

# Student Learning Outcome Assessment Handbook

February 2013 Office of Undergraduate Studies <u>www.utpa.edu/ugs</u>

Acknowledgements:

This handbook was adapted, with permission, from the UTEP Student Learning Outcome Assessment Handbook. Parts of this handbook have been adapted or adopted from additional sources described throughout the document.

# **Table of Contents**

Academic Assessment at UTPA	3
Student Learning Outcome Assessment	4
Misconceptions about Assessment	5
The Roles of Faculty, Chairs, Deans, and the Office of Undergraduate Studies	6
Assessment Reports and Records	7
Why TracDat?	8
Recommended Assessment Calendar	8
Step 1. Revisit the Mission and General Goals for your Program	11
Worksheet for Step 1	14
Step 2. Identify the 3-6 most important student learning outcomes	15
Worksheet for Step 2	18
Step 3. Identify where in the curriculum your learning outcomes and objective	S
are covered: Curriculum mapping	21
Worksheet for Step 3	22
Step 4. Identify assessment methods and techniques	25
Worksheet for Step 4	29
Step 5. Collect, tabulate, analyze the data, and report the results	31
Step 6. Using the evaluation results: The most important step	34

# Appendices

A:	Rubric for Evaluating Program Assessment Plans	37
B:	Rubric for Evaluating Program Assessment Progress	38
C:	Sample Assessment Plan	39
D:	Sample Assessment Report ("4-Column")	45
E:	Sample Assessment Summary	50
F:	Rubric for Evaluating Assessment Summaries and Reports	52

Authentic engagement in improving our instructional practices based on assessment of student learning reflects the value that UTPA faculty place on excellent teaching guided by what our students are *actually* learning from us, rather than our beliefs about what they are learning. It represents an honest evaluation of our students' educational experience and our best hope to continue to build a truly excellent university experience with them. The purpose of this handbook is to help academic programs understand student learning outcome assessment principles and develop effective and efficient assessment processes. This handbook briefly introduces the various steps in the process of developing assessment plans and provides recommendations, example worksheets, and matrices that departments and programs can use to complete each of the steps. Appendices A and B contain rubrics developed at California Polytechnic State University that can be used to evaluate the quality of student learning outcomes and the progress of the SLO development process.

# Academic Assessment at UTPA

Academic assessment at UTPA consists of three major components. First, each academic department and program conducts regular **Student Learning Outcome** (SLO) assessments of each academic major. This is a continuous assessment of student performance on the student learning outcomes for each undergraduate and graduate program for use by the program in continuous improvement of instruction and curriculum. Its primary purpose is to give program faculty the information they need to help our students learn what is important in the discipline.

The second component of academic assessment is the academic **program review** that occurs in cycles of 7 years for all academic units. Each year a group of academic units will complete a comprehensive self-study of their undergraduate and graduate programs. These self-studies will be reviewed be external reviewers and internally as well. Programs that are externally accredited will not be asked to separately engage in additional program review. Prior to 2012 program review outside of program accreditation occurred only within the university. Campus-wide external program review began in 2012. This handbook does not cover program review processes.

Finally, UTPA has committed to a regular review of the university **core curriculum**. The responsibility to lead this effort lies with the Office of Undergraduate Studies in cooperation with departments and faculty that offer courses in the core curriculum and the campus community broadly. This handbook does not cover core curriculum review.

The Southern Association of Colleges and Schools (SACS) requirements include the following standards that are relevant to academic assessment (note that only relevant items are presented here; see <a href="http://www.sacscoc.org/pdf/2012PrinciplesOfAcreditation.pdf">http://www.sacscoc.org/pdf/2012PrinciplesOfAcreditation.pdf</a> for a complete list):

• 3.3.1 The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of improvement based on analysis of the results in each of the following areas:

3.3.1.1 Educational programs, to include student learning outcomes

- 3.4.10 The institution places primary responsibility for the content, quality, and effectiveness of the curriculum with its faculty.
- 3.5.1 The institution identifies college-level general education competencies and the extent to which graduates have attained them.

#### **Student Learning Outcome Assessment**

Student learning outcomes are defined as the accumulated *knowledge, skills,* and *attitudes* students develop during a course of study. As experts in their disciplines, UTPA faculty determine the appropriate outcomes for their programs. SLO assessment is the process of collecting and reviewing SLO data and using that information to improve an academic program. It is the application of research methodology to the teaching setting so that decisions about curriculum and instruction can be made on a firm foundation. SLO assessment occurs in a recurring cycle, as illustrated below.

# Establish Learning Outcomes

Program faculty create clear, measureable, learning outcomes for the program that follow from the program and university mission and goals.

Use Results for Program

Improvement

Program faculty share and discuss

understand and improve student

learning outcome results to

learning.

# Design/Modify the Assessment Plan

Program faculty construct a plan for assessing evidence of student learning across the program, modifying their plan as necessary.

SLO

Assessment

Cycle

# Provide Learning Opportunities

The program curriculum provides sufficient opportunities for students to master learning outcomes.

# Assess Student Learning

Program faculty systematically gather, analyze, and interpret student learning evidence.

#### **Misconceptions about Assessment**

Numerous misconceptions about SLO assessment persist among faculty and administrators in higher education. The University of Central Florida's Academic Program Assessment Handbook lists several misconceptions about student learning assessment; these misconceptions also exist at UTPA and are listed here.

- 1. The results of assessment will be used to evaluate faculty performance on merit or tenure and promotion evaluations. This is *not* the case. Student learning assessment solely serves to provide data about the quality of academic programs that will help faculty improve them where necessary.
- 2. Our program is working well, the students are learning, and therefore we don't need to bother with assessment. While individual faculty may know that students are learning in their classes, most programs have no system in place to determine how effective their entire curriculum is in terms of student learning. Even if faculty believe that the quality of their program is good, often that opinion is based on anecdotal evidence or "gut feeling" rather than valid and reliable assessments. Most likely there is room for improvement. Continuous assessment to determine how to best improve the educational experience of our students must be an integral part of departmental activities. Rather than trusting unsubstantiated claims by programs that they do what they say they do, external stakeholders such as SACS and the Texas Higher Education Coordinating Board (THECB) now require data that provide evidence for those claims. To retain our institutional accreditation, carefully assessing *all* our programs is the only option. We can no longer simply claim we do certain things and have no evidence to show that we actually do them.
- 3. We will just assign a single faculty member to plan and conduct the assessment. It is a good idea to have one or two faculty members take responsibility and lead the assessment process for the department/program, but it is important that everyone teaching in those programs is involved at all stages of the process. Each person contributes different perspectives and ideas for improving the academic program and the courses they teach each contribute to the curriculum in a unique way.
- 4. Administration will use the results to eliminate departments and programs. This is a "formative" assessment process that is designed to provide substantive feedback to help improve programs through assessment by their own faculty, not the administration. Program assessment is not a "summative" evaluation aimed at eliminating programs; at UTPA we aim to grow our programs, not to eliminate them.
- 5. Assessment is a waste of our time and does not benefit the program or the students. All programs established learning outcomes for our last SACS reaffirmation of accreditation process in 2007, but some programs have not been consistent in collecting and using the information and have not seen a benefit to their programs because of that. Programs that have been consistent in collecting and using student learning information have in many cases made concrete improvements to their programs that have improved student learning. When you engage with the SLO process in good faith, you will see benefits.

- 6. We will just do assessment in the year SACS comes back. In the past this may have worked, but in the present it no longer does. SACS demands of its accredited programs that they engage in ongoing and continuous assessment, and requires updates every 5 years demonstrating that continuous assessment is occurring. High quality continuous student learning assessment and improvement reflects how UTPA values student learning all the time, not just every few years.
- 7. Student learning assessment sounds like a good idea, but it is time consuming and complex. The most time consuming part is formulating relevant and clear learning outcomes that are the essential goals of your program. These will drive the measurement process and data collection methods. Once that process has been developed, the collection and evaluation of the data should take little time beyond the everyday activities of the faculty.

#### The Roles of Faculty, Chairs, Deans, and the Office of Undergraduate Studies

Department Chairs and College Deans have supervisory responsibility over assessment practices and reporting, just as they do over other important academic activities within departments. However the greatest responsibility for student learning outcome assessment resides in the faculty within academic departments and programs. To ensure successful implementation, departments often identify one or more people as Assessment Coordinator(s) or as an Assessment Committee. In most cases it works best if such a coordinator is not the Department Chair or the Program Director. It is important that someone in addition to the Chair or Director can represent the department on issues related to SLO assessment. The Assessment Coordinator or Committee ensures that assessments are conducted at the appropriate time and in the appropriate manner, and that data is compiled, analyzed, and presented for evaluation by the faculty teaching in the program. The Assessment Coordinator or Committee also monitors the implementation of improvements and ensures that their effects are measured. The Assessment Coordinator or Committee and Department Chair ensure that the data are entered in Tracdat and the necessary reports are submitted in a timely fashion.

The Office of Undergraduate Studies has the primary responsibility for coordinating academic assessment at UTPA. The Vice Provost collects all assessment plans developed by all academic programs at UTPA and facilitates the assessment process by providing various electronic tools, most notably Tracdat. These tools allow Chairs, Deans, and the Office of Undergraduate Studies to respond rapidly to inquiries and communicate the results of assessments and reviews on a regular basis to the President, SACS, the THECB, and the public at large. These tools also create a persistent record of assessment activities within a program. Even if faculty closely involved in assessment within the department change or leave the university, assessment information is always accessible within Tracdat and is not lost or misplaced when faculty change responsibilities.

#### **Assessment Reports and Records**

UTPA uses three types of assessment reports for programs to document and track their assessment activities: Assessment Plans, Assessment Reports, and Assessment Summaries.

**Assessment Plan.** The Assessment Plan describes the process and method that a program uses to assess student learning outcomes. It should include a brief description of the program SLOs and the method used to assess each SLO including sample population, instruments, approach to and frequency of data collection, and scoring of the instruments. The program's approach to sharing the results of the assessment and using the results should also be briefly outlined. If assessment activities vary from year to year, an assessment calendar should also be included so that it is clear when each assessment activity should occur. Other information important to the program's approach to asperson to assessment should also be included when appropriate. Assessment Plans should be kept current and revised when the approach to assessment in the department changes. They are stored in the "document repository" section of Tracdat. A sample Assessment Plan is found in Appendix C.

**Assessment Report.** The Assessment Report has four columns: Student Learning Outcomes, SLO Means of Assessment and Criteria for Success, SLO Assessment Results, and Use of Result and Follow-Up. Program assessment faculty should regularly enter updated assessment results and use of results/follow-up in Tracdat, also updating SLOs and means of assessment as necessary. The Assessment Report can be easily generated within Tracdat with a few mouse clicks after current data is entered. Most programs should enter assessment results each semester. Programs who admit students only once a year and so are on yearly cycles may choose to enter their results once a year. If entry of results and use of results is current, departments do not need to generate Assessment Reports for submission each semester. They can be instead accessed directly by the Dean and/or Vice Provost as needed. However they are submitted in conjunction with Assessment Summaries. A sample Assessment Report is found in Appendix D.

