

Student Learning Outcomes and Assessment Handbook



Prepared by the:

Student Learning Outcomes and Assessment Oversight Committee (HotShots)

FOREWORD

Citrus College is committed to the process of student learning outcomes and assessment at all levels and in all areas of campus culture. At Citrus, faculty, staff, administrators, and students all share in the student learning outcomes and assessment process. Therefore, the SLO Handbook serves as a resource to all campus units (instruction, student services, institutional support, instructional support) as they continue to write, revise, assess, analyze, and reflect on their student learning outcomes. This handbook details the process from writing SLOs to implementing an improvement plan, as well as how this articulates with our planning/budget allocation process. Recommendations generated from assessment analysis are integrated into institutional planning through the processes of program review.

The purpose of the Student Learning Outcomes and Assessment (SLOA) Committee (also known as "HotShots") is to facilitate development, implementation and assessment of student learning outcomes across the campus community. Outcome assessment not only monitors the content and depth of student learning, but it also measures the success of the institution in providing effective learning opportunities. Therefore, the ongoing process of student outcomes assessment leads to improved courses, services, and programs and serves as evidence for institutional planning, resource allocation, and staff and faculty development. The committee strives to provide a resource to both instructional and non-instructional programs in all matters related to student learning outcomes and assessment, and to make collegial and collaborative recommendations that enhance their effectiveness.

If you have questions, or need help with student learning outcomes and assessment, you can contact the SLOA coordinator, the "HotShots" Committee, your Academic Senate/Curriculum Committee representatives, or your dean. Additional resources and supporting documents exist on the College's SLOA website and on the Intranet under Student Learning Outcomes and Assessment.

Student Learning Outcomes and Assessment Committee "HotShots"

Glenna Johnson	Eric Odegaard
Dr. David Kary	Michelle Plug
Lari Kirby	Raul Sanchez
James Lancaster	Nicki Shaw
Jim McClain	Dr. Arvid Spor
Dr. Martha McDonald	Lisa Villa
	Dr. David Kary Lari Kirby James Lancaster Jim McClain

Published: Spring 2014

TABLE OF CONTENTS

Overview and Philosophy Statement	4
Citrus College Mission Statement	8
Institutional Outcomes (ILOs)	9
Core Competencies	10
General Education Student Learning Outcomes	11
Instructional SLO Flowchart: Levels of SLOs and where they reside	12
Student Services, Institutional Support and Instructional Support SLO Flowchart: Levels of SLOs and where they reside	13
Part I: Writing SLOs	14
Overview	14
Outcomes vs. Objectives	14
Sample Outcomes	15
Guide to Writing SLOs	18
SLO revision on CurricuNet	19
Part II: Assessment of SLOs	21
Course assessment	21
Program assessment	21
Academic Affairs	21
Student Services	22
Instructional Support	22
Institutional Support	22

	GE and Institution assessment	22
	Sample assessments	23
	Academic Affairs	23
	Student Services	28
	Instructional Support	29
	Institutional Support	31
	Assessment Analysis and Reflection	32
	Documenting Assessment	32
	Guidelines	32
	Best Practices	32
Part I	III: SLO Assessment Reports	36
	Deadlines and Requirements	36
	ACCJC Annual Report	36
	SLO Implementation Report	36
Part I	IV: Appendices (Supporting Documents)	37
	Sample Program Student Learning Outcomes	37
	Sample Degree/Certificate/Skills Award Student Learning Outcomes	39
	Sample Curriculum/ SLO Assessment Map	40

Citrus College Philosophy Statement on Student Learning Outcomes and Assessment

Academic Senate action: Reviewed September 12, 2007 Revised September 13, 2007 Approved September 27, 2007 Reviewed December 7, 2011 Revised February 22, 2012 Approved February 22, 2012

Citrus College affirms its mission to foster a diverse educational community and cultural learning environment that supports student success in pursuit of academic excellence, economic opportunity, and personal achievement. One means of measuring student success is through the use of learning outcomes and assessment. Commitment to learning outcomes and assessment provides crucial underpinning to the mission of Citrus College. It requires that faculty and, indeed, the institution anticipate the impact of educational experiences on students, make critical choices in instruction and services in support of such impact, then assess the effectiveness of these choices and reconsider them based on outcome data.

Citrus College values the accreditation process as a "uniquely American quality assurance process through which institutions collectively set standards for good practice and conduct peer-based evaluations of institutions on a regular basis," which includes the unifying component of student learning outcomes and assessment in accreditation standards set by the Accrediting Commission of Community and Junior Colleges (Western Association of Schools and Colleges). We promote assessment and assessment documentation that is practical and equitable for all faculty members.

Citrus College has demonstrated its commitment to the importance of learning outcomes and the assessment process through its adoption of educational core competencies and assessment of students' ability to apply knowledge in the areas of communication; computation; creative, critical, and analytical thinking; community/global consciousness and responsibility; technology/information competency; as well as discipline/subject area specific content material.

Assessment at Citrus College targets improving student learning through appropriate outcome measures and holds as its standard the American Association of Higher Education's (AAHE) "Nine Principles of Good Assessment" (see attached). Our student learning outcomes and assessment practices also draw from theories in the areas of adult learning, assessment, and research. Outcomes assessment not only monitors what and how well students learn, but it also measures the success of the institution in providing effective learning opportunities. Therefore, the ongoing process of student outcomes assessment leads to improved courses, services, and programs and serves as evidence for institutional planning, resource allocation, and staff and faculty development.

While commitment to learning outcomes and assessment demonstrates an institutional value, primarily, this is a faculty-led curriculum matter. It is the role of the Academic Senate, based on the tenets of academic freedom, to oversee curricular content and standards in the development of outcomes, planning and implementation of the assessment process, and use of assessment results to help shape decisions within academic programs and respective disciplines.

The on-going process of learning outcomes and assessment serves to improve institutional effectiveness. Citrus College will base outcomes and assessment on valid, reliable, and relevant assessment procedures generated through multiple measures to collect both qualitative and

quantitative information in its efforts to improve courses, services, programs, and institutional mission. Resulting data will provide evidence for curriculum reform, planning, resource allocation, organizational leadership, strategic planning, and staff and student development. The results of learning outcomes and assessment are not a means to evaluate faculty; faculty evaluation is addressed in the Citrus College Faculty Association contract.

AAHE Nine Principles of Good Practice for Assessing Student Learning

- 1. The assessment of student learning begins with educational values. Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only what we choose to assess but also how we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.
- 2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time. Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.
- 3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes. Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations -- those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.
- 4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes. Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way -- about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.
- 5. **Assessment works best when it is ongoing not episodic.** Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.
- 6. Assessment fosters wider improvement when representatives from across the educational community are involved. Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the

campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

- 7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about. Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.
- 8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change. Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.
- 9. Through assessment, educators meet responsibilities to students and to the public. There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation -- to ourselves, our students, and society -- is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

Authors: Alexander W. Astin; Trudy W. Banta; K. Patricia Cross; Elaine El-Khawas; Peter T. Ewell; Pat Hutchings; Theodore J. Marchese; Kay M. McClenney; Marcia Mentkowski; Margaret A. Miller; E. Thomas Moran; Barbara D. Wright

This document was developed under the auspices of the AAHE Assessment Forum with support from the Fund for the Improvement of Postsecondary Education with additional support for publication and dissemination from the Exxon Education Foundation. Copies may be made without restriction.

Citrus College Mission Statement

Citrus College delivers high quality instruction to students both within and beyond traditional geographic boundaries. We are dedicated to fostering a diverse educational community and learning environment by providing an open and welcoming culture that supports successful completion of transfer, career/technical education, and basic skills development. We demonstrate our commitment to academic excellence and student success by continuously assessing student learning and institutional effectiveness.

Mission Objectives

Citrus College is a safe, friendly, accessible environment where all students and community members may optimize their academic, career, and cultural development.

