Assessing Program-Level SLOs

November 2010

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What is a Program?

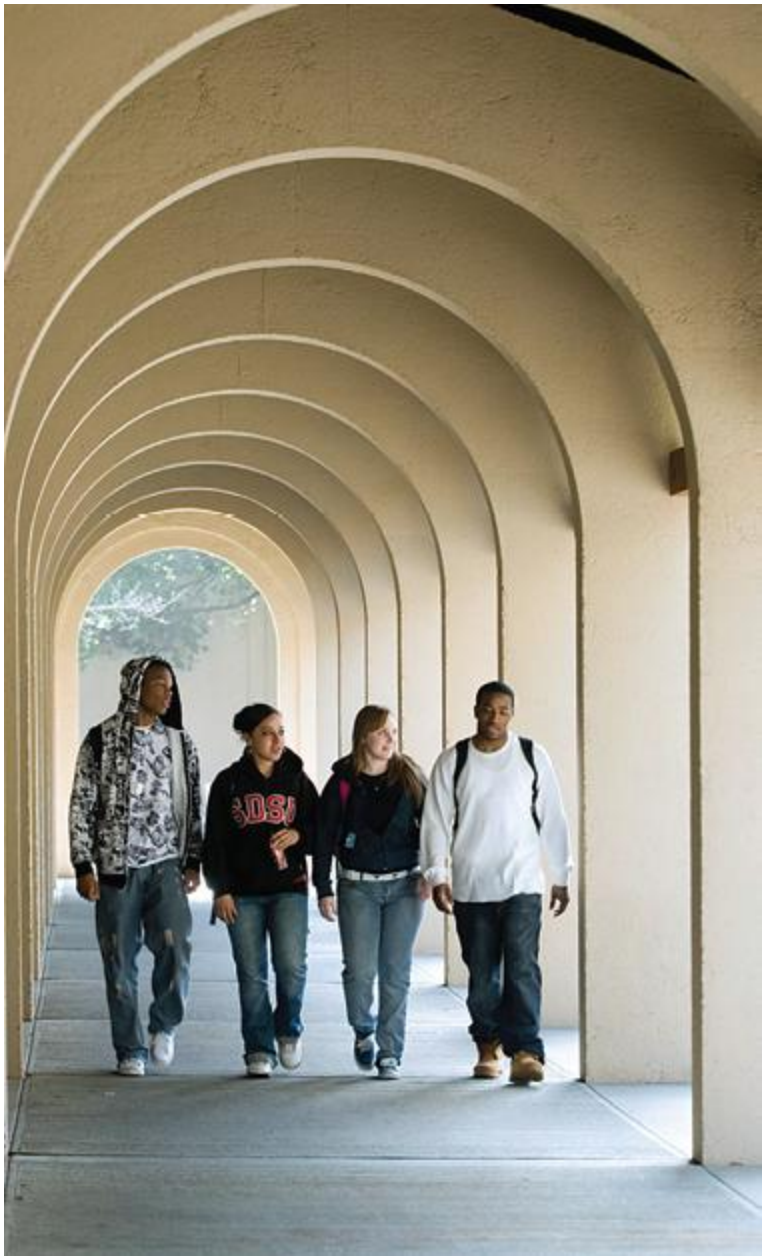
- Instructional programs are **more than a collection** of random courses.
- Each program **prepares** students for a goal, such as transfer to a university or entering the workforce.
- Each program **provides** students with a definite set of skills, knowledge, and attitudes.
- Instructional program level student learning outcomes **state these results** in measurable terms.