Assessment Summary. The Assessment Summary is a yearly report due in fall semester in which programs briefly summarize two items: highlights of important results of SLO assessment over the last two years, and highlights of how important results have been used to improve student learning. Assessment Reports covering the last two years are attached to the Assessment Summary as well as minutes from faculty meetings in which assessment results were discussed with program faculty. The Assessment Summary routes to the Chair, Dean, and Vice Provost. The purpose of the Assessment Summary is to ensure administrative engagement and oversight over SLO assessment. SLO assessment in many ways should be closely tied to programmatic activities and goals, which Deans and Chairs also oversee. Although the form is due annually, two years of results are included so that programs can identify improvements that have been a result of SLO assessment Summary is found in Appendix E. The Assessment Summary with attached Assessment Reports may be scored according to the rubric found in Appendix F. This rubric may be used internally by the program or by different levels of review, such as the Vice Provost level,

for feedback to the program that is intended to assist them with improving their assessment practices. Assessment Summaries and any associated completed rubrics should be stored in the "document repository" section of Tracdat.

**Other Records to Store.** Each program has a number of folders available in the document repository section of Tracdat with names to cue programs on which items to store. Programs also have the option of adding additional folders. In addition to the reports described above, it is recommended that programs store items that are important for the program to have a stable copy available over time such as *rubrics* that are used in scoring assessment measures or copies of *surveys or tests* used in assessment. Additionally, it is important for institutional memory for us to maintain documentation of how assessment develops and changes over time in programs so it is highly recommended that programs archive *faculty meeting minutes* in which assessment is an important topic or in which important decisions are made. That way when faculty who are closely involved in assessment change in programs, a record exists of why the program is approaching assessment in the way that it is. This enables new faculty to continue to move forward instead of unintentionally going backward in assessment practices. Our accreditors also may ask us to demonstrate faculty involvement.

# Why Tracdat?

Tracdat is the electronic tool that UTPA uses to enter and archive SLO assessment materials and results. It is a relatively straightforward program to use, but for faculty who only are accessing it a limited number of times a year, it can sometimes be difficult to remember exactly how to use it. The Office of Undergraduate Studies is always available to provide support in using Tracdat and will be posting video tutorials to assist faculty with using all of the features. Of course departments are welcome to use any tools that they find most useful in internally tracking student learning outcomes and communicating those results to their faculty. However Tracdat is the repository for the university so tools internal to the departments in keeping full records within Tracdat is that it is a very stable storage mechanism. Even if faculty closely involved in assessment within the department change or leave the university, assessment information is always accessible within Tracdat and is not lost or misplaced when faculty change responsibilities.

Although programs currently primarily use Tracdat for program level student learning assessment, Tracdat can also be used for course-based assessment and has internal curriculum mapping tools to link those course-based assessment results to program level assessment. If your program is interested in using those features, contact the Office of Undergraduate Studies for assistance.

## **Recommended Assessment Calendar**

Although assessment activities vary from department to department, the institutional expectations for SLO assessment follow this general calendar. Bolded due dates are required, but may shift slightly from year to year. Programs that function on a yearly student cohort model and

who thus only engage in assessment once a year may disregard the fall semester deadlines. Of course program needs may vary from this calendar and may involve more intense activities during periods of programmatic SLO revision.

Activity	Date
Assessment results from spring semester are discussed with faculty including plans for improvement. Minutes from meetings are uploaded to Tracdat.	Summer, if a faculty meeting or retreat occurs, otherwise September
SLO assessment activities and expectations are shared with new Fall hires, including adjunct faculty.	September or prior to hiring and syllabus construction if methods of assessment call for that
Program Assessment Coordinator and/or Committee reviews Assessment Plan to ensure that it is still current. A current copy is maintained in the document repository in Tracdat.	September
SLO Assessment Summary with attached Assessment Report covering two years of assessment activity and faculty meeting minutes due to the college Dean. Dean later routes to Vice Provost.	October 15
SLO data collection occurs for fall semester.	During fall semester, as appropriate to method of assessment
SLO assessment results and use of results entered in Tracdat for Fall semester. Use of results is reviewed for the previous Spring and updated if more activities have developed as a result of those data.	January 15
Assessment results from fall semester are discussed with faculty including plans for improvement. Minutes for meetings are uploaded to Tracdat.	February
SLO assessment activities and expectations are shared with new Spring hires, including adjuncts.	February or prior to hiring and syllabus construction if methods of assessment call for that
SLO data collection occurs for spring semester.	During spring semester, as appropriate to method of assessment
SLO assessment results and use of results entered in TRACDAT for Spring semester. Use of results is reviewed for the previous Fall and updated if more activities have developed as a result of those data.	June 15
SLO assessment activities and expectations are shared with	May or prior to hiring and

new Summer hires, including adjuncts.

SLO data collection occurs for summer sessions, if the program collects data during the summer.

syllabus construction if methods of assessment call for that During summer sessions, as appropriate to program Assessment Plan

The remainder of this Handbook is designed to assist programs in further developing or reviewing their Student Learning Outcome assessment process. Seven steps are outlined, including recommendations for each step, example worksheets which can be used to guide faculty in the work of each step, and matrices that programs can use to complete each of the steps. Workshops will be provided by the Office of Undergraduate Studies on each step on an occasional basis. Personnel from that office are also available to facilitate planning processes within departments on request.

# Step 1. Revisit the Mission and General Goals for your Program.

A mission is a broad statement of what your program does, and for whom it does it. It should provide a clear description of the purpose of the program and reflect how the program contributes to the education and careers of students graduating from the program. The mission of your department or program should be aligned with the College and University missions, but be specific to your program's unique identity.

It is important that everyone in your department or program, including your students, is very clear about what you are collectively trying to achieve. The mission should state what you do and for whom you do it. It should stir excitement and garner commitment from everyone, and guide you in the development of your student learning outcomes. Revision of your mission may be necessary because the discipline has changed over time, you have new faculty, new resources, a revised strategic plan, etc.

# **Program Mission Statements of Various Qualities**<sup>1</sup>

**Poor:** The mission of the Paso del Norte Physical Activity Education Program is to provide a broad education of the benefits of physical activity.

The statement is very vague and does not distinguish this particular program from other physical activity programs. It lacks information about the primary functions of the program and does not identify the stakeholders. Additionally, there is no indication that the program's mission is aligned with the university's mission.

**Better:** The mission of Paso del Norte Physical Activity Education Program is to educate students from diverse backgrounds in the principles of physical activity education that will prepare them for both current and future professional challenges in physical activity education.

This statement is better because it identifies the stakeholders as well as a primary function of the program. However, it still is not a distinctive statement that sets the program apart from others.

**Best:** The mission of Paso del Norte Physical Activity Education Program bachelor's degree program is to educate students from diverse backgrounds in the fundamental skills, knowledge, and practice of Physical Activity Education through carefully designed courses and internships in order to prepare them for (1) Physical Activity Education positions in service organizations, schools, and private industries and (2) graduate programs in Physical Activity Education or related disciplines. The program promotes scholarship, service and a spirit of innovation and entrepreneurship in an environment that is inclusive, diverse, and collaborative.

This statement includes a purpose, the primary functions of the program, the primary

<sup>&</sup>lt;sup>1</sup> Adapted from University of Central Florida Academic Program Assessment Handbook, June 2008 Edition.

stakeholders, it is distinct, and supports the university mission. It is not brief and would be difficult to memorize, but a slogan (or brand) that captures the essence of this mission may cover that.

# **Examples of Mission Statements at UTPA**

The following mission statements are examples from various academic departments and programs at UTPA and other universities. Some are very detailed and others are not. Since the true value of a mission statement is its unique application by the department or program, these statements are only samples to be examined and generate ideas. They are not an endorsement. The UTPA mission is listed to help faculty review their departmental and program missions, as they should be aligned with the university's mission.

**The University of Texas-Pan American Mission Statement:** The University of Texas-Pan American serves the social, economic, research and, most importantly, the educational needs of the rapidly growing transnational, culturally diverse population of South Texas. The University creates, preserves, and transmits knowledge that advances the region, state, and nation and that builds prosperity through entrepreneurship and commercialization. In a supportive environment dedicated to student learning, the University provides quality instruction in rigorous academic programs that lead to bachelor's, master's and doctoral degrees as well as professional certificates. Through teaching, research, creative activity, and public services, the University prepares students to be socially conscious citizens and transformative leaders.

**Computer Engineering Program Mission Statement:** The Computer Engineering Program is a joint program between the Department of Computer Science and the Department of Electrical Engineering. The Computer Engineering program prepares students to pursue advanced study or to enter the dynamic and interdisciplinary field that continues to experience rapid growth and impacts many aspects of human endeavor. The program is designed to provide students with a balanced perspective of hardware and software, and the analysis, design, and implementation techniques for integrated computer systems. The program has a common core of courses from computer science and electrical engineering, and advanced elective courses to provide the student with the opportunity to support individual interests and provide further depth and breadth to their degree.

In order to provide an awareness of current and emerging industrial practice, the departments will encourage students to participate in professional student organizations, internships or co-op experiences, and scholarly activities including supervised research.

Faculty will be readily accessible, will continuously strive to improve and design an up-to-date curriculum, and share their enthusiasm for enhancing their knowledge and research in the computer engineering field.

**Department of Criminal Justice Mission Statement:** The mission of the Criminal Justice Department is to impart knowledge and promote critical thinking about the crime problem, and its control through criminal justice institutions and public cooperation. Students receive

comprehensive criminal justice education with courses taken in the areas of criminal law, criminology, policing, courts, corrections, and crime prevention, in the context of general and liberal arts education, with background in the social sciences. The main aim of the department is to help students develop the knowledge and analytical abilities to become agents of change in criminal justice organizations and serve well the communities in which they are located.

**Department of Music and Dance Mission Statement:** The Department of Music and Dance of the University of Texas-Pan American is committed (1) to providing high-quality training in the areas of music education, music performance, and ethnomusicology at the undergraduate and graduate levels for students pursuing careers in music, (2) to offering a broad musical education in the liberal arts tradition to general students, and (3) to enhancing the multi-cultural musical environment of the community through the talents and expertise of its faculty and students.

The Department of Music and Dance of the University of Texas-Pan American seeks to fulfill its responsibilities through excellent teaching; appropriate course offerings; a wide variety of multicultural and multi-lingual performance opportunities that reflect the international character of the community; scholarly and creative contributions to the academic and general communities; and current equipment and facilities in which to perform those activities.

**Department of Curriculum and Instruction Mission and Goals:** Our Department mission and goals are closely aligned with those of the University and College of Education. Our mission is to create pathways and opportunities for students who want to become effective and visionary educators; to facilitate and support our students' mission to educate the next generation of leaders with the similar vitality and enthusiasm for lifelong learning. Additionally, we recognize the value of educational research and accordingly, support the research efforts of faculty and students in an effort to create a stimulating, caring, and respectful environment for learning and advancing new knowledge.

