competencies required for success after graduation.			

Figure 19. Academic Assessment Plan

Glossary

Assessment: a systematic process of gathering and interpreting information relevant to your objective and operations in order to evaluate performance and make improvements.

Continuous improvement: ongoing planning, evaluation, and change with the intent to improve upon the effectiveness of meeting a unit or program's mission, achieving or reaching the University's vision, and thereby delivering a higher quality experience for all institutional stakeholders.

Course Learning Outcome (CLO): the desired skill, knowledge, or ability resulting from a course's content and instruction.

Course Objective: the specific content or skills the course is designed to transmit; the course's function in the program curriculum.

Formative assessment: assessment conducted at the beginning or middle of the course or program.

HLC: the Higher Learning Commission; the regional accrediting body that Florida Poly is currently seeking accreditation under.

Institutional Effectiveness (IE): the systematic, explicit, and documented process of measuring institutional performance against mission in all aspects of an institution (*Resource Manual*, 2nd ed, rev. 2012)

Mission Statement: a description of what the institution or unit does and for whom.

Operational Plan: A plan that breaks down the broader priorities as outlined in a strategic plan into annual goals, objectives, and tasks to be attained within a shorter time period (e.g., 1-year). The operational plan helps to inform budget planning.

Outcomes: the consequence of learning in a course or program (e.g., because of the course content, students will be able to do X).

Outcome-based objective: measure the result of some activity: we do X and Y occurs. The measurement is not based on the action taken but on the intended effect relative to a baseline or benchmark likely to result from the action.

Outputs: how much/how many produced from work-related processes.

Process objectives: quality of the service or function performed. Rather than the intended effect, they measure improvement in processes such as reduced cost, greater accuracy, efficiency, or another desirable outcome.

Program Educational Objective (PEO): statement with respect to what graduates of the program are expected to achieve within a few years of graduation.

Program Learning Outcome (PLO): the desired skill, knowledge, or ability resulting from a program's content and instruction.

SACSCOC: the Southern Association of Colleges and Schools Commission on Colleges; the regional accrediting body that accredits Florida Poly.

Satisfaction objective: an objective centered on the satisfaction of clients and stakeholders.

Strategic Plan: A plan that articulates a desired level of performance or attainment for an institution within a defined period of time, typically 5-years. A plan focuses on critical aspects of an institution that best help it to deliver its mission and achieve its vision.

Strategic Planning: A systematic process of gathering data and stakeholder input to articulate or reaffirm an institution's mission and vision and articulate a plan for the organization's future.

Summative assessment: conducted as an overall evaluation of programs and services for the purposes of accountability, decision-making, resource allocation and meeting regulatory compliance.

Vision Statement: a statement that expresses what a unit, program, or institution hopes to be at some point in the future.