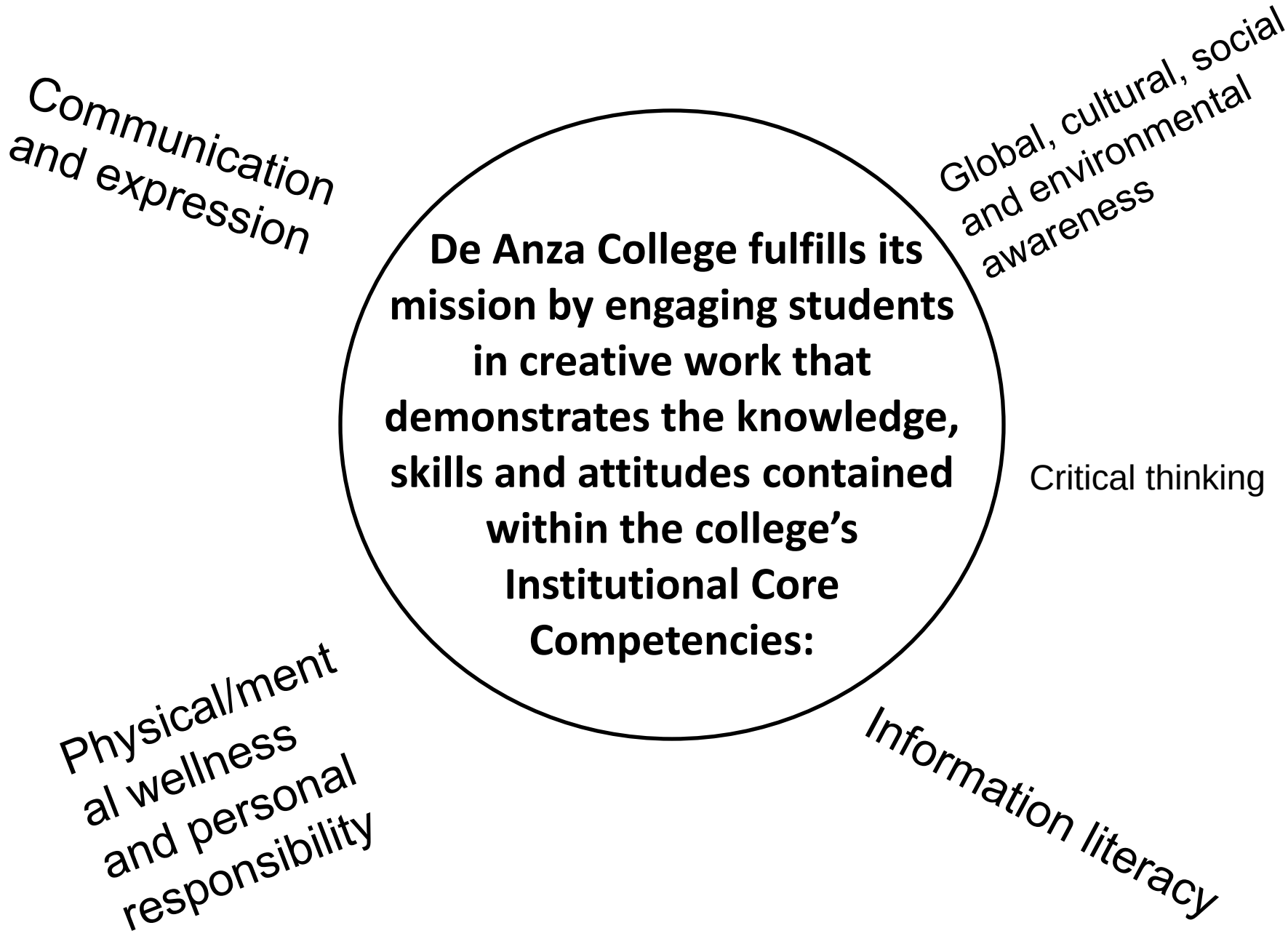
Alignment

- **Department vs. Program**
  - *Departments constitute the organizational management structure*
  - *Programs are the curricular management structure* of the instructional component for the Outcomes Assessment Process

The Mission

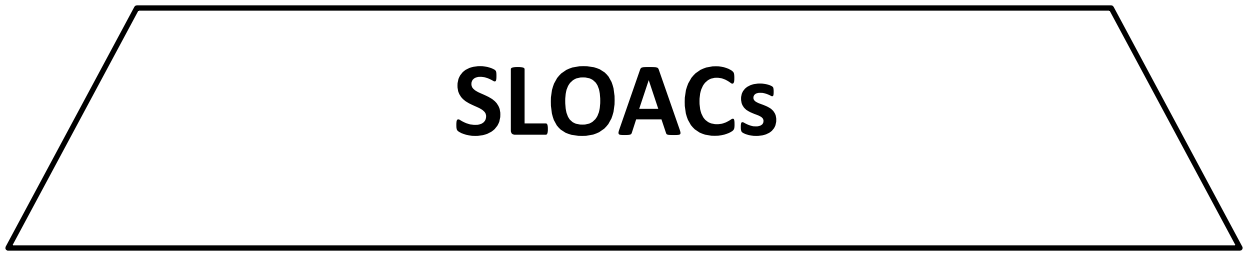
De Anza College provides an academically rich, multicultural learning environment that challenges students of every background to develop their intellect, character and abilities; to realize their goals; and to be socially responsible leaders in their communities, the nation and the world.