## Our Goals

1. To provide students with world-class programs that enable them to become knowledgeable, effective, creative, and innovative leaders, educators, and advocates for their students;

2. To facilitate our students in successfully completing their degrees and certification requirements in a timely manner;

3. To build partnerships with schools that enable productive relationships between and amongst teachers, students, and university faculty in order to advance new knowledge and understandings through collaboration and research; and

4. To engage in educational research that is poised to make a substantial contribution in the corresponding academic fields or disciplines.

# Worksheet for Step 1

All departments and programs at UTPA should already have a mission. This worksheet can help you determine if your mission statement is effective and clearly in line with the current activities of your department or program. Stakeholders (consider also asking students, alumni, employers) complete this exercise individually first, after which you can identify the degree of agreement or disagreement on each item. You can then compare notes, discuss the differences, and work on a possible revision. Be aware that revising the mission can take quite some time and probably should be done in a dedicated workshop or retreat.

Write (or copy and paste) your mission statement here and then complete the checklist:

Complete this checklist by placing a checkmark in the "Yes" or "No" column.

Criteria	Yes	No
Does your mission clearly state the purpose of your program?		
Does it indicate the primary functions or activities of your program?		
Does it indicate for whom you should do it?		
Is your mission statement brief and memorable?		
Is your mission statement distinctive, unique to your program?		
Does it clearly support the College and UTPA missions?		

List reasons for your choices here and discuss them with other stakeholders.

# Step 2. Identify the 3-6 most important student learning outcomes.

As a department or program, you value something. When students decide to enter your major they have certain expectations about your program and the knowledge and skills they will acquire. By publishing clearly written learning outcomes (a.k.a. learning goals), you present the students with clear statements about what they can expect to achieve when they complete your program successfully.

During Step 2 you should again invite input from all stakeholders in your program, including staff, students, alumni and professionals in the community who will employ your graduates to create the most relevant learning outcomes possible.

As a unit, agree on 3 to 6 key student learning outcomes that answer the question: "What will students who graduate from our program be able to *DO* intellectually, physically, and emotionally?" When determining undergraduate versus graduate student learning outcomes, there should also be some evidence that the graduate program SLOs represent a deeper or more complex understanding of the field.

Drafting student learning outcomes can be difficult. It is challenging to reach the level of specificity required in a relevant, measurable student learning outcome. Therefore, faculty members might want to plan a mini-retreat or set aside specific meetings that center solely on formulating the learning outcomes so that undivided attention can be focused on this task for a period of time. To begin drafting the program's student learning outcomes, it may be helpful to start with a very general phrasing of the outcome, and then get more specific with each revision. It may take several iterations to progress from lofty, idealistic student learning goals to one or more specific, measurable outcomes.

Learning outcomes should distinguish the program's graduates from other University students. You can achieve this by clearly answering the question: "What knowledge, skills, or attitudes distinguish the graduates of our program from other students on campus or from other graduates of a similar program at another campus?" To arrive at answers to this question, it may be helpful for faculty to identify what constitutes the "ideal student." The worksheet for this step can be used as a basis for discussions and work sessions on the various questions about skills, knowledge, values and attitudes that you believe this student has acquired or strengthened as a result of your program. Individual participants should be given some time to think through these items first before continuing the discussion in either small groups or with the entire body present. Having small groups discuss the items first and then report them to the larger group usually leads to richer results.

Though it should go without saying, identify SLOs that are important to the program. Remember that student learning outcome assessment is to help the program improve student learning, not to

put on a show for some outside power. Identify and assess what the faculty in your program value so that the results will be useful to you. *Don't waste time on SLOs you think other people want to see if it is not relevant to your program.* 

Here are some examples of learning outcomes from A Program Guide for Outcomes Assessment at Geneva College (April 2000) as presented in the UCF Handbook:<sup>2</sup>

# **Poor Learning Outcome Statement**: Students should know the historically important systems of psychology.

This is poor because it says neither what systems nor what information about each system students should know. Are they supposed to know everything about them or just names? Should students be able recognize the names, recite the central ideas, and/or criticize the assumptions?

**Better Learning Outcome Statement**: Students should understand the psychoanalytic, Gestalt, behaviorist, humanistic, and cognitive approaches to psychology.

This is better because it says what theories students should know, but it still does not detail exactly what they should know about each theory, or how deeply they should understand whatever it is they should understand.

**Best Learning Outcome Statement**: Students should be able to recognize and articulate the foundational assumptions, central ideas, and dominant criticisms of the psychoanalytic, Gestalt, behaviorist, humanistic, and cognitive approaches to psychology.

This is the clearest and most specific statement of the three examples. It provides even beginning students an understandable and very specific target to aim for. It provides faculty with a reasonable standard against which they can compare actual student performance.

A easy to use guide to writing learning outcomes can be found at the Indiana University-Purdue University Indianapolis website

http://iupui.campusguides.com/content.php?pid=250935&sid=2293893.

<sup>&</sup>lt;sup>2</sup> Adapted from University of Central Florida Academic Program Assessment Handbook, June 2008 Edition.

**Examples of Student Learning Outcomes at UTPA:** The examples listed below do not necessarily represent exemplars, but are intended for to be used for discussion purposes.

**Bachelor's of Business Administration SLOs** (e.g. Assurances of Learning in the nomenclature of their accrediting body):

Learning Goal 1: BBA graduates will be able to critically analyze business issues and apply business functional area knowledge to solve the problems. The learning objectives for learning goal one are:

Learning Objective 1.1. Understand basic concepts of functional business areas,

Learning Objective 1.2. Critically analyze and evaluate business situations and recommend feasible options to solve business problems.

Learning Goal 2: BBA graduates will develop professional attitudes and have an appreciation for the role of business in a free enterprise economy. The learning objectives for learning goal 2 are:

Learning Objective 2.1. Understand and demonstrate professionalism and professional attitudes through internships, mock interviews, and membership in student organizations.

Learning Objective 2.2. Understand concepts of free enterprise and other economic structures.

# B.S. in Clinical Lab Sciences

- Demonstrate cognitive abilities appropriate to the entry level practitioner (assessed through pass rate on the National Certification Exam necessary for functioning in the field).
- Demonstrate the technical competencies expected of an entry level practitioner.
- Demonstrate affective behaviors which allow them to function as part of the healthcare team.
- Demonstrate competency which will enable them to readily find employment or pursue related professional or graduate education.
- Demonstrate leadership skills that will make them suitable candidates for management or supervisory positions in the future.
- Demonstrate the ability to use information technology to communicate and access patient information.

# Worksheet for Step 2

 Describe the "ideal student" who just graduated from your program in terms of his or her knowledge, skills, values, and attitudes. What would you like this "ideal student" to look like as a result of your curriculum and pedagogy? Try to be as specific and comprehensive as possible when you identify the following:

KNOWLEDGE: What does this "ideal student" know and understand about the disciplinary areas represented in the degree program?

SKILLS: What can this "ideal student" do (physically and/or mentally)?

ATTITUDES/VALUES: What does this "ideal student" value? What attitudes or beliefs does this student hold?

2. Organize the knowledge, skill, and attitude (values) characteristics you identified above into logical groupings. If working with your program on this activity, what patterns do you see in your groupings? Are there any shared ideas/groupings?

3. Now think about which of the characteristics you identified for your "ideal student" can be **directly attributed** to particular learning experiences (projects, class activities, etc.) currently presented to them in your program. If you *cannot* identify experiences to support certain desired characteristics write that down below the table. Expand or shrink the table as needed.

Characteristics of our "Ideal Student"	Corresponding Learning Experiences in our Curriculum

Characteristics not addressed by current learning experiences:

4. Use the work from items 2 and 3 above to either evaluate and revise or reformulate your key learning outcomes. Try to follow the guidelines in the table below.<sup>3</sup>

Student Learning Outcome Characteristics	Yes	No
Our SLOs are aligned with our mission statements and goals.		
Our SLOs are relevant to our discipline.		
Our SLOs clearly indicate the level and type of competence that is required of graduates of our program.		
Our SLOs are written clearly, precisely (just the right level of detail) and unambiguous using action verbs.		
Our SLOs are measurable.		
Our SLOs can be measured by more than one assessment method.		
We have the resources to conduct the necessary measurements of our SLOs.		
Our SLOs are for our program, not a specific course.		
Our SLOs can be understood by our undergraduate students; they are simple, focused statements not a bundle of different things.		
Our SLOs describe intended learning outcomes, not actual outcomes.		
Our SLOs describe learning results, not the learning process.		
We have the resources and capabilities in our program to successfully pursue our learning outcomes.		

Thoughts on revisions of SLOs:

<sup>&</sup>lt;sup>3</sup> Adapted from University of Central Florida Academic Program Assessment Handbook, June 2008 Edition.

# Step 3. Identify where in the curriculum your learning outcomes and objectives are covered: Curriculum mapping.

Once faculty members have decided upon the essential student learning outcomes, they need to identify where in the curriculum and coursework the students receive the opportunities to learn the knowledge, practice the skills, and develop the attitudes and values incorporated in the learning outcomes. It is the faculty's responsibility to ensure that the curriculum and courses are designed to offer students sufficient opportunities to practice the skills and gain the knowledge and attitudes necessary for success. In other words, learning outcomes, assessments, and learning activities within the curriculum need to be tightly integrated.

To start the analysis of the curriculum, create a simple overview of curricular coverage of the learning outcomes by completing a Curriculum Map of Learning Outcomes. The map helps you chart which courses address and assess the program student learning outcomes you developed. As your assessment plan changes, the Assessment Coordinator should update the Map.

# Worksheet for Step 3

# Steps to Complete Your Curriculum Map

- 1. List and number your learning outcomes (expand or shrink as needed):
  - SLO 1:
  - SLO 2:
  - SLO 3:
  - SLO 4:
  - SLO 5:
  - SLO 6:

2. Complete the map. You can do this with the entire faculty on a large flip chart or on a computer projection screen. Alternatively, you can have the faculty complete the map individually and have the Assessment Coordinator compile all the information. Make sure all SLOs are covered at minimum in one course and SLOs that are highly valued by the program are covered at the "very important" level or at the "moderately important" level in several courses (see below).

To complete the map, faculty members place a mark under the student learning outcome that is covered in their class and for which they have an appropriate assessment tool or method. Faculty should indicate whether this learning outcome is **not important** (NI), **somewhat important** (SI), **moderately important** (MI), or **very important** (VI) in each course.