As Citrus College continues to advance as a dynamic center for life-long learning, we will:

- provide general, lower division coursework leading to an associate degree in the arts or the sciences;
- prepare students to transfer to four-year colleges and universities;
- offer technological services and support for students, faculty, and staff;
- deliver programs to improve basic math, reading, communication, and ESL skills;
- grant opportunities for students to develop a global perspective through a curriculum with international and multicultural applications;
- furnish support services for the intellectual and personal development of all Citrus College students, including opportunities to participate in campus governance;
- foster a comprehensive and enriching program of extracurricular activities;
- conduct community education programs that encourage learning at every stage of life;
- award occupational certificates and degrees for career preparation and advancement;
- administer customized training programs for business and industry;
- increase career development support for students, faculty, and staff through career exploration,
- counseling, job preparation, job opportunities, and academic and classified staff development;
- collaborate with local high schools in articulation and curriculum development;
- advance cultural and personal enrichment programs for the college and community members, and promote inter-collegiate competition opportunities for students.

Citrus College Institutional Outcomes (ILOs)

Institutional outcomes are not limited to students in programs and services, but may apply to the broader community served by the college.

Institutional outcomes demonstrate commitment to the college mission:

Citrus College delivers high quality instruction to students both within and beyond traditional geographic boundaries. We are dedicated to fostering a diverse educational community and learning environment by providing an open and welcoming culture that supports successful completion of transfer, career/technical education, and basic skills development. We demonstrate our commitment to academic excellence and student success by continuously assessing student learning and institutional effectiveness.

Institutional Outcomes:

Citrus College fosters a diverse educational community and cultural learning environment that supports student success in the areas of core competencies adopted by the college in order to assure an informed and ethical citizenry.

Academic Excellence: (General Education) Students transferring or completing degrees or certificates from Citrus College must demonstrate effectively assessed learning in the six areas of general education competency.

- Instructional programs and services
- Student Support Services
- Institutional Support

Economic Opportunity: (Career and Technical Education) Participants preparing for employment and/or career advancement demonstrate effectively assessed learning in the six areas of core competency adopted by the college.

- Instructional programs and services
- Student Support Services
- Institutional Support

Foundational Skills for Student Success: (Basic Skills) Participants engaged in development of foundational skills for student success demonstrate effectively assessed personal achievement in the six areas of core competency adopted by the college.

- Instructional programs and services
- Student Support Services
- Institutional Support

January 9, 2009: HotShots February 20, 2009: HotShots February 23, 2009 Steering February 24, 2009: SLOAC Oversight Committee February 25, 2009: Academic Senate May 8, 2009: HotShots June 5, 2009 HotShots June 8, 2009 Steering Approved March 1, 2013 Hot Shots Reviewed April 5, 2013 Hot Shots Approved

June 10, 2013: Reviewed through governance committees and approved by Steering

Citrus College Core Competencies

Competencies serve as a common set of core curricular components identified and defined by faculty. Student learning outcomes are behaviors based on these competencies. Any student transferring or completing a degree or certificate from Citrus College must demonstrate effectively assessed awareness, understanding, knowledge, skills, and abilities in the selected competencies.

1. Communication

Reading analytically and critically

Writing with clarity and fluency

Listening actively

2. Computation

Math proficiency Decision analysis

Synthesis and evaluation Application of mathematical concepts and reasoning

3. Creative, Critical and Analytical Thinking/Information Competency

Curiosity Analysis
Synthesis Evaluation
Creativity Research

Learning strategies Problem solving
Decision making Aesthetic awareness

Information Competency:

Determine the nature and extent of the information needed

Access needed information effectively and efficiently

Evaluate information and its sources critically Access and use information ethically and legally

4. Community/Global Consciousness and Responsibility

Awareness of environmental issues/sustainable resources
Respect for other beings Cultural awareness
Ethics Community service

Integrity Citizenship

Interpersonal skills Lifelong learning

Self-esteem Empathy

Personal responsibility Physical health and wellbeing

Health literacy

5. Technology

Computer proficiency

Basic computing and word processing

6. Discipline/subject Area Specific Content Material

August 25, 2004: Academic Senate adoption December 8, 2008: Approved by Steering

June 10, 2013: Reviewed through governance committees and approved by Steering

Citrus College General Education Student Learning Outcomes

A. Language and Rationality

Students successfully completing courses in Area A are able to read, write, speak, and think creatively in personal, academic, workplace and community contexts.

- I. English Composition
- II. Communication and Analytical Thinking
- III. Mathematics

B. Natural Sciences

Students successfully completing courses in Area B are able to investigate and explain physical phenomena through application of empirical knowledge using mathematical and scientific processes and concepts.

- I. Biological Sciences
- II. Physical Sciences

C. Arts and Humanities

Students successfully completing courses in Area C are able to appreciate, critically understand, and express artistic, philosophical, and cultural sensibilities in historical and contemporary contexts.

- I. Arts
- II. Humanities

D. Social and Behavioral Sciences

Students successfully completing courses in Area D are able to identify, analyze, and communicate an understanding of self and society through systematic investigation of social behavior, institutions, and culture.

- I. History and Political Science
- II. Behavioral sciences

E. Kinesiology and Dance

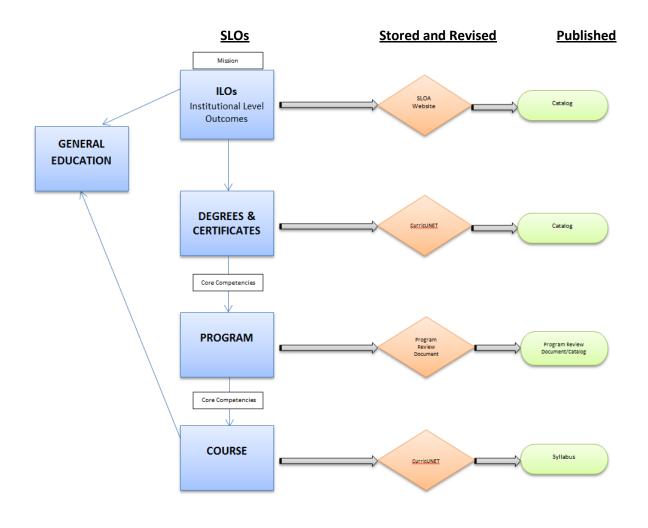
Students successfully completing courses in Area E are able to demonstrate personal responsibility, health literacy, and understanding of the importance of physical health and wellbeing.

- I. Kinesiology
- II. Dance

Revised: April 21st, 2010; February 6, 2014

Academic Senate: March 12, 2014

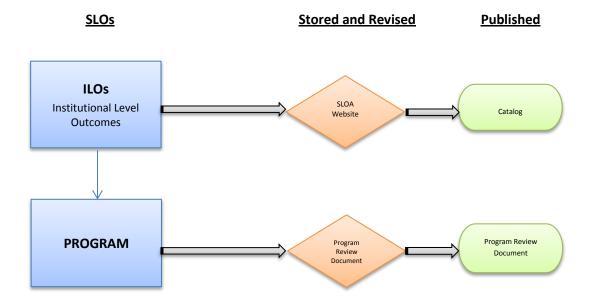
Instructional SLO Flowchart: Levels of SLOs and where they reside



The "HotShots" Committee approved a mapping mechanism to link course level outcomes to program/degree/certificate outcomes. This map is called the curriculum map. Course-level SLOs are mapped to higher-level SLOs in the following ways:

- 1. Via curriculum maps to program SLOs;
- 2. Via curriculum maps to discipline-specific degrees and certificates;
- 3. Via core competency to General Education (GE) pattern and broader degrees;
- 4. Via assignment to GE, and/or degree, and/or certificate (institutional-level outcomes) to college mission.

Student Services, Instructional Support and Institutional Support SLO Flowchart



Part I: Writing SLOs

Overview

Student Learning Outcomes (SLOs) give us the opportunity to assess the effectiveness of instruction and programs on campus. Making improvements to instruction and programs via assessment, reflection, and analysis will enhance student learning and success. An SLO is the "measurable knowledge, skills, abilities, and attitudes that a student has attained at the end (or as a result) of his or her engagement in a particular set of collegiate experiences." (From the ACCJC glossary) This encompasses experiences that include, but are not limited to, those found within a course, a program of study, a degree or certificate program, or services offered by the college.