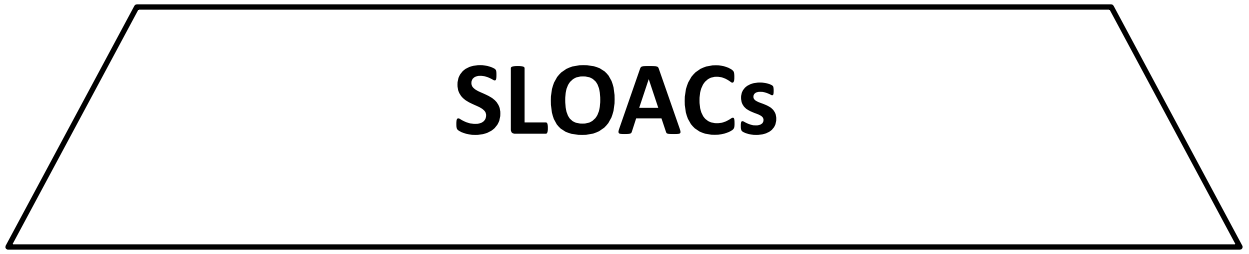

Communication and expression
Global, cultural, social and environmental awareness
De Anza College fulfills its mission by engaging students in creative work that demonstrates the knowledge, skills and attitudes contained within the college's Institutional Core Competencies:
Critical thinking
Physical/mental wellness and personal responsibility
Information literacy

Where We Have Been

- Courses: 1581
  - Those having SLOs: 1178
  - Those with SLOACs in progress: 111
  - Those with completed SLOACs (SLOs – Assessment –Reflection): 89