Program:				Date:		
Course	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6

#### **Curriculum Map of Learning Outcomes (expand or shrink as needed)**

Important thoughts about SLO coverage:

- 3. **Redundancies and Gaps.** After collectively reviewing the Curriculum Map and the integration of learning outcomes and their assessments, faculty should look for redundancies and gaps in the coverage of the learning outcomes. Determine whether each and every SLO receives sufficient attention in various courses to ensure that the students experience enough practice opportunities to successfully attain the student learning outcomes. Not every course needs to address multiple learning outcomes; covering all learning outcomes and how this occurs is a function of the entire curriculum.
- 4. **Collecting Data across the Curriculum and Time.** It may be necessary to collect data on several measures across time or in a sequence of key courses or learning experiences to truly document that students achieved your SLOs. This type of measurement can be an excellent demonstration of "value added" to the student's knowledge, skills, and attitudes as a result of your curriculum. Student portfolios are probably the best tool to show progression of competencies, and Alverno College's Diagnostic Digital Portfolio<sup>4</sup> is a great example of an assessment system based on mastery of knowledge and skills using portfolios. Ultimately, when and how to assess is a program decision and should be based on what will provide the most valuable data for program improvement.

<sup>&</sup>lt;sup>4</sup> A demonstration of this approach can be found at <u>http://ddp.alverno.edu/</u>. Retrieved January 3, 2012.

# Step 4. Identify assessment methods and techniques.

This step is designed to help you select strong assessment techniques for your SLOs. Consider the following key principles as you design your means of assessment.

**Don't try to do too much.** Assessment of student learning outcomes can be conducted using many different quantitative and qualitative instruments and methods, and therein lies the danger. Select or develop instruments and methods that are simple to use, require little extra time or effort, and still provide the necessary data for a specific learning outcome, no more and no less.

**Select reliable and valid instruments.** Assessment methods require both reliability and validity. A *reliable* assessment is consistent over time and is relatively free of error due to measurement. For example, a rubric that clearly distinguishes between excellent and good performance is more likely to be used consistently and in the same way by faculty than one that only vaguely distinguishes between excellent and good performance. A *valid* assessment taps directly into the learning outcome you are trying to assess rather than accidentally measuring other concepts, or only assessing a part of the learning outcome. Note that the validity of a measure is dependent on the particular use of the measure. For example, if you design an excellent rubric to assess a written paper assignment in class, it may be a valid assessment of the learning experience in that class. However if you then try to use the exact same rubric as an assessment of a broader SLO, it may not be valid for that use because it may not capture some of the important ideas in that SLO.

**Course grades are (usually) not enough.** It is often asked, "Aren't course grades a satisfactory measure of student performance?" In general, grades have significant short-comings when used as a single measure of assessing student learning.

- A course grade often is a composite of many activities that have little relevance to student learning outcomes (for example, when attendance and turning in assignments on time are part of the grade). A course grade may partially reflect student performance on student learning outcomes, but also be significantly contaminated by other factors, significantly reducing both the reliability and validity of the measurement.
- Grading is often approached differently by individual faculty members even when teaching different sections of the same class and potentially using the same assignments because of individual variations in how tools are used and standards are interpreted. This negatively affects the reliability of the grade.
- Student learning outcomes sometimes span multiple courses, and individual courses often do not directly align with the program's learning outcomes. This negatively affects the validity of the measurement.
- If a course addresses multiple learning outcomes and contains assessments for each of

those, the course grade is a composite and lacks the detail necessary to evaluate performance on the individual learning outcomes. In this case, results of individual assessments for each learning outcome should be used.

**Use course-embedded assessments.** Even though the unit of analysis for assessing student learning outcomes is the program, not individual courses, faculty, or students, assessment of programs usually works best when embedded within courses or other significant program activities. The better the integration of the assessments into existing student work (e.g. course activities/projects/assessments, capstone projects, experiential/service learning components of the program, etc.), the greater the likelihood your assessment activities will generate information that will be useful to you. Students also often take these assignments more seriously and perform better than they might on a standardized test or other assessment given outside of class. Identify and critically examine the work products your students already produce as part of the program's curriculum, and determine which of these are relevant, valid, and reliable assessments of your student learning outcomes.

**Use a mix of assessment methods, emphasizing direct assessment.** Using multiple measures of different types provides richer data that enable you to put greater trust in your final conclusions. Each type of measurement has advantages and disadvantages. Using several different types helps to compensate for each method's weaknesses and provides a greater depth of information. There are two general categories of SLO assessment methods. Direct methods of SLO assessment involve an evaluation of work produced by students that illustrates their learning. Indirect methods of SLO assessment involve assessment involve an evaluation of students', or other stakeholders', perceptions of their learning. Direct methods of assessment generally provide stronger evidence of learning. Examples of direct and indirect methods are listed below (adapted from <a href="http://assessment.tamu.edu/resources/methods.html">http://assessment.tamu.edu/resources/methods.html</a>).

Direct Methods of Assessing Student Learning	Indirect Methods of Assessing Student Learning
Pre and posttests	Student survey
Course-embedded assessment (e.g.,	Exit interviews
homework assignment; essays, locally	Alumni survey
developed tests)	Employer survey
Grading with criteria or rubrics	Focus groups
Comprehensive exams or capstone projects	Job placement statistics
National Major Field Achievement Tests	Graduation and retention rates
Certification exams, licensure exams	Percentage of students who study
Senior thesis or major project	abroad, present in professional
Portfolio evaluation	settings, or complete other optional
Case studies	experiences valued by the program
Reflective journals	
Juried review of performances/exhibitions	
Internship and clinical evaluation	

Indirect methods of assessment can supplement your evidence of student learning. Although direct methods of assessment are typically preferred, indirect methods of assessing student learning can provide valuable supplementary information. Surveys are particularly good for revealing students' attitudes and opinions about what they have learned and are useful to evaluate outcomes that are realized in students' post-college careers. In many cases, employer ratings of recent graduates on specific items of interest may also provide valuable information. Occasionally some SLOs may be better assessed through the use of indirect methods than direct methods. In particular, if an SLO specifically refers to what students will value or an attitude that they will hold, a survey of students may be the best indicator of that SLO.

Create a scoring rubric for qualitative assessments. Many faculty members consider using rubrics when looking for ways to grade, give feedback, and assess learning outcomes<sup>5</sup>; they clarify criteria and standards and are an important tool for evaluating student work, especially if it is difficult to create objective tests. Many resources exist on how to construct a valid and reliable rubric that can be used to assign a grade to student work.

A rubric helps address several important issues:

- 1. It identifies the key elements (criteria) of the work that will be judged.
- 2. It indicates the differences between excellent, good, average and poor work (standards) on each criteria.
- 3. It ensures that judgments (or scores) of work or performance are assigned using consistent criteria even if multiple raters/judges are being used.
- 4. It helps both performers and judges be more clear about what is expected for excellence.

Rubrics can be designed as discrete assessments of single learning experiences or as assessments that track a student's performance across several courses or learning experiences and show improvements in performance over time. In this case the rubric should be part of a portfolio of work. For more information on rubric construction you can visit

http://rubistar.4teachers.org/index.php or many other websites.

Use measurements that will be sensitive enough to show change. Some assessment tools are more sensitive than others to change. Use assessment techniques that will allow you to detect the effects of improvements if you choose to make improvements in your program. For example, "completion of a research-based paper" is a less sensitive measure of research design mastery than "rubric-based rating of research design element in a research-based paper." The former will only distinguish between students who were and were not able to complete the paper. The latter will distinguish between different levels of research design expertise.

It's OK to use sampling. If your program is large, you can randomly sample students to increase efficiency rather than assessing all of your students all of the time, but make sure that you obtain enough data to trust your conclusions.

<sup>&</sup>lt;sup>5</sup> Adapted from the University of Texas at Dallas, Assessment Workbook, March 2006.

**Should you create our own tools?** If you decide to design your own measurement tool keep these things in mind:

- 1. Locally developed measurement tools tend to have tremendous content validity in that the components of the tool are specially chosen by you to assess the areas that you value. They can be worth the effort.
- 2. However, creating a valid and reliable tool is a lot of work. Be prepared to pilot test the measure and revise it multiple times, often over several years.
- 3. Consider how you will assess the validity of the tool. How do you know that it is measuring what you want it to measure? Just because it appears to be measuring what you value doesn't mean that it necessarily is. What evidence can you gather that the measurement is valid? For example, correlating scores on the tool with other indicators of student learning, such as a published standardized assessment in the area, can provide some evidence of validity.
- 4. Involve all the program faculty in the design of the tool(s). They each have unique perspectives and contributions to make. Also, they will certainly become involved when you show them the results, so the earlier they provide input, the better!
- 5. Keep good records of your development process and store them in Tracdat. Designing a good measure takes work potentially over a long period so keeping good records about the process is important in ensuring that you continue to move forward in improving the instrument. Consider keeping copies of faculty meeting minutes where you discuss your plans for the measure and different iterations of the measure itself in the "document repository" section in Tracdat.

The next step for your program, then, is to determine how you already do or how you can efficiently integrate student learning outcome assessment into your existing curriculum. It is very likely that you only need to make small modifications to courses or curriculum to be able to effectively assess student performance on your program's learning outcomes.

# Worksheet for Step 4

This exercise expands upon the previous one in Step 3 and asks you to look in greater detail at the assessment tools used to determine student performance on each student learning outcome in the various courses and experiences. To help identify what kind of assessments of your learning outcomes are already being conducted, complete the following table. List the course number in the left column and any assessments embedded in the course in the columns to the right, such as exam questions or student presentations. Include non-embedded assessments in the table as well, even if they are not tied to a particular course, such as standardized tests used at the end of the program. Consider whether the assessments for each SLO are appropriate and sufficient. Keep in mind that multiple assessments of each SLO are typically more helpful than single assessments.

Assessment Key (change as needed):

EQ=Exam Questions	PO=Portfolio	P=Paper	L=Lab
S=Standardized Test	O=Oral Presentation	I=Internship	

#### Map of Learning Outcomes (expand or shrink as needed)

Program:	Date:
----------	-------

Course	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6
Example: Math 1320	S			EQ		

**Further investigation of your assessment tools.** In the table below, enter the course, the learning outcome(s) covered in that course, the assessment tool(s) used to measure student performance, and whether the tool(s) has sufficient validity and reliability. Each of these components should be closely related. Completion of this table helps you identify "broken links" and whether or where you lack quality assessment tools. Aim for a tool(s) or system of that will yield consistent results and clearly assesses the learning outcome.

#### Integration of Learning Outcomes and Assessment Tools (expand as needed)

Program:		Date:					
Course & Section	Relevant SLO	SLO-Related Assessment	Validity & Reliability of Assessment Tool	SLO-Related Learning Activities			

Thoughts about integration of key components:

# Step 5. Collect, tabulate, analyze the data, and report the results.

## Analyzing the Data

How data is analyzed and results are reported depends on the type of data collected and the audience. For the majority of data analyses Excel or other spreadsheet programs will suffice. Data entered in Excel can be imported into a statistical package (such as SPSS) for more sophisticated data analyses if necessary. Regardless of how you analyze the data, the results should be reported in a clear, easy to understand manner, so that it facilitates optimal evaluation. Patterns, problems, and questions should become apparent while summarizing and evaluating the data.