Outcomes vs. Objectives

SLOs for the classroom describe the knowledge, skills, abilities or attitudes that a student can **demonstrate** by the end of a course.

Don't think about content or coverage - consider what students should be able to DO with what they've learned by the end of the semester.

- How will students demonstrate this?
- What can they produce to show faculty that they have learned to apply their new knowledge?

When trying to define SLOs for a course, think of the big picture. SLOs:

- Describe the broadest goals for the class, ones that require higher-level thinking abilities.
- Require students to **synthesize** many discreet skills or areas of content.
- Ask students to then **produce** something -papers, projects, portfolios, demonstrations, performances, art works, exams etc. that **applies** what they have learned.
- Require faculty to **evaluate** or **assess** the product to measure a student's achievement or mastery of the outcomes.

Objectives	Outcomes
Objectives describe skills, tools or content that a	Outcomes describe over-arching goals that a
student will master by the end of a course.	student will be able to demonstrate by the end of
	a course.
Objectives require the use of basic thinking skills	Outcomes require the use of higher level thinking
such as knowledge, comprehension and	skills such as analysis, synthesis and evaluation.
application.	
Objectives do not necessarily result in a product.	Outcomes result in a product that can be
Most often, objectives are synthesized or	measured and assessed.
combined to produce something that measures an	
outcome.	

Sample Outcomes

Academic Affairs

Upon completion of the course, students will be able to:

Administration of Justice 105: Employ active listening skills, ask appropriate questions, and analyze and report responses accurately

Assessment: Through written reports and interview assignments.

Child Development 100: Demonstrate an understanding of current issues and ethical standards in education and analyze public legislation in today's educational systems

Assessment: Through written assignments, student presentations, or exam in order

Dance 162: Execute beginning level ballet warm-ups, as well as across the floor and center floor combinations in contemporary and historical contexts.

Assessment: Through in class and written practicum assignments.

English 101: Write well-organized critical essays that assert an original thesis

Assessment: as demonstrated in a final research paper

Kinesiology 104: Demonstrate the proper techniques to defend the rear choke hold.

Assessment: Assessed by instructor observation or through skills testing.

Math 30: Use standard form and techniques in working with fundamental operations with polynomials and rational expressions, products and factoring, linear and quadratic equations in one variable, inequalities, exponents, radicals, graphing linear equations, systems of equations, applications and an introduction to functions and simultaneously demonstrate scholarly behavior in all class interactions **Assessment**: As shown by homework assignments and exams

Physics 201: Qualitatively and quantitatively predict, analyze and/or explain the behavior of physical systems using fundamental physical principles and models including Newton's laws of motion, conservation of energy and conservation of momentum.

Assessment: homework, exams, quizzes, lab reports and projects

Student Services

Admissions & Records: Students will be able to utilize technology to accurately and successfully apply online.

Assessment: Survey tied to online CCCApply application.

Counseling and Advisement: In-person orientation will help students understand the process of registration, how to read their assessment/placement results, and learn about campus resrouces that can help them succeed.

Assessment: Pre and post-tests.

Student Services (con't)

Extended Opportunity Programs and Services: EOP&S/CARE students will learn various intervention and retention strategies through self-development workshops offered by counselors, mid-semester progress reports, referrals to on campus services, and empowerment strategies taught by counselors. **Assessment:** Pre and post-tests. At the end of the semester, counselors also reviewed the grades of those students who participated in the Understanding Academic Probation Workshops.

Student Life and Leadership Development (non-instructional): Through participation in co-curricular workshops and speaker presentations, students will gain new life skills and/or an increased appreciation for diverse people, backgrounds, and ideas.

Assessment: Surveys administered at the end of events.

Instructional Support Services

College Success Program: Students who place below college level in English, reading, math and ESL receive effective instructional and student service resources

Assessment: By statistical analysis of success and retention rates and by student survey

Distance Education (Online) Program: The Distance Education [online] program will enhance, maintain, and promote extensive online academic student services to support student retention and success. **Assessment**: Outcomes are assessed by semester/session surveys from both faculty and students. Any CCCSE information with respect to DE is also used in the assessment.

Honors Program: Students will learn how to participate in, as well as lead, a seminar-style discussion. **Assessment:** Assessed by use of surveys. Also, this is documented in Program Review and Honors Advisory Committee minutes.

Library: Library users will develop a productive research strategy to complete a research assignment by utilizing library collections and search tools to facilitate research.

Assessment: Outcomes are assessed by the use of surveys. Also, the CCCSE asked questions regarding library usage.

Performing Arts Center: HPAC will provide a forum, and offer frequent and diverse opportunities for student creativity in performance. In addition, students and audiences will have multiple opportunities to develop and apply critical analysis to the evaluation of performances presented in a variety of arts disciplines.

Assessment: Measuring learning in any fine arts discipline, either by participants or audience members, is complex for a variety of reasons. As noted above, student participant learning is more appropriately measured within the academic departments utilizing the PAC. Measuring audience learning requires data and demographic data that the PAC does not collect, since its mission is to serve the entire college district without discrimination. For this reason, the best sources of measurement data are found by tracking fine arts event attendance and participation opportunities. The Program utilizes tables to display these data

Institutional Support Services

Facilities and Construction: This program committed to providing improved indoor air quality and lighting for students which directly impacts student success in the classroom.

Assessment: The program analyzed current facilities and practices and enacted improvements based on industry standards.

Human Resources: As a result of the Office of Human Resources' role as a strategic partner with all areas of the District, students can expect an educational experience delivered by a well-qualified faculty, support staff, management and supervisory/confidential teams that strives to reflect the diversity of the student population.

Assessment: Campus Survey

Office of Institutional Research: supports the college's mission and student learning through the provision of timely and accurate data to meet institutional needs.

Assessment: This OIR learning outcome is assessed through a customer satisfaction survey.

TeCS: Students should be able to access and efficiently utilize the technology tools and applications that support matriculation and educational goal completion.

Assessment: Through analysis of student usage.

Guide To Writing SLOs

Academic Affairs

SLOs for the classroom describe the knowledge, skills, abilities or attitudes that a student can **demonstrate** by the end of your course.

Don't think about content or coverage -consider what students should be able to DO with what they've learned by the end of the semester.

- How will students demonstrate this?
- What can they produce to show faculty that they have learned to apply their new knowledge?

When trying to define SLOs for a course, think of the big picture.

SLOs:

- Describe the broadest goals for the class, ones that require higher-level thinking abilities.
- Require students to **synthesize** many discreet skills or areas of content.
- Ask students to then **produce** something -papers, projects, portfolios, demonstrations, performances, art works, exams etc. that **applies** what they have learned.
- Require faculty to evaluate or assess the product to measure a student's achievement or mastery of the outcomes.
- Does the outcome represent specific knowledge/skills/abilities/attitudes students will acquire as a result of an experience in the intended forum (classroom, program, service area)?
- Is the outcome measureable in a continuous and sustainable way?

Student Services, Instructional Support, & Institutional Support

Service Area SLOs are statements that identify the program or department's client, service provided, and the experience or service that the department provides. Service Area SLOs identify critical and central services, processes, and function expected of a program or department and the desired quality (timeliness, accuracy, responsiveness, effectiveness, etc.).

Writing of service area SLOs should begin with a collective discussion about how the individual area supports students. The group can include all employees who work in an area. After brainstorming, the outcomes can be written using action language about what students will be able to "DO" as a result of contact with the service area. The outcomes should be broad and overarching goals that might encompass many detailed activities leading to the overall successful support of a student. The service area outcomes should also be connected with the mission and need to be measureable.