Mission
Statement
ICCs &
Strategic Initiatives

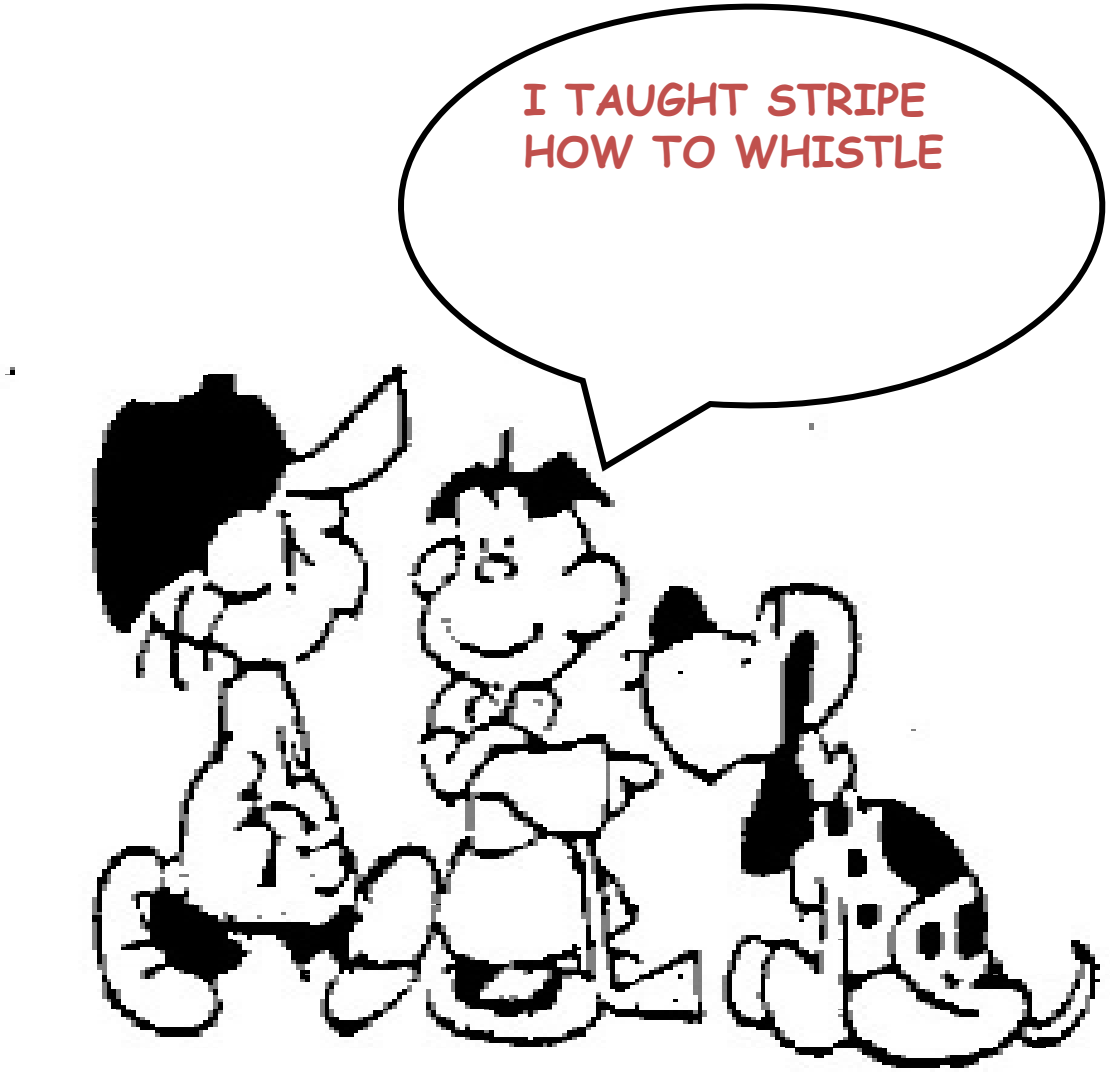

SLOACs


Mission Statement
ICCs &
Strategic Initiatives
Program Level SLOs and Assessments
SLOACs