When deciding how to analyze your data, consider basing your data collection techniques and analyses on questions you have which are directly tied to your learning outcomes. These questions will guide the selection or design of your data collection tools. Questions that may be worth asking are, for example:

- To what degree have students become proficient in quantitative scientific skills and written and oral presentation skills?
- Have the students fallen short of, met, or exceeded criteria and standards we set? If they've fallen short, what specific things could we do (at the program level, course level, and/or individual faculty level) to address it?
- Are there subgroups of students that differ significantly from each other in what they have learned?
- Have students' performances on all learning outcomes increased over time, or has their performance on some outcomes improved while performance on others have not? What might account for improvement in some areas, but not in others?
- Did performance stall or plateau prior to senior capstone experiences? Why did this happen?
- Are the assessment tools (rubrics, tests) still valid and reliable, or do they need to be reexamined in light of other significant changes?
- What are the strengths and weaknesses in our curriculum based on the data analysis?
- How does the analysis inform the improvements we need to make in the learning experiences and the teaching techniques we employ?

#### **Organizing Your Results**

UTPA uses the software package Tracdat to organize and store SLO assessment results. In Tracdat, assessment data is entered in separate fields and can be summarized in a variety of ways. The most common report generated in Tracdat to organize the assessment results is a four-column report, with columns for 1) Student Learning Outcomes, 2) SLO Means of Assessment and Criteria for Success/Strategies, 3) SLO Assessment Results, and 4) Use of Result and Follow-Up. Tracdat also allows us to have a single storage place for SLO assessment information so that, even if departmental faculty who oversee assessment leave the university or move to other positions,

assessment data and results are seamlessly maintained. Below is an example of the beginning of a four column report generated in Tracdat.

Unit Assessment Report - Four Column			
UTPA			
SLO Program - B.S. in Clinical Lab Sciences			
Unit Mission: The Clinical Laboratory Science Program supports and facilitates the Mission of the University of Texas-Pan American by providing a quality educational experience which prepares clinical laboratory scientists for leadership roles in a multicultural healthcare system. It is committed to providing an environment of academic freedom in which students learn from faculty who have expertise in the profession. Excellence in teaching is enhanced by faculty engaged in research and creativity activity as well as professional service to the profession, the University and the local community.			
Department: Clinical Lab. Science Program College: College of Health Sciences and Human Services Division: Division of Academic Affairs			
Student Learning Outcomes	SLO Means of Assessment & Criteria for Success / Strategies	SLO Assessment Results	Use of Result & Follow-Up
SLO Program - B.S. in Clinical Lab Sciences - Demonstrate cognitive abilities - Demonstrate cognitive abilities appropriate to the entry level practitioner Start Date: 01/01/2007 End Date: 05/31/2007 SLO Outcome Status: Active/Ongoing	SLO Assessment Method: National Certification Exam pass rate for students graduating from program SLO Assessment Method Category: Direct - Standardized Test Criterion for Success: 80% of the graduates taking an exam will pass one of the national certification exams on the first try	01/21/2011 - As of Dec. 31st 2010, 80% of December 2009 graduates taking the national board of certification exam (BOC) passed on the first try. As of May 2011, 100% of the December 2010 graduates taking the national board of certification exam (BOC)passed on the first try. No May, 2011 graduates Result Type: Criterion Not Met Result Status: Pending Follow-Up	08/23/2011 - Results reviewed at faculty meeting. No major changes needed in curriculum. Decided to consider a fee to encourage students to take certification exam earlier
	SLO Assessment Method: Alumni survey section III, items 4 and 5 SLO Assessment Method Category: Indirect - Alumni Surveying Criterion for Success: 80% of the responses will fall in the neutral	01/21/2011 - Survey of December 2009 graduates: Alumni survey section III, items 4 and 5 100% neutral to strongly agreed. No May graduates. Result Type: Criterion Met	08/23/2011 - Reviewed at May, 2011 faculty meeting and no major changes were needed at this time.

Tracdat is a relatively straightforward application to use. However since some faculty only use it occasionally, they have difficulty remembering exactly the steps to use. Individual and group training is available on a scheduled basis and by request from the Office of Undergraduate Studies. The Office of Undergraduate Studies will also enter data for your program if you are having difficulty doing so. If you need to make that request, please use the four-column format displayed above and enter your data in a word processing program, such as Word, so that it can easily be moved into Tracdat.

## Maintaining a Record

Remember that you need to archive enough information in an accessible place so that you and your program faculty can return to the information later and understand how it was obtained. Include the following in Tracdat after you enter your results to ensure continuity of assessment:

- 1. **Assessment Report:** When you are done entering your results, generate a "report" in Tracdat and save it in the document repository. This report is the easiest way to communicate SLO findings to others.
- 2. Assessment Artifacts: If you used special assignments to assess learning outcomes or rubrics for scoring, upload those to the document repository as well.
- 3. **Documentation of Faculty Decision-Making:** Did you meet to discuss your assessment approach or changes to assessment since the last time you entered information into

Tracdat? Upload minutes from those meetings in the document repository. This is very important to establish that faculty are involved in the assessment of learning outcomes and to help the program maintain a continuous "memory" of assessment progress. This is a requirement from SACS, as well as just a good idea!

# **Protecting Student Confidentiality**

The assessment reports and documentation that you are producing to track assessment efforts may potentially be viewed by individuals who have an interest in assessment of your program, such as Vice Provosts, Deans, external program reviewers, or SACS reviewers. These individuals do NOT have a legitimate need to know how individual students have performed on assessments. Don't include individual student identifiers in your assessment reports. This is a potential FERPA issue.

# Step 6. Using the evaluation results: The most important step.

Evaluation and a determination of how well the student learning outcomes were achieved by the students can only occur when you are able to compare the actual data to a predetermined target (your "Criterion for Success"). At this stage you put a value on the results of your analysis to determine how well the program achieved its goals. It's okay to find out that your students are not succeeding. It can be very disappointing to assess your students on a learning outcome you value and find that very few of them have mastered it. The important thing is what you do with that information. The "administration," or SACS, or other reviewers will not view the program negatively when assessment results are low if the program is working diligently to use that information to improve student learning and documents those efforts. If the results suggest you missed the targets set, and students performed below expectations on one of the student learning outcomes, you should be able to "drill down" into the measurement process and tools used for that learning outcome, the learning experiences students were offered, the pedagogy used, and other variables to determine where improvements should be introduced. Evaluation could lead to changes in many aspects of a program such as the learning outcomes, pedagogical practices, the measurement tools and methods used to document student performance, and the information collected. Consequently, it is important that the tools and methods used provide the depth of information needed to accurately identify the practices that need improvement.

## **Evaluate, Reflect, and Take Action**

To gain a rich perspective on the data, assessment results should be disseminated widely and a variety of stakeholders should be engaged in the evaluation to ensure the obvious is not overlooked. The report generated in TracDat is a straightforward way to share those results. Don't forget to ask the students as well. They experienced the assessment plan as it was being carried out and can give the "inside" point of view faculty will never be able to see. Use a thorough evaluation as a basis for targeted improvements in the program. Once the various perspectives have been compiled, consider the following actions.

- *Return to the program's mission, goals, and outcomes*. How do the results line up with previous expectations? Did student do better, worse? Did you make incorrect assumptions or use incorrect information during the previous planning stage? What are the outside stakeholders telling you?
- *Review the performance levels set earlier in the process*. Were those expectations met? Are the established standards adequate, or did you set the bar at the wrong height? What level of performance is good enough for undergraduates, graduates?

- *Evaluate the assessment instruments, rubrics, and methods*. Are they optimally efficient and effective in light of the questions you seek answers to? Are they the correct tools to use?
- Determine the kinds of corrective actions that will have the greatest potential to improve student learning. In other words, try to identify the "low hanging fruit," improvements that do not require large amounts of resources but lead to significant increases in the quality of student learning. Again, don't forget to include the students' voice in the deliberations.
- *Clearly articulate what is to be done, by whom, by when* and how data will be collected to assess the impact. Make sure these actions are aimed directly at improving student learning.
- Determine the implications and consequences of the plan on department policies, curriculum, resources allocations, faculty effort, the students' experience of the program, etc. and prioritize improvement actions based on high impact and low cost.

As the faculty decide on actions to improve student learning, they should set specific targets wherever possible so they have goals to work towards. For example, if your discipline has a national database of student performance measures (related to a certification exam for example), you can compare your student performance with the national means. The faculty should also state what proportion of the students should achieve a specific performance level. If previously measured performance data on a learning outcome are available, it can be used as the baseline for setting new targets for the next cycle.

# Tackle Pedagogy/Curriculum Head On

The work to help students achieve SLOs mostly occurs in the courses. The Curriculum Map helped you identify in which courses students experience learning activities related to the SLOs. Most likely, the student learning outcomes are covered in several courses so that responsibility for helping students achieve acceptable performance falls on several faculty members. The question who does what, how, where, and when to improve the situation is an important one. Clearly, unless one course is responsible for one student learning outcome, several faculty members will have to shoulder the task of developing learning experiences and material pertinent to the learning outcomes.

Faculty members who teach a course or lead designated learning activities related to a specific learning outcome can discuss what each one does to help the students learn. This discussion will help identify gaps and redundancies that can be eliminated to better align the efforts in different course sections and maximize student learning. Faculty can also ask colleagues at other institutions about their most effective strategies and best practices. In addition, numerous disciplines now have extensive sources and sometimes specific journals dealing with teaching and learning. These sources can be examined by a committee of faculty especially those who teach a sequence of courses focused on a select set of SLOs. A one-semester reading group of faculty and

possibly students focused on identifying best teaching practices in the discipline may be able to identify highly effective practices that could have major impacts on student learning.

# Monitor the Impact of the Changes and Compare Them to Past Data

Upon implementation of changes, the entire assessment cycle starts again. A carefully developed assessment plan can likely be used to measure the impact of the changes. However, for a number of different reasons, such as a change in learning outcomes, it may be necessary to make modifications in the plan.

A well-designed assessment plan and careful evaluation of the results enables the faculty to make *targeted* improvements or *affirm* current practices efficiently and effectively. This is the main reason assessments are conducted.

#### Communicate Conclusions and the Actions of Improvement to Be Implemented

The Department Chairs and Assessment Coordinators have the final responsibility for ensuring that everyone teaching in the program had an opportunity to participate in the development of the assessment plan and results, received the final copy, and understood the implications for their teaching practice. The Dean, Vice Provosts, Provost, and applicable accrediting bodies will also be viewing and considering your results. Your program could consider targeted communication of results to other stakeholders as well, such as students, future employers of your students, high school seniors and other prospective students, and community members. Consider the following when communicating the results:

- Include enough information so that a reader of the report will understand what you did and why, including yourself if you forget later! This is sometimes a problem in Tracdat when faculty coordinators try to enter the bare minimum needed to complete the report.
- Celebrate and *publicize* your successes. At UTPA we tend to forget to let people know what we do well. Promote the program vigorously, but use accurate data and evidence to do so.
- Identify the shortcomings and don't try to hide or minimize them, but present the actions you will take to improve these weaknesses and explain what you expect of these improvements.
- Remember to go back later and report on the results of the actions that you took to show that you followed through on your plans.
- Consider whether the results should be presented differently to different audiences such as prospective students, the Dean and other administrators, the rest of the UTPA community, and beyond.
- Avoid "data dumps," especially to lay people. Ask for assistance to format your outcomes in an effective manner, especially if you are considering publishing a newspaper article and placing the final report on your program's website.