Student Support Service Areas include Student Services and Student Instructional Support. Service Area SLOs include support services and structured events that occur outside of the classroom, complement the academic programs, and enhance student learning and the overall educational experience of students through development of, exposure to, and participation in social, cultural, intellectual, and recreational and governance programs by:

- Encouraging engagement in the campus community and society
- Encouraging exploration of activities that provide opportunities for growth in individual and group settings
- Exposing students to various cultures and experiences, ideas and issues, art and musical forms, and styles of life
- Informing students regarding college policies and procedures and how these relate to their lives and activities
- Aiding in the awareness and utilization of college facilities and resources
- Assisting with developing leadership, decision-making and related skills

Source: Student Life/Leadership, Maricopa Community Colleges, Arizona (www.maricopa.edu, 7/23/07)

SLO Revision on CurricuNet for Academic Affairs

Logging in to Curricunet

- 1. Go to www.curricunet.com/citrus.
- 2. Enter your username and password. Your username will usually be first initial and last name: e.g. dkary. If you don't remember your password, check with Kathy Bueno (8858, kbueno@citruscollege.edu)

Looking at a course outline

- 1. Click on "Course" under the "Search" listing on the left side of the screen.
- 2. Choose the discipline from the drop-down menu, and put in the course number (if you leave a number out, you'll get all courses in the discipline.
- 3. Click on OK to see all versions of the course (active, historical, pending, etc.).
- 4. To see what is currently in the outline, click on the \Re , $rac{1}{4}$, or $rac{1}{4}$ icons for the Active copy (the one in red). Each symbol gives a slightly different view, but none lets you edit
 - a. \textbf{R} = Word report: limited outline with only main data fields (does include SLOs)
 - b. T = All Fields: data in all fields in the course outline
 - c. R = Change Report: Like All Fields, but with all of the changes from the previous version highlighted.

Changing your SLOs

- 1. Do not try to start an SLO modification if there is already a copy of the course listed in **black**. Check with the originator of that copy to see if your changes can go in there, or check with the curriculum chair or Kathy Bueno to see about removing the black copy.
- 2. To make your own copy of the course, click on the copy icon beside the red active copy:

- 3. Select SLO Revision from the drop-down menu.
- 4. Fill in the reasons why you're making the change.
- 5. The course checklist appears. Notice that Student Learning Outcomes is the only item available to edit. If other boxes are available, you've set up a full course modification instead of just an SLO cleanup. Check with Kathy Bueno to help correct this.
- 6. Click on the Student Learning Outcomes item on the right side.
- 7. To remove an SLO:
 - a. Under the core competency of the SLO, select Add\View
 - b. Click on the ¹/₈ icon beside the SLO (not the competency) and select OK when the warning comes up.
 - c. If you remove all of the SLO's in a competency, click on the $\frac{1}{6}$ beside that competency to remove it.
- 8. To modify a SLO
 - a. Under the core competency of the SLO, select Add\View
 - b. Click on the / to open the edit boxes at the bottom of the screen.

- c. Edit the text to what you need, then select Save. Note that we no longer require the "Rationale" box to be filled in.
- 9. To add an SLO in an existing Core Competency
 - a. Under the core competency of the SLO, select Add\View
 - b. Click on Add Outcome.
 - c. Fill in the text as needed, then select Save.
- 10. To add an SLO in a new Core Competency
 - a. Select Add Competencies
 - b. Select whichever competency applies to the SLO you want to add.
 - c. Click on Add
 - d. Follow the steps in "9" above.
- 11. To finish up, select Finish

Moving the Class forward for Approval

- 1. While still in the checklist window, you should see a "Submit" button on the left side. Click on this.
- 2. Click on the "My Approvals" link that appears.
- 3. With "Originator" selected in the dropdown menu, click on "Next".
- 4. Click on the "Action" button for the course you want to move forward.
- 5. Add any comments you want to give people about the changes you are making, and select "Pre-Launch" from the drop-down menu.
- 6. Click on Save to move the class into the approval queue.

Congratulations, your updates are moving through the approval process!

For SLO approvals, courses go through the following steps:

- 1. Pre-Launch (that's what you just did)
- 2. 5-day review by the Dean and Faculty: here's where your colleagues get to comment on the changes. After 5 working days, it goes to the next stage.
- 3. Launch. That's where you make any changes based on the comments and then use My Approvals to move the class forward.
- 4. Curriculum Rep. Your curriculum representative makes one last check to make sure it's okay. If not, they can recommend changes.
- 5. SLO Coordinator: Final check by the coordinator.
- 6. Activation by the Curriculum Assistant. That's it.

Part II: Assessment of SLOs

Course Assessment

Course-level Assessment Defined:

Assessment is an evaluation of student success in acquiring/demonstrating specific behaviors or skills. It is an ongoing process designed to monitor and improve student learning. Faculty explicitly define what they want students to learn, verify that the curriculum is designed to foster that learning, collect empirical data that indicate the extent of the learning, and use these data improve the program.

-Allen, Mary J. Assessing General Education Programs. Jossey-Bass, San Franciso, 2006. P. 1.

Assessment is any effort to gather, analyze, and interpret evidence which describes institutional, departmental, or divisional effectiveness. (Upcraft and Schuh, 1996)

The Higher Learning Commission defines assessment of student learning in the following way:

"Assessment of student learning is a participatory, iterative process that:

- Provides data/information you need on your students' learning
- Engages you and others in analyzing and using this data/information to confirm and improve teaching and learning
- Produces evidence that students are learning the outcomes you intended
- Guides you in making educational and institutional improvements
- Evaluates whether changes made improve/impact student learning, and documents the learning and your efforts."

Assessment provides information about how students acquired or demonstrated desired behaviors or skills. It can also analyze and identify content with which students have the most difficulty or the most success. Additionally, assessment can help to identify whether different student populations have different rates of success.

In instruction, students benefit from assessment of student learning outcomes in many ways. Because expectations are communicated in the syllabus via rubrics and grading standards, students will know the expectations for performance and characteristics of evaluation which will help them to be more successful. Students will be able to reflect on the learning experience and potential areas of growth.

Program Assessment

Academic Affairs

In Academic Affairs, the Program Review process provides an opportunity to combine course-level assessment results with student and college demographic data. Course-level SLOs are mapped to program-level SLOs via a document called the Curriculum Map (see Part IV). The Curriculum Map thus provides an opportunity to discuss the success of students in the program based partly on the success of

students in courses. Often degree and/or certificate SLOs will be very similar if not the same as the program SLOs and may be discussed in a similar fashion to the program.

Student Services

In Student Services, programs are assessed and analyzed in a systematic manner, reflecting on student feedback through surveys or focus groups which will result in improved support of students. Achievement of student services outcomes often results in students' ability to navigate the college system, plan and execute their education, or connect with other students. Student Services programs assess SLOs during their annual program review process. Comprehensive program reviews are posted online and annual program reviews are shared in a bound notebook during a fall planning retreat.

Instructional Support

In Instructional Support, programs are assessed and analyzed in a systematic manner, reflecting on student and/or faculty feedback through surveys or usage data which will result in improved support of the instructional program. Achievement of instructional support outcomes often results in enhanced student success through their participation in particular activities or programs. Instructional support programs assess SLOs during their annual program review process. Comprehensive program reviews are posted online.

Institutional Support

In Institutional Support, programs are assessed and analyzed in a systematic manner, reflecting on feedback through surveys, and usage data which will result in improved support of the institution, such as facilities modifications. Achievement of institutional support outcomes results in enhanced student success through their awareness and use of institutional programs and facilities; achievement of these outcomes also results in improved work environments for faculty and staff. Institutional support programs assess administrative unit outcomes during their annual program review process. Comprehensive program reviews are posted online.