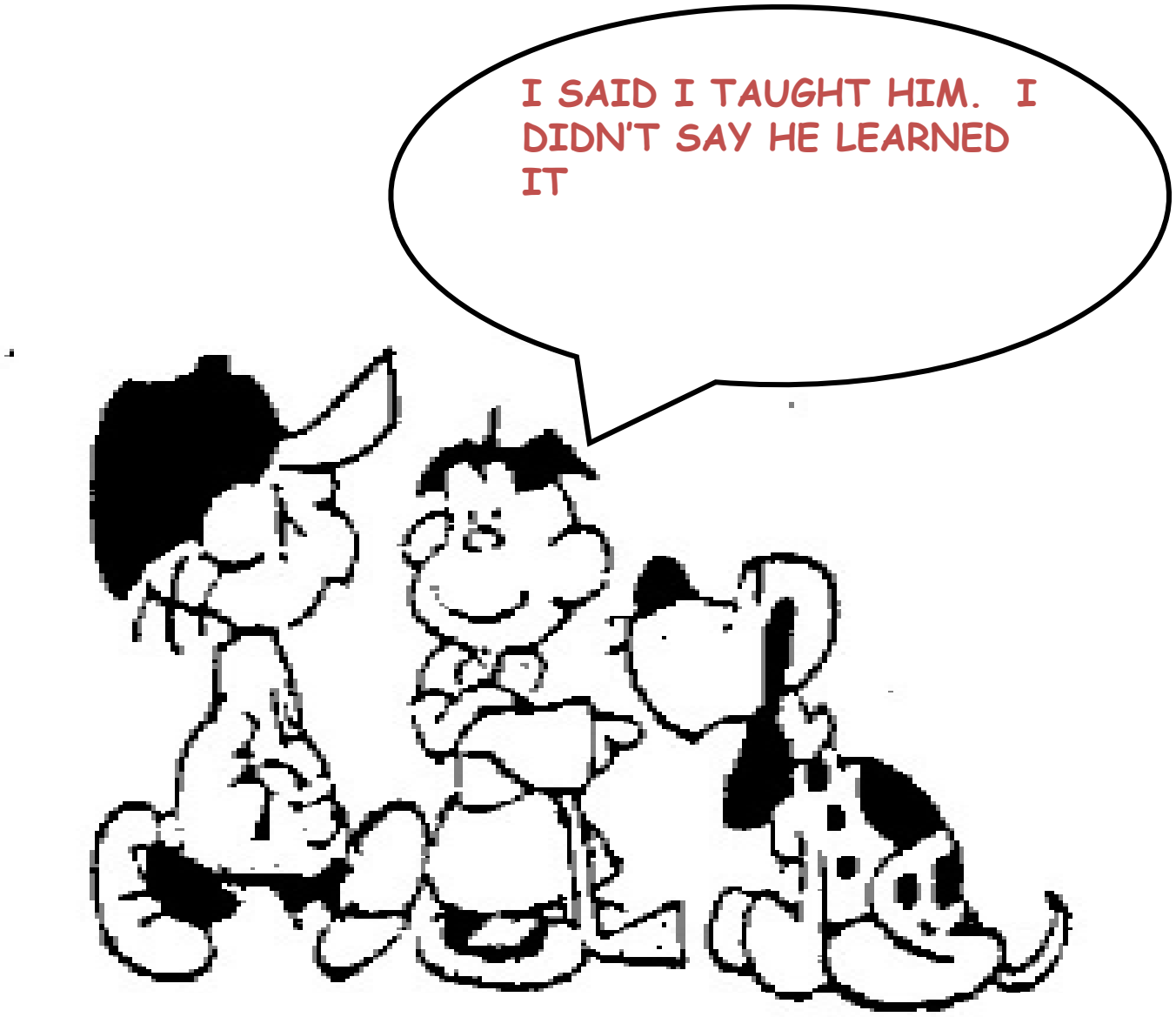
Alignment

By Curriculum Mapping

- Course SLOs > Program SLOs
- Program SLOs > Instructional Program Outcomes
- Instructional Program Outcomes > college's mission


I TAUGHT STRIPE
HOW TO WHISTLE


I DON'T HEAR HIM WHISTLING



(Leveque, 1999-2000)

Why Assessment of PLOs

- “Assessment helps us distinguish between teaching and learning.” (Leveque, 1999-2000)
- To what degree have students achieved the outcome?
- What facilitates/hinders students’ achievement of the learning outcome?

Motivation

- Program and Outcome Relevance in relation to College Mission and ICCs
- Continual Program Improvement
- Efficacy and Efficiency of Curriculum
- Accreditation

Key Questions

- Why are we proud of our students?
- Have we demonstrated through the PLOs and assessment what distinguishes us from other Institutions?
- To what degree have students achieved the outcome?
- Do PLOs accurately reflect everything we do in regards to the ICCs?
- What facilitates/hinders students' achievement of the learning outcome?