#### Appendix A: Rubric for Evaluating Program Assessment Plans

The following rubric, borrowed from California Polytechnic State University, can be used to determine the quality of a department or program's assessment plan. Note that this is a draft and should not be referenced. It is not used at UTPA in any official capacity but may be useful for programs who are reviewing their assessment plans.

Criterion	Initial	Emerging	Developed	Highly Developed
Compre-	The list of outcomes is	The list includes reasonable	The list is a well-organized set	The list is reasonable,
hensive List	problematic; e.g., very incomplete, overly detailed, inappropriate, disorganized. It	outcomes but does not specify expectations for the program as a whole. Relevant	of reasonable outcomes that focus on the key knowledge, skills, and values students	appropriate, and comprehensive, with clear distinctions between
	may include only discipline- specific learning, ignoring relevant institution-wide learning. This list may confuse learning processes	institution-wide learning outcomes and/or national disciplinary standards may be ignored. Distinctions between expectations for undergraduate	learn in the program. It includes relevant institution- wide outcomes (e.g., communication or critical thinking skills). Outcomes are	undergraduate and graduate expectations, if applicable. National disciplinary standards have been considered. Faculty have
	(e.g., doing an internship) with learning outcomes (e.g., application of theory to real- world problems).	and graduate programs may be unclear.	appropriate for the level (undergraduate vs. graduate); national disciplinary standards have been considered.	agreed on explicit criteria for assessing students' level of mastery of each outcome.
Assessable outcomes	Outcome statements do not identify what students can do to demonstrate learning. Statements such as "students understand scientific method" do not specify how understanding can be demonstrated and assessed.	Most of the outcomes indicate how students can demonstrate their learning.	Each outcome describes how students can demonstrate learning, e.g., "Graduates can write reports in APA style" or "Graduates can make original contributions to biological knowledge."	Outcomes describe how students can demonstrate their learning. Faculty have agreed on explicit criteria statements, such as rubrics, and have identified examples of student performance at varying levels for each outcome.
Alignment	There is no clear relationship between the outcomes and the curriculum that students experience.	Students appear to be given reasonable opportunities to develop the outcomes in the required curriculum.	The curriculum is designed to provide opportunities for students to learn and to develop increasing sophistication with respect to each outcome. This design may be summarized in a curriculum map.	Pedagogy, grading, the curriculum, relevant student support services, and co- curriculum are explicitly and intentionally aligned with each outcome. Curriculum map indicates increasing levels of proficiency.
Assessment Planning	There is no formal plan for assessing each outcome.	The program relies on short- term planning, such as selecting which outcome(s) to assess in the current year.	The program has a reasonable, multi-year assessment plan that identifies when each outcome will be assessed. The plan may explicitly include analysis and implementation of improvements.	The program has a fully- articulated, sustainable, multi- year assessment plan that describes when and how each outcome will be assessed and how improvements based on findings will be implemented. The plan is routinely examined and revised, as needed.
The Student Experience	Students know little or nothing about the overall outcomes of the program. Communication of outcomes to students, e.g. in syllabi or catalog, is spotty or nonexistent.	Students have some knowledge of program outcomes. Communication is occasional and informal, left to individual faculty or advisors.	Students have a good grasp of program outcomes. They may use them to guide their own learning. Outcomes are included in most syllabi and are readily available in the catalog, on the web page, and elsewhere.	Students are well-acquainted with program outcomes and may participate in creation and use of rubrics. They are skilled at self-assessing in relation to the outcomes and levels of performance. Program policy calls for inclusion of outcomes in all course syllabi, and they are readily available in other program documents.

#### Appendix B: Rubric for Evaluating Program Assessment Progress

The following rubric, also borrowed from California Polytechnic State University, can be used to determine how well a department or program is progressing in the assessment plan development process.

Progress	1 1	2 Davidania	3. Emerging:	4 Developed	5. Full circle
<i>Stage</i> Element	1. Initial	2. Developing	progress being made	4. Developed	assessment, highly developed
Learning Outcomes	No learning outcomes defined	Learning outcomes vague and not measurable	Learning outcomes vague, measurability questionable	Learning outcomes specific and measurable	Learning outcomes specific, detailed and measurable
Curriculum/ Program Mapping	No curriculum or program mapping	Courses or program experiences listed but no links to SLO	Courses listed and, when appropriately linked to SLOs, no clear levels of learning defined	Courses listed and, when appropriately linked to SLOs, clear levels of learning defined for some SLOs at all levels (I, D, M) where appropriate	Courses listed and linked to SLOs, clear levels of learning defined for all SLOs at all levels (I, D, M). Clearly defined curriculum or program map, levels designated.
Methods/ Measures	No methods or measures defined	Measures listed, vague and not linked to specific SLOs	Measures listed and linked to specific SLOs, only indirect measures used, using primarily surveys and self reports	Multiple measures used and linked to specific SLOs. Assessment only at one level of learning. Indirect/Direct methods used.	Measures explained and linked to specific outcomes. Assessment performed at all levels (I, D, M). Authentic performance-based direct and indirect methods used.
Assessment Infrastructure	Assessment assigned to individual faculty member or administratively managed and mandated	Core working group of faculty emerging. Possible uses for technology identified.	Identified faculty committee with administrative support. Technology used to manage data.	Identified faculty committee actively communicating with program faculty. Administrative support present. Sophisticated application of technology developed.	Faculty committee functioning within program, working with dept curriculum committee, connected to college and institutional assessment efforts and goals.
Findings	No findings	Findings vague and unspecific	Findings explained, but not linked to SLOs.	Findings explained, collected regularly, linked to SLOs	Findings for several years explained, patterns and trends identified
Use of Findings	No use of findings	Findings discussed among faculty	Findings discussed among faculty, identification of issues discovered.	Findings discussed among faculty, identification of issues, pedagogy reviewed, recommendations made for program improvement	Findings discussed among faculty, pedagogy reviewed and revised based on assessment data, changes made if warranted for program improvement

SLO=Student Learning Outcomes, I=Introduced, D=Developed, M=Mastery

#### College of Arts and Humanities Department of English Undergraduate English Majors Assessment Plan AY 2009-2010 to AY 2013-2014

#### I. Planning process

The Department has three undergraduate majors: one in English and two in teacher certification, Grades 4-8 Certified and Grades 8-12 Certified, which includes a Grades 8-12 Certified with ESL Endorsement option. It should be noted that students in the Teacher Certification tracks are expected to meet the same learning outcomes as all English majors, as well as outcome 2 which references only those students. The Assessment Committee coordinates assessment activities as of Fall, 2009 when the position of Assessment Coordinator was discontinued.

#### II. Student Learning Outcomes for the English Major

In AY 2004-2005, three Student Learning Outcomes for the English major were developed following a series of committee, focus group, and whole department discussions. In AY 2007-2008 a fourth was added for use of technology.

- 1. Students will be able to interpret and analyze a text using different approaches from literary, rhetorical and/or linguistic theories.
- 2. Students in certification tracks will demonstrate knowledge and skills in the areas of writing, literature, reading, oral communication, media literacy, and English language arts pedagogy.
- 3. Recent graduates who majored in English will demonstrate satisfaction with the programs in the English Department.
- 4. Students will be able to use discipline-appropriate technology applications (such as library databases, computer applications, Internet research, non-print media, multimedia applications, desktop publishing, WebCT, course-based electronic communication, etc.) in preparation and presentation of course projects.

#### III. Methodology

This section describes the methodology to be used in assessing each Student Learning Outcome identified above.

## Student Learning Outcome 1: Students will be able to interpret and analyze a text using different approaches from literary, rhetorical and/or linguistic theories.

**Sample population**. The target population will be English majors enrolled in any 3000 or 4000-level English course who are graduating in May/August and December. With the assistance of the Research Analyst in the Office of Undergraduate Studies, graduating seniors will be identified every semester. Essays from the entire target population will be evaluated for the assessment twice a year, in December and in May.

**Measures.** Students enrolled in 3000 and 4000-level English courses and graduating in May/August or December will submit an essay completed in any upper division English class during their tenure as English majors at UTPA. The essay must fit one of the following

descriptions:

- a. The paper analyzes a significant issue and/or position in an area of English studies, or
- b. It interprets or analyzes a text or texts associated with a specific area of English studies (literature, rhetoric/composition, linguistics).

Students will also be advised to submit essays that represent their best work.

**Data collection**. The English Department's Assessment Committee Chair will be responsible for working with the Research Analyst each semester to identify the targeted students and with English Department Faculty to ensure that they submit the essays completed by those students. Graduating seniors will be informed about the required essay submission during the semester in which they are scheduled to graduate from the university. Professors will be given letters to distribute to graduating seniors in their classes informing students of the need to submit an essay to the English Department before the end of the semester. Follow- up efforts to collect essays from as many of the targeted students as possible include reminders from professors in whose classes students are enrolled, telephone calls from the English Department clerical staff, and reminder email contacts with the students.

**Scoring.** A scoring rubric which permits analytical evaluation of the essays on a four-point scale ranging from "strong" to "unsatisfactory" for each of the following traits: organization and focus; analysis and development; rhetoric and audience; style and mechanics is used to rate each essay.

Graders for each semester's assessment will be selected by the Assessment Committee. Graders will review the scoring rubric and participate in a calibration sessions prior to scoring the essays each semester. Graders will be paid an honorarium and provided with lunch on the day they rate the essays.

**Criteria.** To determine if the English program is successful in preparing students to meet this learning outcome, 80% of graduating seniors must score "satisfactory" or higher on each of the four traits in the rubric.

**Data analysis.** Working cooperatively with the Research Analyst, the Assessment Committee will analyze the ratings on the essays to determine overall patterns and to calculate correlations between the ratings and the number of hours of advanced English courses that students have completed and between the ratings and overall English GPA.

# Student Learning Outcome 2: Students in certification tracks will demonstrate knowledge and skills in the areas of writing, literature, reading, oral language, media literacy, and English language arts pedagogy.

**Sample population**. The target population will be students in English teacher certification tracks who take the Field 117 English Language Arts/Reading 4-8 and the Field 131 English Language Arts/Reading 8-12 TExES.

**Measures.** Field 117 English Language Arts/Reading 4-8 and the Field 131 English Language Arts/Reading 8-12 TEXES exams

**Data collection.** Students in certification programs will register for the TExES examination according to department, college, and institutional procedures.

**Scoring.** Official scores reported by the National Evaluation Systems and disseminated to the university by the State Board for Educator Certification (SBEC) will be used.

**Criteria.** To determine that the English program is successful in preparing students to meet this learning outcome, 70% of the students graduating under English Department certification degrees must receive a passing score on Field 117 or Field 131 TEXES exams.