GE and Institution Assessment

Assessment of GE and institution learning outcomes occur on an annual basis. Initially, the college formed a GE Committee to determine courses to be included in the GE program. This committee also wrote GE SLOs for each of the five GE areas and submitted them to the campus governance committees for review and approval. Beginning in spring 2012, the college held a GE Assessment Dialogue to discuss and assess the GE outcomes. This dialogue generates a report which is shared in an online format with the college. Recommendations are taken to the appropriate constituent groups to plan and implement actions. Institution learning outcomes (ILOs) are reviewed and/or revised each time the college mission statement is reviewed. Assessments of ILOs utilize broad college data such as number of degrees/certificates earned and are linked to strategic planning and institutional effectiveness at the highest level

Sample Assessments

Academic Affairs

All course-level assessments are included in the SLOA reflection forms which eventually are included in the annual instructional program review. The following represent a few examples:

I. SLOs	II. Means of Assessment and Criteria for Success	III. Summary of Data Collected	IV. Use of Results and Future Plans
Identify the SLOs that have been developed for the course.	Identify the means of assessment and criteria for success for each SLO	Summarize the data collected for the SLO	Discuss how assessment has been used to implement change or strengthen what is working well
ARCH 100 - Introduction to Architect Analyze the architectural educatio	Architectural Board	Average exit Exam score is	75% is the average for the
n and design profession's history, progress, future, diverse occupational roles and responsibilities.	History Exam questions on Period and Style.	83% to 85%. 75% is passing.	Architectural Board. Students are above average.
BUS 176 Management for the Office	e Professional		
OUTCOME: Determine proper organization of office work and evaluate performance standards	The students completed case studies, chapter reviews, quizzes, tests, and online assignments to review the on Management and Decision Making in the Management Now textbook.	On the quiz for the chapter 26 students earned an average 67%; on the case study 14 students completed 8 of the 10 questions correctly; on the chapter review 17 students completed 39 of 60 questions correctly, on the online assignment 24 students completed 5 of the 10 questions correctly and on the chapter test 22 students earned an average of 83%.	Based on the assessment I will re-evaluate the types of assignments that are given to the students to review the chapter and learn the management principles.

COUN 160 - Strategies for College Success

SLO#1: Assess personal management skills and formulate specific methods to manage time more efficiently and apply time management principles to the improvement of academic achievement

Each student was asked to self-report what strategy(ies) presented in the COUN 160 Strategies for College Success course he/she got the most value from learning and implementing. Since this was a new way of measuring student learning related to time management, no criteria was initially set.

Students from this section of COUN 160 Strategies for College Success course were asked to self-report what strategy(ies) presented in the COUN 160 Strategies for College Success course he/she got the most value from learning and implementing. Nineteen students in this course section participated in the SLO study. Seven (37%) of the nineteen student who participated in the SLO study responded that strategies related to time management had the greatest impact on their increased success as a student. The following are specific examples: making and keeping agreements (i.e., showing up to appointments, getting to class on time, etc.); setting goals using SMART goals; Achieving goals using SMART goals; test-taking success using a time management plan; time management through "Stop Procrastination Now" and "Just Do it;" time management; and strategies for dealing with procrastination.

It is interesting to note that 37% of the students felt that out of all of the strategies learned in the course, strategies related to time management were among the most valuable of the strategies they learned about and implemented with success. Since this was a new way of measuring student learning related to time management, no criteria was initially set. Next steps may involve a repeat of this round of SLO measurement to see if there are similarities in the percentage of students self-reporting time management strategies as being among the most valuable that they learned and implemented.

ENGL 98 - English Fundamentals

Apply introductory inquiry skills to ethnically diverse readings, and identify main ideas and significant details In-class final exam

59% showed proficiency

Evidence indicates the need for increased reading practice and instruction.
Suggested increase to course's unit load to allow for more reading instruction/practice.

KIN 116 - Yoga Develop awareness of basic yoga Sanskrit/Final The purpose of these postures (asana), their Exam assignments is to cover the names (English/Sanskrit), and 2. Ashtanga entirety of the eight limbs correct form/application Reading of Ashtanga which assignments/qui represent the holistic zzes practice of yoga both off Surya Namaskar and on the mat. midterm (practical) 4. Create a class, The purpose of each pose review assignment is to build and session integrate information from the basics (asana/movement) to the contemplative (meditation/visualization). While it is challenging to quantify internal changes based on exposure to yoga, the assessments provided and the culminating exam clearly show intellectual acquisition of these skills. MATH 175 - Pre-Calculus Use proper notation and standard We evaluated 15 final The evaluators felt in techniques in working with exams from three full-

With each term I have used this information to

- Better define instructions inside the course site and in the classroom instruction
- Provided detailed information to support learning

Based on the slow acquisition of information of previous classes, my goal for this term is to use more Sanskrit, musculoskeletal references, and fitness terms to better help students understand/learn the concepts and pose names.

I am doing this by actively using more Sanskrit than English to describe pose structures, reinforcing the use of online glossary and pose directory and reminders about studying the final study guide.

Use proper notation and standard techniques in working with polynomial, rational, exponential, logarithmic, and trigonometric functions, analytic geometry, and mathematical induction along with simultaneously demonstrating scholarly behavior in all class interactions

We evaluated 15 final exams from three full-time professors' classes by using a well-defined 5 point rubric.

summary that Math 175 students' use of notation was improving, after having made that a goal after last year's cycle. While still looking for conceptual understanding, our focus on vocabulary and notation, better helped us to see consistencies in how we worded our questions and graded our assessments. Furthermore it also helped us to not lead the students' responses too much.

MUSE 110 - History of Music I

SLO#1: Describe the common musical practices from Antiquity through the Baroque period

Throughout three multiple choice exams there are 20 questions which refer specifically to the practice of music in Antiquity, during the 27% of the students answered 15 or more of the multiple choice questions correctly. 71% of the students answered 10 or more While clearly the majority of students demonstrate an understanding of this material on the exams, that understanding is less clear when it comes to the essay format.

Middle Ages, Renaissance, of the questions That said, the vast majority of and Baroque period. correctly. In addition, students who earned less than a Specifically these 45% of the students "C" on the term paper did so as questions address the made sufficient a result of brevity and lack of evolution of music use in reference to music research, failing to meet even everyday life, both in practice relative to the the minimum requirements of religious and life of a composer to length. Consideration is still earn a grade of "C" or entertainment settings, being given to reducing the how music was viewed better on the term length of the term paper, and valued, and its use in especially in History of Music I paper. behavior modification. In when the composers under addition, the term paper review could be considered requires an evaluation of more obscure. An alternative, a specific composer's also under consideration, is to career and how their create more specific questions music was perceived and to be addressed in written form. used both during their lifetime and subsequently. PHIL 101 - Great Religions of the World Show knowledge of major figures By comparing the results The data consists of The students' reports show the and principal ideas of the great of a pre-course and a written reports importance of class discussions religions of the world. post-course assessment. completed by each in helping the students learn a The criteria for success is student at the philosophical approach to the the student's selfbeginning of the world's religions. I hope to assessment of what he or course and at the end continue to improve facilitating she knew after the course of the course. 33 out class discussions so that compared to what he or she knew at the beginning of 36 students who everyone continues to feel of the course. completed both involved. assessments reported a greater knowledge and understanding of the major figures and principal ideas of the world religions. PHYS 203 - Physics C: Waves, Optics & Modern Physics 67% of the total students scored 71% or higher in Pre-Emphasize to students the lecture assignments. 72% of students who importance of Pre-lecture scored 71% or higher assignments as preparation for Describe physical phenomena in 75% of students will score scored 80% or above. in-class work and other 75% or higher in online multiple forms (verbal, pictorial, Of the students who assignments; send reminders to graphical and mathematical) pre-lecture assignments, scored less than 71%, those who have not completed the majority (73%) or didn't complete the scored low because they did not do the assignment assignment or failed to complete the assignment.