Assessment

Step One

Map Program Learning Outcomes
to
Institutional Core Competencies

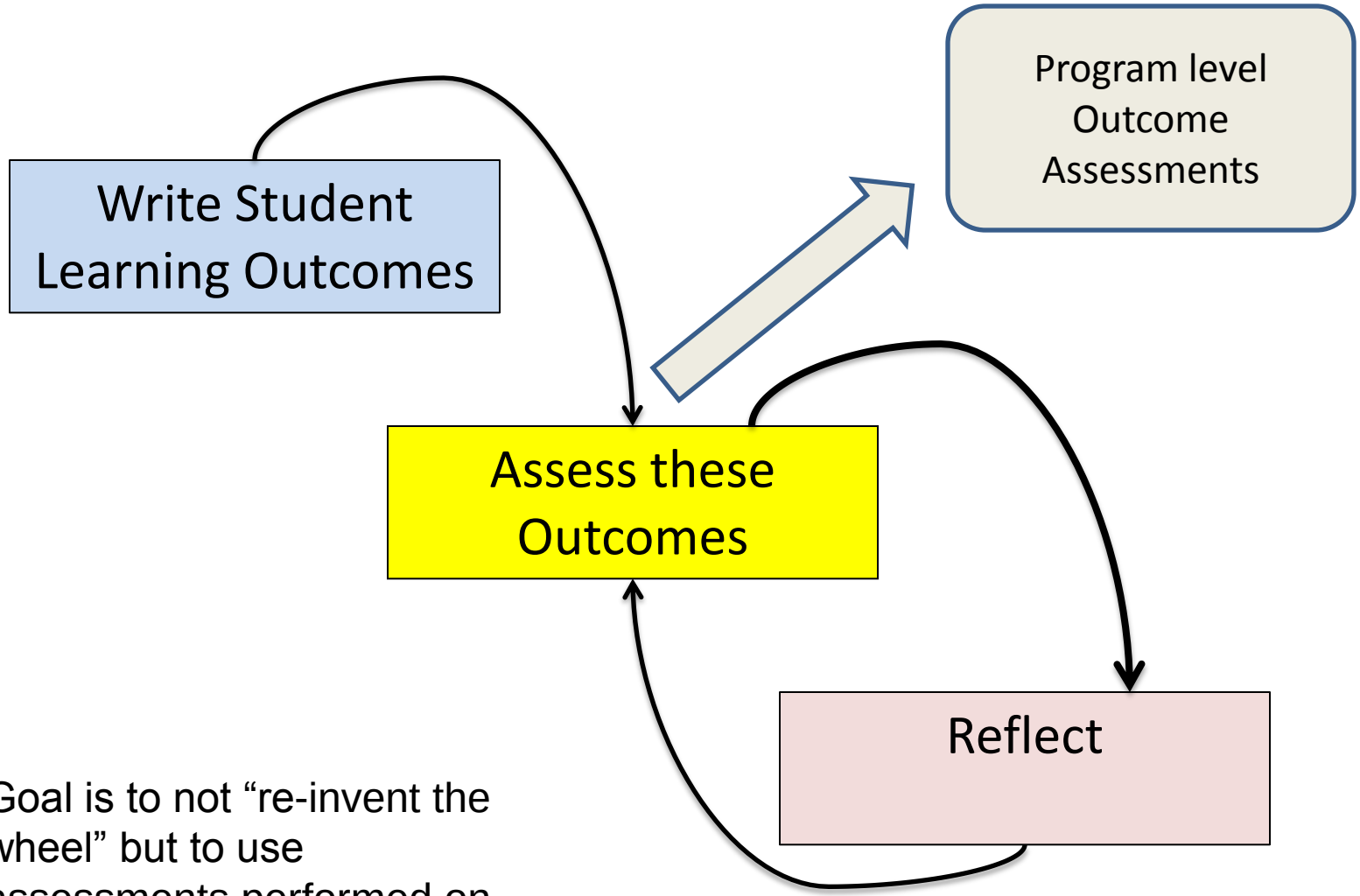
DE ANZA COLLEGE
Student Learning Outcomes (SLOs) Assessment Report
Program Assessment
Program Name:
Division (if applicable):
Program Contact Person: _____ Phone: _____
Date:
Attach additional pages as necessary.

ICC Number	Program Student Learning Outcomes	Means of Assessment and Criteria for Success	Summary of Data Collected	Use of Results	Timeline for Program Modification

Assessment

Step Two

Choosing Assessment Tools



Goal is to not “re-invent the wheel” but to use assessments performed on course level SLOs.

Assessment Methods

- Licensing or certification

http://www.surveymonkey.com/MySurvey_Responses.aspx?sm=a%2b1ZCwdxxnIECGAHefKdMBFylZHo33wtJuI7qa3lAaA%3d

Program level SLO for Pro/ENGINEER, Computer Aided design- Mechanical, and CDI A.S.:
Employer Satisfaction: Prospective employer will be satisfied with the technical expertise of the CDI graduate as it relates to the students capacity to use CAD tools …

- Portfolio (ePortfolio)

http://academic.regis.edu/LAAP/eportfolio/basics_types.htm

Assessment Methods (cont'd)

- Focus Groups

- Surveys
  - ✓Student entrance and/or exit
  - ✓Potential employers

- Entrance/Exit Student Tests

- Embedded course assessments

Examples

- Philosophy
- CDI
- PE
- CIS (the challenge of many programs)

Tono's Divisions: Counseling, Intercultural/International Studies, Language Arts, Learning Resources, Social Sciences and Humanities.

Mary's Divisions: Applied Technologies, Biological, Health and Environmental Sciences, Business/Computer Systems, Physical Education/Athletics, Physical Science/Math/Engineering, Special Education.