**Data analysis**. In cooperation with the Research Analyst, the Assessment Committee and the English Education Committee will perform further analysis on the results from the 4-8 and 8-12 exams taken during the entire academic year. Possible areas for further examination include analysis of students' scores for each of the various language arts areas as presented in TEXES Competencies to determine departmental strengths and weaknesses in preparing students for the English certification exams.

## Student Learning Outcome 3: Recent graduates who majored in English will demonstrate satisfaction with the programs in the English Department.

**Sample population**. English majors who graduated in Fall 2009 through current prospective graduates.

#### Measures.

A survey instrument is online and students are requested to answer this survey through their courses and via e-mail.

**Data collection**. The English Department will work with the Alumni Office and with the Research Analyst to collect contact information for recent and prospective graduates. In addition, the Office of Institutional Research and Effectiveness will be contacted for available information about graduates from the English Department that the OIRE may have compiled through surveys conducted in the past five years.

**Scoring**. The Assessment Committee will tabulate the survey results for the questions requiring a numerical response, as well as analyze the open-ended responses (by summarizing them and coding them as negative or positive) to get an overall sense of the degree of satisfaction graduates have with the English Department, and to find out what they think the strengths and weakness of the program are.

**Criteria.** To determine if graduates are satisfied with the preparation provided by programs in the English department, 75% of recent graduates and graduating seniors should respond "good" or "excellent" to the question concerning the degree of satisfaction with the program and overall comments about the impact of the English major on their lives should be positive.

**Data analysis**. A combination of descriptive statistics and narrative summary will be used to analyze the student satisfaction survey data.

Student Learning Outcome 4: Students will be able to use discipline-appropriate technology applications (such as library databases, computer applications, Internet research, non-print media, multi-media applications, desktop publishing, WebCT, coursebased electronic communication, etc.) in preparation and presentation of course projects.

**Sample population**. English majors who graduate in Fall or Spring/Summer each semester.

#### Measures.

A rubric is sent to each instructor along with a list of all graduating seniors in his/her courses via e-mail. Instructors indicate a score based on this rubric for each student.

**Data collection**. The Assessment Committee and Research Analyst from Undergraduate Studies will compile the information collected.

**Scoring**. The Assessment Committee will aggregate the survey results for competence, good, and excellent scores.

Criteria. 85% of graduating seniors are expected to meet the level of competence or above.

**Data analysis**. Aggregate descriptive analysis will be used and reported to the faculty annually at a regularly scheduled department meeting.

#### **IV.** Reporting the Results

The department's Assessment Committee will compile the results and analyses from the various parts of the assessment and report during department meetings. Faculty input will be solicited for recommendations concerning programmatic or curricular changes based on the assessment results. Data obtained from the Student Learning Outcomes assessment and recommendations based on the results will be presented in TracDat by the Assessment Committee Chair.

#### V. Use of Results

Results of the on-going assessment of Student Learning Outcomes will be used in the following ways:

To refine goals for the undergraduate programs

To correlate courses and programs to articulated Student Learning Outcomes To spark continuing discussions about means of improving programs, student learning, and classroom teaching

To engage in long-range curricular planning

To adjust programs, offerings, advising, and other department services with students' expectations

To work actively and continuously toward improvement of the Department of English.

#### VI. Ongoing Assessment

The Student Learning Outcomes assessment has been instrumental in creating a culture of assessment in the English Department manifested by the following types of departmental discussions and activities:

Evaluation of the current English major program Discussion of curriculum revision Proposals for new curriculum programs Revision of curricular objectives for core courses Examination of course goals and objectives Integration of embedded assessments in courses and programs Continual planning for future assessments

The English Department will implement the following University assessment timeline:

#### AY 2009-2010

Fall 2009 and Spring 2010	Make changes in program/curriculum/Assessment Plan/Table as needed.
December 2009	Assess December graduating seniors/students.
May 2010	Assess May graduating seniors/students.
June 2010	Submit Annual SLO Assessment Report that includes
	Assessment Results and Use of Results (changes made).
<u>AY 2010-2011</u>	
Fall 2010 and Spring 2011	Make changes in program/curriculum/Assessment Plan/Table as needed.
December 2010	Assess December graduating seniors/students. May
2011	Assess May and August graduating seniors/students.
June 2011	Submit Annual SLO Assessment Report that includes
	Assessment Results and Use of Results (changes made)
AY 2011-2012	
Fall 2011 and Spring 2012	Make changes in program/curriculum/Assessment Plan/Table as needed.
December 2011	Assess December graduating seniors/students. May
2012	Assess May and August graduating seniors/students.
June 2012	Submit Annual SLO Assessment Report that includes
	Assessment Results and Use of Results (changes made).
AY 2012-2013	
Fall 2012 and Spring 2013	Make changes in program/curriculum/Assessment Plan/Table as needed.
December 2012	Assess December graduating seniors/students. May
2013	Assess May and August graduating seniors/students.
June 2013	Submit Annual SLO Assessment Report that includes
	Assessment Results and Use of Results (changes made).
<u>AY 2013-2014</u>	
Fall 2013 and Spring 2014	Make changes in program/curriculum/Assessment Plan/Table as needed.

December 2013 May 2014 June 2014 Assess December graduating seniors/students. Assess May and August graduating seniors/students Submit Annual SLO Assessment Report that Includes Assessment Results and Use of Results (changes made).

#### Unit Assessment Report - Four Column

#### UTPA

#### SLO Program - B.S. in Clinical Lab Sciences

**Unit Mission:** The Clinical Laboratory Science Program supports and facilitates the Mission of the University of Texas-Pan American by providing a quality educational experience which prepares clinical laboratory scientists for leadership roles in a multicultural healthcare system. It is committed to providing an environment of academic freedom in which students learn from faculty who have expertise in the profession. Excellence in teaching is enhanced by faculty engaged in research and creativity activity as well as professional service to the profession, the University and the local community.

Department: Clinical Lab. Science Program College: College of Health Sciences and Human Services Division: Division of Academic Affairs

Student Learning Outcomes	SLO Means of Assessment & Criteria for Success / Strategies	SLO Assessment Results	Use of Result & Follow-Up
SLO Program - B.S. in Clinical Lab Sciences - Demonstrate cognitive abilities - Demonstrate cognitive abilities appropriate to the entry level practitioner <b>Start Date:</b> 01/01/2007 <b>End Date:</b> 05/31/2007 <b>SLO Outcome Status:</b> Active/Ongoing	SLO Assessment Method: National Certification Exam pass rate for students graduating from program SLO Assessment Method Category: Direct - Standardized Test Criterion for Success: 80% of the graduates taking an exam will pass one of the national certification exams on the first try	01/21/2011 - As of Dec. 31st 2010, 80% of December 2009 graduates taking the national board of certification exam (BOC) passed on the first try. As of May 2011, 100% of the December 2010 graduates taking the national board of certification exam (BOC)passed on the first try. No May, 2011 graduates <b>Result Type:</b> Criterion Not Met <b>Result Status:</b> Pending Follow-Up	08/23/2011 - Results reviewed at faculty meeting. No major changes needed in curriculum. Decided to consider a fee to encourage students to take certification exam earlier
	SLO Assessment Method: Alumni survey section III, items 4 and 5 SLO Assessment Method Category: Indirect - Alumni Surveying Criterion for Success: 80% of the responses will fall in the neutral to strongly agree range for each of the statements	01/21/2011 - Survey of December 2009 graduates: Alumni survey section III, items 4 and 5 100% neutral to strongly agreed. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	08/23/2011 - Reviewed at May, 2011 faculty meeting and no major changes were needed at this time.
	SLO Assessment Method: Graduate exit survey, section I and IV SLO Assessment Method Category: Indirect - Student Surveying and Exit Interviewing Criterion for Success: 80% of the responses will fall in the	01/21/2011 - Graduate Exit Survey of Dec. 2010 graduates: Section I, Items 1-6 97% in adequate to excellent range. Section IV, 100% above average to excellent. No May graduates. <b>Result Type:</b> Criterion Met	08/23/2011 - Reviewed at May, 2011 faculty meeting and no major changes needed. Some suggestions for improving hemo lab included the use of response devices to test cell recognition.
10/15/2012 3:26 PM	Generated by TracDat a pr	oduct of Nuventive.	Page 1 of 5

Student Learning Outcomes	SLO Means of Assessment & Criteria for Success / Strategies	SLO Assessment Results	Use of Result & Follow-Up
	adequate to excellent range for each of the areas	Result Status: Loop Closed	
	SLO Assessment Method: Employer Survey, sections I, items 2a-f, and Section II overall rating SLO Assessment Method Category: Indirect - Employer Surveying Criterion for Success: Section I and II-80% of responses in neutral to strongly agree	01/21/2011 - Survey of employers for Dec. 2009 graduates: Section 1, items 2a-f: 100% in neutral to strongly agree range. Section II overall rating: 100% satisfactory to excellent. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	08/23/2011 - Reviewed at May, 2011 faculty meeting and no major changes were needed at this time.
SLO Program - B.S. in Clinical Lab Sciences - Demonstrate technicial competencies - Demonstrate the technical competencies expected of an entry level Start Date: 01/01/2007 End Date: 05/31/2007 SLO Outcome Status: Active/Ongoing	SLO Assessment Method: Graduate Exit Survey Sections II, III items 1- 6, and Section IV overall rating SLO Assessment Method Category: Indirect - Student Surveying and Exit Interviewing Criterion for Success: 80% of the responses will fall in the adequate to excellent range for each of the areas	01/21/2011 - Graduate Exit Survey of December, 2010: Section II: 98% adequate to excellent Section III: items 1-6 99% in adequate to excellent range Section IV: 100% in above average to excellent range. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
	SLO Assessment Method: Alumni Survey Section III, ITEMS 1,3 and 5 SLO Assessment Method Category: Indirect - Alumni Surveying Criterion for Success: 80% of the responses will fall in the neutral to strongly agree range for each of the statements.	01/21/2011 - Alumni survey of Dec. 2009 graduates: Items 1, 3 and 5: 89% neutral, agreed or strongly agreed for all statements. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
	SLO Assessment Method: Employer Survey, Section I, items 1a-f and item 3 SLO Assessment Method Category: Indirect - Employer Surveying Criterion for Success: 80% of the responses will fall in the neutral to strongly agree range for each of the statements	01/21/2011 - Survey of employers for Dec. 2009 graduates: Items 1 a-f: 100% in neutral to strongly agree Item 3: 100% in neutral to strongly agree. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	

10/15/2012 3:26 PM

Generated by TracDat a product of Nuventive.