Demonstrate the	Quizzes, final exam,	Average Score on the	Assess prior knowledge and
appropriate calculation of	written assignments,	final exam was 88%.	basic math skills
pipe and vessel volumes	and class discussions	Overall class score on	
and hydraulic	Ability to coloulate	questions that	Additional class time should be
measurements	Ability to calculate water volumes, flows,	covered this SLO was	utilized to focus of math review
	and pressure on	66% .	
	exams	This fell below my	Encourage class participation to
		expectations for the	work on math questions and use
		course. Class	cooperative groups for
		participation during	additional review and discussion
		math lectures and	
		review was minimal.	Create additional math lessons
		Question format on	for review in class
		the exams, and the	
		math formula chart	Explore new methods to present
		may have also been	problem solving techniques
		an issue	

Student Services

All program assessments are included in the annual student services program reviews. The following represent a few examples:

Bookstore

Assessment of Outcomes:

Outcome	Assessment	Result	Change
1. Students should be able to distinguish the Owl Bookshop as the on campus center for practical educational resources to further their educational planning process and future goals.	1) Bookstore staff surveyed 255 students who returned their textbooks during spring 2011 refund period. 2) Improved survey will be given to students during fall 2012 refund period.	The top three responses were: 23% buying cheaper books somewhere else 15% dropping their class 15% being given the wrong books Of special note: 31% of the respondents declined to state why they were returning their textbooks	The Bookstore team will reexamine shelf tag information and student training procedures. Shelf tags will be revised, procedure manual updated, and student staff will be retrained. The survey and process will also be examined and revised to decrease the "decline to state" replies.

Counseling and Advisement Center

Assessment of Outcomes:

Outcome	Assessment	Result	Change
1.In-person orientation will help	Pre and post test	The survey yielded usable	On August 24 counseling faculty
students understand:		surveys from July 1, 2011 to	met to discuss the results of the
 The process for registering for 		June 30, 2012.	pre and posttest for orientation.
classes.		1. Students are aware of the	The group agreed that our goal
 How to navigate the online 		process for registering for	is to increase the post-test
class schedule.		classes.	results from 60% to 70% for
		• Pre test 14%	question 1.
		• Post test 60%	In order to accomplish this we
			will add 30 minutes to the
		2. Students are aware of how to	orientation with a focus on
		navigate the online class	teaching students how to
		schedule:	register.
		• Pre-test 27.2%	
		• Post-test 80.1%	

Student Life and Leadership Development Assessment of Outcomes:

Outcome	Assessment	Result	Change
2. Through participation in co-	Surveys administered at the end	One major diversity/social	Survey results indicated that
curricular workshops and	of events	justice event was held each	students desire more social
speakers, students will gain new		semester. The Fall 2011 event,	justice speakers. This will be an
life skills and/or an increased		Illegal Immigration: a	area of focus for 2012-2013.
appreciation for diversity.		humanitarian perspective had	
		131 in attendance. Sixty nine	
		(69) surveys were completed	
		with 56 (42%) indicating they	
		had gained new knowledge or a	
		greater appreciation for	
		diversity or social justice.	
		Spring 2012, Talkin' Bout My	
		Generation - over 300 in	
		attendance. 137 completed	
		surveys. 111 (81%) reported a	
		new level of appreciation.	

Instructional Support

College Success and Basic Skills Assessment of Outcomes

Outcome	Assessment	Result	Change
1. College Success Program:	By statistical analysis of success	In 2011, of the students who	New English and Math
Students who place below	and retention rates and by	completed the assessment	curriculum has been developed
college level in English, reading,	student survey	test, there was 69.7%	and implemented fall 2011.
math and ESL receive effective		placement into one or more	
instructional and student		basic skills courses.	
services resources		For MATH 029, of the 517	
		students in the 2009 cohort	
		(tracked for two years), 334	
		students successfully	
		completed MATH 029. Of those	
		students, 97 enrolled in MATH	
		150 or above, and 68 of those	
		students (70.1%) successfully	
		completed MATH 150 or	
		above.	
		For ENG 040, of the 635	
		students in the 2009 cohort	
		(tracked for two years), 469	
		students successfully	
		completed ENG 040. Of those	
		students, 242 students	
		enrolled in a transfer level	
		English course (i.e.101, 102,	
		103). Of those students 190	
		(78.5%) successfully completed	
		a transfer level English Course.	
		Student surveys are conducted	
		with each College Success	
		intervention—Learning	
		Communities, Fast-Track,	
		Success Centers, and	

	workshops (see each activity	
	below for student survey	
	results).	
	(Source: Progression from Basic	
	Skills Math and English through	
	Transfer Level-Institutional	
	Research)	
	·	

Learning Center

Assessment of Outcomes

Outcome	Assessment	Result	Change
1. Learning Center Services:	As measured by student success	Student surveys regarding the	Continue to refine procedures,
Demonstrate newly acquired	rates, student self-perception	Learning Center programs are	cross-train, and make
academic success skills and	surveys, and faculty feedback.	overwhelmingly positive.	adjustments as needed to not
improved ability to succeed		Faculty feedback expressed	only maintain, but improve and
academically.		during Matriculation Committee	expand, services provided while
		meetings, Faculty Leads	maintaining high service
		meetings, ESL Faculty Meetings,	standards.
		and College Success Advisory	SLO revised to improve
		Committee reflects appreciation	measurability and clarity.
		of the level of service provided.	Increase survey sample size.
		Note: See Individual Centers for	
		results	

Performing Arts Center Assessment of Outcomes

Outcome	Assessment	Result	Change
Student performers will practice their performance skills for public audiences, utilizing both verbal and non-verbal skills. Audiences will develop listening skills and techniques by attending performances in a	Performing arts students were critiqued on specific production skills requirements. Audience members' responses to productions were evaluated by written or verbal responses.	100% of performers were able to demonstrate skill specific improvement. Over 95% of audience members have favorable responses to productions.	Of the 5% negative patron comments, performing arts staff generally responds to concerns over subject matter or language. An on-going effort to notify the public concerning sensitive subject matter is in
comfortable and well-equipped			place.
facility.			

Institutional Support

Facilities and Construction Assessment of Outcomes

Outcome	Assessment	Result	Change
1. Engineering provides ongoing oversight of campus infrastructure operation, working closely with the Maintenance Section and a host of contracted service providers, design professionals and engineers.	Review percentage of completed work orders and ongoing supervisor inspection.	Most of the tasks are completed.	Result is a decrease in service. Request additional support.

Purchasing, Warehouse, and Transportation Assessment of Outcomes

Outcome	Assessment	Result	Change
use professional procurement practices and procedures that result in reduced costs of goods and services	Comparison of cost of goods and services received	Reduced funding met campus needs for instructional and non- instructional equipment, materials and supplies	Continue smart, value-centric purchasing practices

Technology and Computer Services (TeCS) Assessment of Outcomes

Outcome	Assessment	Result	Change
2. Students should be able to understand the various communication options provided at Citrus College and know when to use each option.	Increased information provided to students on Citrus College student email usage. Improved directions provided for email usage. Library and new student orientation have included information on student emails and other resources. System data on number of students accessing email	More students are using Citrus email. Usage has increased 20% during Spring 2012.	Look for more options to provide information on student emails.

Assessment Analysis and Reflection

The analysis and reflection of assessment results helps to close the outcome loop; it allows us to celebrate successes or to address any deficiencies discovered through the assessment process by making action plans. Analysis and reflection needs to be a group dialogue and us to tie assessment results to the college planning cycle. If the action plan requires allocation of resources, requests/recommendations can be made at the end of the program review document. Please see the integrated planning model on page 6 of the Integrated Planning Manual for a visual display of our planning loop

(http://www.citruscollege.edu/admin/planning/Documents/IntegratedPlanningManual.pdf).

Documenting Assessment

Guidelines

All SLOs for every course will be assessed at least once within the 5-year program review cycle. SLOs need to be assessed on a regular basis (every semester that the course is offered and discussed every year for programs at the time of Program Review). As our courses and programs change over time, it is natural for SLOs to change as well. It is important to have a plan in place to provide assessments for all SLOs. It is recommended to assess SLOs multiple times to reduce the likelihood of error. In order to know whether the outcome is met, it is also important to establish clear expectations of achievement prior to administering the assessment. The analysis and reflection of the results will then allow us to react accordingly. Assessment analysis and reflection are generally most easily recorded in annual program review documents. Please see *Everything You Need to Know about Student Learning Outcomes (SLOs) - Frequently Asked Questions for All College Employees* for more detailed information: http://www.citruscollege.edu/sloa/Documents/FAQs.pdf

Best Practices

SLO Assessment is as individual as all of our courses and programs. It needs to be meaningful for the reviewer(s), and assessment needs to be regular/continuous. There are many different techniques to assess the same outcome – they may be qualitative and/or quantitative. For instance, for programs with common SLOs, a single assessment can be designed to address multiple SLOs. For programs with many courses like Dance and Music, one can create a plan and group classes together in order to help make assessment documentation more manageable. Another option is to choose one SLO and create an assessment for that outcome and measure it for 3 semesters in a row, and then choose a different outcome for the next 3 semesters, and so on. All SLOs can be assessed within the cycle and patterns can be observed. If the target has been met consistently, consider revising your SLO or developing a new SLO statement.