DE ANZA COLLEGE
Student Learning Outcomes (SLOs) Assessment Report
Program Assessment
Program Name: Philosophy
Division (if applicable): Social Sciences and Humanities
Program Contact Person: Antonio Ramirez **Phone: 408-864-5327**
Date: 11/15/10
Attach additional pages as necessary.

ICC Number	Program Student Learning Outcomes	Means of Assessment and Criteria for Success	Summary of Data Collected	Use of Results	Timeline for Program Modification

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Date: 11/15/10
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	Students will demonstrate a critically reflective and constructive attitude toward experience, which responds to the ethical demands of human life.				
	Students will be able to identify and analyze philosophical problems as found within a variety of world philosophical traditions.				

Mapping your SLOs to the ICCs

- Which of the ICCs do you see addressed in each of your program's SLO statements?
  - *Remember, it's ok if your program lends itself more readily to some ICCs than others!*

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2,4,5	Students will be able to identify and analyze philosophical problems as found within a variety of world philosophical traditions.				

Assessing Outcome #2

- This outcome may lend itself well to an embedded assessment
  - The outcome can (presumably) be assessed by looking at data gathered in our course-level SLOACs
  - We can build upon work that we've *already* done

Assessing Outcome #2

- Step one: Gather your program's course-level SLOAC reports
- Step two: Determine which course-level SLOs are most relevant to your program-level SLOs.
- Step three: Review the SLOAC reports for those outcomes

DeAnza College

ECMS: Course Outline & SLOAC Management

For Authorized Use Only

Logout

Return to Main Menu | Manage All SLOAC(s) | Back

SLOAC Print View (Opens in new, second window. Use browser controls to close when finished.)

SLO Assessment Cycle for PHIL 8

Ethics SLO Modified: [5/14/2010] [Outline Edit View]
(Assessment Only)

Hide All | Expand All

Outcomes:

Outcome 1: Statement

Identify and analyze central questions about right action and/or the good life.

Assessment Cycle Records:

Outcome 1: Assessment Planning [edit] Modified: [5/14/2010]

Assessment Strategy Used:
Quarter: Winter 2010
Assessors: Antonio Ramirez
Assessment Tools: Exams
Sections being assessed: 02

Outcome 1: Reflect & Enhance [edit] Modified: [5/14/2010]

Number of people involved in Reflection and Enhancement: 3

Changes:

Methods:
In order to determine the extent to which students were familiar with basic themes/problems in ethics, I included a few short answer questions on a final exam that were designed to reflect a fundamental awareness of two key moral theories (utilitarianism and Kantianism).

Summary:
The average score on the first question was 4.2 of 5. The average score on the second question was 3.4. I aimed for a target of 3 or higher. Only one student (of 50 in the section) missed the target for the first question, while 8 missed the target for the second.

Discussion among the department suggested that this was an authentic assessment of the SLO--though by no means the only way to assess it. I'm not certain that this assesement method is appropriate for the other SLOs in the course (as they are more analysis-oriented).The outcome seems to reflect my initial intuitions--while it seems that the majority of students did have a satisfactory understanding of basic moral concepts, I has suspected that the understanding of Kantian theory was a little lower than than of utilitarianism. Given the considerable complexity of the former theory, this is not entirely suprising. Overall, the data collected suggests that the SLO was met for the section--though there is absolutely room for improvement here.

Enhancement (Part I):
To enhance student understanding of basic moral theories, it may be a good idea to spend more time looking at applications of these theories to standard moral problems. Applications already are a major feature of the course, but I suspect that discussions could more explicitly address the role that these theories play in moral deliberation. Small-group discussions will be employed during the next iteration of the course in attempt to facilitate this.

Enhancement (Part II):
No recommendations for this SLO.

Outcome 2: Statement

Analyze and assess arguments and approaches to these questions from a variety of traditions.

Outcome 2: Assessment Planning [edit] Modified: [5/14/2010]

Assessment Strategy Used:
Quarter: Winter 2010
Assessors: Antonio Ramirez
Assessment Tools: Written Reports
Sections being assessed: 02

Outcome 2: Reflect & Enhance [edit] Modified: [5/14/2010]

Number of people involved in Reflection and Enhancement: 3

Changes:

Methods:
To examine this SLO, an assessment was embedded into paper assignments

Outcomes:

Outcome 1: Statement

Identify and analyze central questions about right action and/or the good life.