Student Learning Outcomes	SLO Means of Assessment & Criteria for Success / Strategies	SLO Assessment Results	Use of Result & Follow-Up
or graduate education Start Date: 01/01/2007 End Date:	SLO Assessment Method Category: Indirect - Alumni Surveying Criterion for Success: 80% of the alumni who sought employment	Result Type: Criterion Met Result Status: Loop Closed	
05/31/2007 <b>SLO Outcome Status:</b> Active/Ongoing	will report that they found a position in the field in 6 months or less or are attending graduate or professional school		
	SLO Assessment Method: Student Placement Records SLO Assessment Method Category: Indirect - Placement of Students in Graduate Programs and Employment Criterion for Success: 80% of the alumni who sought employment will either find a position in the field or enroll in graduate or professional school	01/21/2011 - Dec. 2009 graduates: 100% of alumni found employment in the field or are enrolled in graduate or professional school. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
SLO Program - B.S. in Clinical Lab Sciences - Demonstrate Leadership Skills - Demonstrate leadership skills that will make them suitable candidates for management or supervisory positions in the future.	SLO Assessment Method: Alumni Survey Section III, items 2 and 5 SLO Assessment Method Category: Indirect - Alumni Surveying Criterion for Success: 80% of the responses will fall in the neutral to strongly agree range for each of the	01/21/2011 - Survey of Dec. 2009 graduates: Items 2 and 5: 100% neutral to strongly agree. No May graduates. Result Type: Criterion Met Result Status: Loop Closed	
01/01/2007 End Date: 05/31/2007 SLO Outcome Status: Active/Ongoing	statements SLO Assessment Method: Capstone management project in final clinical experience SLO Assessment Method Category: Direct - Capstone Course Evaluation Criterion for Success: 80% of the projects will be evaluated as being a B or better by faculty and supervisors	01/21/2011 - Dec. 2010 graduates: 100% of the projects were evaluated as 89% (B) or better. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
	SLO Assessment Method: Employer Survey Section I, items 4, 5, 14 and 15 SLO Assessment Method Category:	01/21/2011 - Survey of employers for Dec. 2009 graduates: Items 4 and 5: 91% neutral to strongly agree Items 14 and 15: 96% agree or strongly agree. No May graduates.	
I0/15/2012 3:26 PM			Dage 4 of 5

10/15/2012 3:26 PM

Generated by TracDat a product of Nuventive.

Student Learning Outcomes	SLO Means of Assessment & Criteria for Success / Strategies	SLO Assessment Results	Use of Result & Follow-Up
	SLO Assessment Method: Supervisor direct observation and evaluation of psychomotor performance in capstone clinical experiences using psychomotor evaluation form SLO Assessment Method Category: Direct - Performance Evaluation Criterion for Success: 80% of the students will be evaluated as demonstrating the required psychomotor skills on the psychomotor evaluation form at the end of each capstone clinical experience	01/21/2011 - Dec. 2010 graduates: 100% of students were evaluated as demonstrating the required psychomotor skills. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
SLO Program - B.S. in Clinical Lab Sciences - Demonstrate affective behaviors - Demonstrate affective behaviors which allow them to function as part of the healthcare team Start Date: 01/01/2007 End Date: 05/31/2007 SLO Outcome Status: Active/Ongoing	SLO Assessment Method: Supervisor direct observation and evaluation of affective behavior on affective evaluation form in capstone clinical experiences SLO Assessment Method Category: Direct - Performance Evaluation Criterion for Success: 80% of the students will be evaluated as demonstrating an acceptable level of required affective behavior on affective evaluation form	01/21/2011 - Dec. 2010 graduates: 100% of students evaluated as demonstrating the acceptable level of affective behavior. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
	SLO Assessment Method: Employer Survey Section I, items 6-13 SLO Assessment Method Category: Indirect - Employer Surveying Criterion for Success: 80% of the responses will fall in the neutral to strongly agree range for each of the statements	01/21/2011 - Survey of employers for Dec. 2009 graduates: Section I Items 6-13: 99% neutral to strongly agree. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
SLO Program - B.S. in Clinical Lab Sciences - Employment or further education competency - Demonstrate competency which will enable them to readily find employment or pursue related professional	SLO Assessment Method: Alumni Survey Section I, Item 4	01/21/2011 - Dec. 2009 graduates: 100% of alumni found employment in the field or are enrolled in graduate or professional school. No May graduates.	
10/15/2012 3:26 PM	Generated by TracDat a pro	oduct of Nuventive.	Page 3 of 5

Student Learning Outcomes	SLO Means of Assessment & Criteria for Success / Strategies	SLO Assessment Results	Use of Result & Follow-Up
	Indirect - Employer Surveying <b>Criterion for Success:</b> 80% of the responses will fall in the neutral to strongly agree range for each of the statements	Result Type: Criterion Met Result Status: Loop Closed	
SLO Program - B.S. in Clinical Lab Sciences - Utilize Information Technology - Demonstrate the ability to use information technology to communicate and access patient information. Start Date: 01/01/2007 End Date: 05/31/2007 SLO Outcome Status:	SLO Assessment Method: Supervisor direct observation and evaluation of psychomotor performance in capstone clinical experiences using psychomotor evaluation form SLO Assessment Method Category: Direct - Performance Evaluation Criterion for Success: 100% of the students will be evaluated as demonstrating the required information	01/21/2011 - As of 100% of the students were evaluated as demonstrating the acceptable level of competency in this area during all four capstone clinical courses. No May graduates. <b>Result Type:</b> Criterion Met <b>Result Status:</b> Loop Closed	
Active/Ongoing	technology skills at the end of each capstone clinical experience.		

#### Student Learning Outcome Assessment Summary

For Academic Years (two):	2010-2012
Major/Program/Degree:	B.S. in Biology
Department:	Biology
College:	Science and Mathematics
Date Submitted:	9/27/2012

**Instructions:** Complete this summary form, attaching Assessment Reports for the last two years and minutes from faculty meetings in which assessment results were discussed with program faculty. Forward this form and attachments to the department chair.

#### **Department Assessment Coordinator/Committee Review**

#### Briefly highlight important results of student learning assessment for the last two years.

The learning outcomes are set up to align with the Biology core courses (1401, 1402, 3302 (bio writing) and 4100 (seminar)), and each of the groups from which students select electives. The pass rates and scores on the assessment tool are lower than would be expected. Genetics is integral and critical to biology, and a major should have some level of proficiency in genetics. A total of 91 students completed the assessment, and only 44% of the students passed the genetics section. Student scores on individual questions ranged from 52 to 85.

Another area that was identified as a potential problem is group 4. Group 4 courses include organismal courses and environmental courses. The diversity of content is such that students are either lacking in understanding of organismal concepts or environmental concepts.

#### Summarize how important results have been used to improve student learning.

Include how results of the assessment have been disseminated to faculty in the program and how these faculty have been involved in decision making regarding use of results. Include planned next steps for improving student learning in the program.

Our group 4 courses are a combination of organismal and environmental courses. A single assessment tool does not accurately measure student learning for all the courses. The departmental SLO committee members discussed the possibility of developing a different assessment for each course taught as a Group 4 course, and then embedding those questions into the final exam.

The curriculum committee also weighed in on the issue of course diversity among group 4 courses. They are in the process of restructuring the major so that genetics is a core course. If ALL students majoring in biology take genetics, then the average comprehension of genetics concepts should improve. The group 4 courses will be split into two groups: organismal and environmental. With the proposed changes the biology major will still receive broad-based instruction in general biological concepts, and should be ready to accept employment in industry, or matriculate to graduate/professional schools.

I have reviewed this summary and associated SLO reports and provided feedback as necessary.

Date

Dei	bartm	ent	Chair
	Jartin	CIIC	Chan

College Dean

Vice Provost

Date

Date

Date

### Assessment of Program SLO Reports

Program:		Evalua	itor:	Date:	
Purposes:	To identify problems in individual program assessment reports to determine priorities for departmental support/training. To identify common problems in assessment reports to guide efforts to improve assessment university-wide.				
Overall Rating:	22-27 Commendable; 14-21 Progressing; 9-13 Needs Improvement				
		1—Needs Improvement	2—Progressing	3–Commendable	Score
SLOs					
Program SLOs ca essential learning for the program.	goutcomes	The program does not appear to have identified SLOs.	Too many (8 or more) or too few (2 or less) SLOs are listed to focus on <i>essential</i> program outcomes. OR 3-7 SLOs are listed but outcomes do not appear to be central to the program.	3-7 SLOs are listed that capture significant learning outcomes (or are tied to national standards, for applicable programs).	
Program SLOs are measurable.	e specific and	SLOs as written appear difficult to measure. They refer to faculty behavior ("faculty will teach") or course content ("courses will cover") rather than student learning or they are excessively broad.	Some, but not all, SLOs are phrased using format of "Students will be able to << <i>action verb&gt;&gt;</i> << <i>something&gt;&gt;</i> ", with a reasonable degree of specificity.	All SLOs are phrased using format of "Students will be able to << <i>action</i> <i>verb&gt;&gt;</i> << <i>something&gt;&gt;</i> ", with each SLO specifically listing the desired outcomes.	
Assessment Met	hodology				
Direct assessment emphasized. (As what the student knows or can do assessment of stu about what they other indirect ind learning and skill	sessment of t actually rather than udent beliefs know or dicators of	No direct methods of assessment are used.	One direct method of assessment is used, but other methods are all indirect.	Most SLOs are assessed using direct methods, with at least two SLOs measured with direct methods.	

The method of assessment is a good match to the SLO in question. A sufficient number of	Methodology of assessment for most SLOs does not clearly address the SLO and/or includes contaminating information (e.g. student grades or pass/fail of courses). Assessment of program students is	Most methods of assessment directly assess the SLOs that they are matched to. Some assessment methodologies are insufficient or appear to have questionable validity. All program students are targeted	All methods of assessment directly assess the SLOs that they are matched to. The assessment methodology is sound and appears reasonably valid.
students is assessed.	targeted but a low proportion of students is captured. OR The sample of students selected does not represent the students in the program because it is too small or unique in some way.	(or a reasonable sample of students) and assessed. However assessment cycle or numbers reported suggest important populations are missed.	participants in a course with embedded assessment, are assessed and reported on. OR A sufficient number of students is sampled at each assessment point to represent the students in the program.
The frequency of assessment is adequate.	Assessment occurs extremely infrequently and appears to follow no predictable cycle.	Assessment occurs most semesters (or years, for yearly cohorts) with an occasional cycle missed.	Assessment occurs once a semester OR when sufficient students have graduated (for small programs) OR once a year (for programs with yearly cohorts).
Continuous Improvement			
Results are regularly "used."	Use of results not indicated for majority of SLO's or "no change necessary" entries for all SLO's.	Use of results is inconsistently indicated in report .	Use of results is regularly reported for all SLO's .
Use of results reflects engagement of program faculty.	No evidence of review by faculty other than individual preparing the report or by the Chair only.	Use of results suggests faculty engagement through discussions, but no actions taken as a result of the assessment.	Use of results reflects faculty engagement through discussions with program faculty and actions taken that require more than one faculty member to agree or act.
Use of results reflects authentic efforts at continuing improvement.	No evidence of changes based upon SLO results.	Use of results reflects some effort at continuous improvement, but efforts listed are likely to have an insignificant effect on student learning or are not tied to SLO results.	Use of results reflects continuing improvement efforts that could reasonably be expected to have an impact on student learning OR serious effort to improve assessment methodology. Follow- up on changes implemented is indicated.