The important step is to analyze and reflect on the results and use them to make improvements when necessary. We are all striving to improve student success as well as to provide an optimal learning and work environment for Citrus College students and employees. SLO assessment provides us the evidence to make informed decisions about changing our programs.

The following are several different examples of how faculty at Citrus College approach their process of student learning outcomes and assessment:

Astronomy

I think the process starts in writing the SLOs. When we put together the SLO's we developed ones that focused on the concepts and skills we felt were most important, and divided them up into the major competencies: so one in critical thinking, one in calculation, etc.

The three key ones I look at on exams are calculation, critical thinking, and communication. So, I simply make sure that each exam has at least one written question (not multiple choice) that is a calculation, one is a critical thinking question, and one is a more descriptive (communication) question. I also make sure that students have already done similar kinds of questions on in-class and homework assignments beforehand.

Let me give a more specific example. Our calculation SLO says that students should be able to calculate astronomical quantities and understand what those calculations mean. One type of calculation they do is calculate their weight on another world. So, on a homework assignment I ask them to:

- 1. Predict which planet in a solar system they would weigh most on (given basic data about those planets)
- 2. Calculate their weight on a few of those planets.
- 3. Comment on whether their prediction matched their result, and also whether the answer makes sense (if you find you weight a trillion times as much as you do on Earth, something went wrong with your calculation).

Then I give a similar question on an exam (with a different set of planetary data), and that's the one I assess for SLOs. This not only requires that they can plug numbers into a calculator. They also have to have a clear enough understanding of what they are doing to recognize what reasonable answers look like.

Dance

In the Dance Department, we have streamlined both the number of SLO's per course and how we assess them. Most classes have a number of SLO's that correspond to the number of units per course: one unit classes have one SLO, two unit classes have two SLO's, etc. This allows for a manageable system that provides for rich data collection concurrent with the pedagogical rigor of the course.

As to the process, we evaluate students very soon after the beginning of the semester. We give practical (meaning "on the floor") assessments of various techniques within the first two weeks of a class, and then ask the students where they would like to be at the end of the course. For example, ballet students are given pirouettes at the beginning of the course; pirouettes can be done in a single, double or triple turn fashion. If the student can only do a single, then they strive for being able to do doubles by semester's end. The particular step or mode of technique changes from semester to semester for depth and breadth of assessment. The same combination is given again at the end of the course to determine improvement in class outcomes. This data then informs changes of how we deliver pedagogy for the following year, or to determine which courses need additional sections as we program the schedule.

English

Each academic year the English department enlists three faculty members to serve as faculty leads. These instructors are tasked with taking a leadership position on SLO assessment. The department assigns the leads as follows: one lead for English 98 and 99 (developmental writing), one lead for English 101 (reading and composition), one lead for English 103 (composition and critical thinking). For English 102 and 251 and above (literature classes), one or more faculty members serve informally as the faculty

lead. The leads are assigned this way primarily because the department is so large that one instructor would find it somewhat cumbersome to manage all the samples required to get an accurate picture of student success. The department bases the division of work on the number of sections offered and the general similarity of SLOs in a particular group of classes. For instance, 98 and 99 are grouped together because the student learning outcomes, while by no means identical, are more similar than, for example, English 99 is to English 101.

Every semester the faculty leads gather samples of student work from adjunct and full-time instructors and enlist other instructors to help them read and assess these samples to determine if the students have met specific student learning outcomes. Our usual practice is to assess one to three SLOs per semester per group. For instance, many of the SLOs for the literature classes overlap, so we assess these as a group. In any one sample, we may only assess as few as one SLO per semester. Throughout the semester, the faculty leads engage in informal discussions about the SLOs with all faculty members. The department's written reflection comes during Flex or Convocation when we get a chance to discuss the results of our SLO assessment and determine how best to move forward with the process. In the fall semester, we reflect on the assessment data of the previous year to generate the program review report to determine how best to adjust our course offerings to meet the instructional needs of the campus.

Kinesiology

The process of creating a meaningful SLO starts with, well, the content. As subject matter experts we KNOW what students should be able to utilize at the end of a course. That fundamental understanding is what we use to develop course content, SLOs, objectives, and assessments that help us to determine the level of absorption. Now, because we are thoughtful people, that can mean creating a sort of brilliant "Ah" that informs the student (and the instructor) in one fell swoop of if transmission of the "disease" (LEARNING) has occurred. But, that being said: bright people often make things harder than easier.

The point of SLOs is to be able to have tools that:

-Help the student see what they know and where they need to go -Assist the teacher is creating an experience that is an integrated staircase toward "success", "completion", LEARNING, INNOVATION, ACADEMIC CURIOUSITY -Provide a framework to see if the methods ARE creating the desired result.

All of this is possible without recreating Babylon...if you so choose. Many of our colleagues have come to believe that assessment means numbers or mountains of evidence. The process we've dreamed up is cumbersome because that's what we've told ourselves it needs to be, but that's not written down anywhere. There are no tablets from on high that state that "Assessment must be PAINFUL to be effective". But again, if you want THAT- table for ONE.

What can assessment of SLOs be? Anything that will help you to be able to answer the 3 most important questions (listed above if you missed them). What if you created assessments (or already have THEM) that you could review and distill a fundamentally helpful truth? Did this course teach a student about one of the main objectives? Did this content meet the needs of the topic? Did I do something amazing that truly changed the acquisition of knowledge? What if assessment was merely CHECKING TO SEE WHAT WORKED?

If our idea about assessments could be simplified, could we fathom small quizzes, an interview, a one question assessment...any of which could help us divine if we were on course for spawning the disease of LEARNING? The very idea that a set of pop quizzes, or a sequence of particular events could not only tell us that students are learning, but that we are effectively transmitting information and some of it is being received would be useful, timely, reassuring. SLOs for you could take days, but for me take a few hours over the course of the term, because it is work we are already doing. The process of becoming aware that we are always assessing opens up opportunities for us to use what we are already doing to create the framework by which we discuss, evaluate, and improve our own tactical efficacy in the classroom.

The simple answer is you use the SLOs to decide the course content. For some, the assessments already have multiple SLOs embedded because we are moving students from the individual SLOs as they are introduced to information toward using multiple SLOs at once to show understanding of the total topic for the course. Therefore it makes sense that a single assessment (given later in the course) WOULD be able to assess multiple SLOs, the assessments & activities later in courses are harder. Gathering data using these types of activities lends itself to the sort of "planning, course improvements" that are made AFTER the course ends, not during the sequence.

But for those who want to 'course correct" along the way, quizzes, activities, etc that focus on one type of SLO objective, generally those we use to make sure students are all on the same page during the course can help to guide changes that we make mid-stream and impact the end result.

Both are used to collect data and can be used to assess effectiveness. An assessment/activity that hits only one SLO is not more or less valuable than an activity that evaluates multiple areas. Ultimately, if the course has not been updated in a while, the multi-SLO assessment helps to validate that the sequence is sound, where the single assessment/SLO activities can be helpful with teaching a new/unfamiliar course to assure both the learner and teacher that all are on a solid course forward.

How you pick, or what you pick is immaterial. If you notice an area that is a problem for students- start there. If there's nothing that a glaring issue, then just pick something. Anything can be improved, simplified, or replaced. Without change, we stagnate.

Part III: SLO Assessment Reports

Deadlines and Requirements

The ACCJC Annual Report is due annually each March. The SLO Implementation Report was required in fall 2012 to demonstrate proficiency of the accreditation rubric for SLOA.

ACCJC Annual Report

The Annual Report requests information about the college and success of our students; it includes a section on SLOA at all levels.

SLO Implementation Report

The SLO Implementation Report included data and reflection on SLOA efforts at the college to date. Please see the report for details:

http://www.citruscollege.edu/accreditation/midterm2012/slo/Pages/default.aspx

Part IV: Supporting Documents

Sample Program Student Learning Outcomes

Find more program-level student learning outcomes on the Intranet under the Program Review Document Library tab: http://intranet/ProgramReview/Documents/Forms/AllItems.aspx

Automotive Technology Program Student Learning Outcomes 02-22-2012

Students completing courses in the Automotive Technology Program will have acquired the following competencies:

- 1) Communication (personal expression and information acquisition)
- 2) Computation

3) Creative, Critical, and Analytical Thinking, and Information Competency

Acquire skills pertinent to industry level national certification exams in the transportation industry.

4) Community/Global Consciousness and Responsibility

Exit the program with a personal/professional commitment to uphold the high standards and uplift the integrity of the automotive industry.

5) Technology

Utilize knowledge acquired in the Automotive Technology program to maximize employment potential in the industry through successful completion of course level outcomes.

6) Discipline / (Subject Area Specific Content Material)

Speech Communication Program Student Learning Outcomes 12-15-2011

Students completing courses in the Speech Communication Program will have acquired the following competencies:

1) Communication (personal expression and information acquisition)

- Students demonstrate college-level understanding of communication theory and its practical application by reading analytically and critically.
- Write in grammatically correct English with clarity and fluency.
- Listen actively and speak articulately.
- Students adapt communication skills to a variety of audiences in a variety of contexts.

2) Computation

3) Creative, Critical, and Analytical Thinking, and Information Competency

- Students critically analyze communication issues.
- Students exercise creativity in the presentation of speeches.
- Students conduct college-level research and apply findings to support logical arguments.

4) Community/Global Consciousness and Responsibility

- Students communicate effectively within a diverse society.
- Students understand the vital role of ethics in communication.

5) Technology

6) Discipline / (Subject Area Specific Content Material)

Vocational Nursing Program Student Learning Outcomes June 2011

Students completing courses in the Vocational Nursing Program will have acquired the following competencies:

1) Communication (personal expression and information acquisition)

a) Use correct medical terminology and nomenclature, in the correct context, in order to effectively communicate health/medical information and concepts to others.

2) Computation

a) Demonstrate the ability to perform accurate calculations of intake and output, drug dosages, and IV rates.

3) Creative, Critical, and Analytical Thinking, and Information Competency

a) Develop problem-solving and self-assessment skills and make appropriate decisions regarding a variety of procedural situations.

4) Community/Global Consciousness and Responsibility

- a) Demonstrate the ability to interact with patients and work effectively as a member of the health care team.
- b) Provide culturally specific healthcare to all people.

5) Technology

a) Develop the ability to use and adapt to current technologies used in the healthcare setting.

6) Discipline / (Subject Area Specific Content Material)

a) Provide patient care that falls within the scope of practice as set forth by the BVNPT.

Sample Degree/Certificate/Skills Award Student Learning Outcomes

A.S. Degree Level Student Learning Outcomes

Students completing the Administration of Justice A.S. Degree will:

- 1.Demonstrate an ability to write clearly and accurately about the administration of justice process using an appropriate vocabulary
- 2. Demonstrate critical and analytical thinking about issues in the administration of justice system
- 3.Demonstrate a comprehension and appreciation of the connections, contributions, experiences, and potential conflicts of various ethnic groups, races, and genders as they interact with the criminal justice system
- 4.Demonstrate an awareness of sciences and emerging technologies as it impacts the administration of justice

A.A.-Transfer Degree Level Student Learning Outcomes

Students completing the Theatre Arts A.A.-Transfer Degree will:

- 1. Demonstrate acting techniques in a performance setting.
- 2. Exhibit fundamental knowledge of play structure and analysis.
- 3. Demonstrate a fundamental knowledge in core theatre elements, including Acting, Technical Theatre, and Theatre History.

Certificate of Achievement Level Student Learning Outcomes

Students completing the Audio Recording Technology Certificate of Achievement will:

- 1. Communicate effectively using proper vocabulary in written and verbal form to facilitate the technical and creative outcomes of a product.
- 2. Apply acoustic concepts and mathematical formulas to demonstrate understanding of wave theory, room acoustics, materials, and microphone and speaker placement.
- 3. Demonstrate understanding of the fundamental principles of audio through developing critical thinking, decision-making and problem solving skills by applying them to the studio, post-production and live sound environments.
- 4. Develop interpersonal skills, empathy, and respect for others by completing team projects in order to gain key skills expected of professionals in the field.
- 5. Demonstrate advanced computer competency by completing production assignments utilizing software-based production and editing systems.
- 6. Understand the technical, creative and interpersonal skills required by the entertainment industry through demonstrating thorough knowledge of digital audio workstations and all audio hardware as appropriate to each course.

Skill Award Level Student Learning Outcomes

Students completing the Nurse Assistant Skill Award will:

- 1. Communicate in English verbally and in writing using appropriate medical terminology.
- 2. Collect, calculate and interpret observations.
- 3. Develop problem-solving skills and make appropriate decisions regarding a variety of situations.
- 4. Provide culturally specific healthcare to all people.
- 5. Develop the ability to use and adapt to current technologies used in the healthcare setting.
- 6. Provide patient care that falls within the scope of practice as set forth by the California Department of Health Services.

Sample Curriculum/ SLO Assessment Map

Find more Curriculum Maps on the Intranet under the Program Review Document Library tab: http://intranet/ProgramReview/Documents/Forms/AllItems.aspx

Esthetician

CC 1: Communication	CC 4: Community/global consciousness and Responsibility
CC 2: Computation	CC 5: Technology
CC 3: Creative, Critical, ad analytical	
thinking, information competency	CC 6: Discipline/Subject Area Specific Content Material

CC1 Understanding the component of creating a professional atmosphere through observation, demonstration, client interaction and exams.	CC3 Develop confidence, proficiency and appreciate the specialized knowledge required for a lucrative career in a professional environment	CC6 a Recognize different facial treatment philosophies	CC6 b Master the art of makeup design and hair removal to ensure success in the industry	CC6 c Successfully complete 600 hours and passing Ca State Board exams	Date of Assessment= FA11, SP12 or CA=(Ongoing, Continuing Assessment)
---	--	---	---	---	---

COS 199 A—Esthetician I (8 Units), Applicability-C Last Offered-SP 12, Last Curriculum Date:SP10 , Curriculum Revision Date: SP 2016 Course Applicability Key: T=Transfer, D= Degree, C= Certificate, S= Skill Award								
SLO 1	SLO 1 I SP 12							
SLO 2		I	I	I	1			
SLO 3	SLO 3 I I,D I I							
SLO 4 I I,D I I								
	SLO Key: I= Introduced, D=Developed, M=Mastered							

COS 199 B—Esthetician II (8 Units), Applicability-C Last Offered-SP 12, Last Curriculum Date:SP10 , Curriculum Revision Date: SP 2016 Course Applicability Key: T=Transfer, D= Degree, C= Certificate, S= Skill Award								
SLO 1	SLO 1 D,M D,M D							
SLO 2	SLO 2 D D,M D,M D SP 12							
SLO 3 D D,M D,M D								
SLO Key: I= Introduced, D=Developed, M=Mastered								

COS 199 C—Esthetician Salon Success (3 Units), Applicability-C Last Offered-W12, Last Curriculum Date:SP10, Curriculum Revision Date: SP 2016 Course Applicability Key: T=Transfer, D= Degree, C= Certificate, S= Skill Award							
SLO 1	LO 1 D,M D SP 12						
SLO 2	SLO 2 D,M D						
SLO 3 D,M D							
	SLO Key: I= Introduced, D=Developed, M=Mastered						