Assessment Cycle Records:

Outcome 1: Assessment Planning [edit] Modified: [5/14/2010]

Assessment Strategy Used:
Quarter: Winter 2010
Assessors: Antonio Ramirez
Assessment Tools: Exams
Sections being assessed: 02

Outcome 1: Reflect & Enhance [edit] Modified: [5/14/2010]

Number of people involved in Reflection and Enhancement: 3

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Enhancement (Part II):
No recommendations for this SLO.

Outcome 3: Statement Modified: [9/9/2010]

Articulate and defend one's own stance on at least one 19th and 20th century philosophical problem, figure or theory.

Outcome 3: Reflect & Enhance Modified: [10/20/2010]

Number of people involved in Phase III: 3

Changes:
This is the first time through, so there were no changes.

Methods:
Students write papers for this class, and I went through an looked for originality in the main arguments of their paper.

Summary:
The paper were put into 4 categories:
Very original: 16%
Somewhat original:44%
Repeated almost entirely what was said in class: 38%
Lacked coherence, so couldn't tell: 2%

Enhancement (Part I):
I was happy with these results, and in the future will do more to encourage originality in paper topics.

Enhancement (Part II):

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2,4,5	Students will be able to identify and analyze philosophical problems as found within a variety of world philosophical traditions.	Results from the SLOAC for PHIL08 outcome #1, PHIL20 #2, and PHIL 01 #2 were compared for consistency. Success in meeting this SLO would involve (at least) a consistent mastery of texts across these three courses, as seen in test and paper results for the relevant course-level SLOs.			

Guiding questions

- Which course-level SLOs are *relevant* to the program-level SLO that you want to assess?
- If there are multiple courses with relevant/similar SLOs, can we compare them for *consistency?*
- Are the course-level SLOAC results *enough* to indicate success in the program-level SLO?

Points worth considering

- Remember that the SLO process is inherently *cyclical*.
  - *It's ok if your assessment leads you to make changes to your SLO statements.*
  - *It's also ok if your program-level assessment leads to discussions about the authenticity of course-level assessments.*

DEPARTMENT WITH CHALLENGING NUMBER OF PROGRAMS TO ASSESS

Computer Information Systems

(approx 14)

The Theory

The following curriculum alignment matrix demonstrates how to verify that all program outcomes are addressed at various levels (Introduced, Practiced, Demonstrated) by courses in the program.

CERTIFICATE: Programming in C/C++

Program Outcomes: I = Introduced
P = Practiced D = Demonstrated

Course	Read, analyze and explain advanced C/C++ programs	Design solutions for advanced problems using appropriate design methodology incorporating advanced programming constructs.	Create algorithms, code, document, debug and test advanced level C/C++ programs using multiple source and header files.
CIS 15AG Intro. to Computer Programming Using C 4.5	I	I	I
CIS 15BG Intermediate Problem Solving in C 4.5	I,P	P	P
CIS 15C Data Structures 4.5	P,D	P,D	P,D
CIS 26B Advanced C Programming (4.5)	P,D	P,D	P,D
CIS 27 Programming in C++ for C Programmers (4.5)	I,P,D	P,D	P,D

Certificates with CIS 14A

Business Programming	CIS 14A	Design and develop business applications complete with user interface, algorithms and storage.
	CIS 3	Analyze business requirements and create systems that meet the requirements.
	CIS 66	Design and implement network topologies using knowledge about modern networks.

Web Development	CIS 14A/ CIS 15AG	Create algorithms, code, document, debug, and test introductory level programs in a high-level programming language.
	CIS 89C	Create web pages using Extensible Hypertext Markup Language (XHTML), Cascading Style Sheets (CSS), JavaScript, and the Document Object Model (DOM), and demonstrate how they interact together within a web document. (CIS 89C)

System Support Services	CAOS 91BM	Demonstrate correct format for creating memos and letter using a word processing software.
	CAOS 93AM	Create spreadsheets to solve business problems.
	CAOS 110M	Use of database software to create, search, modify and arrange information.
	CAOS 130M	Create a text/graphics presentation using presentation graphics software.
	CIS 14A/ CIS 15AG	Design and implement solutions for introductory level problems using appropriate design methodology incorporating elementary programming constructs.
	CIS 14A	Design and develop business applications complete with user interface, algorithms and storage.

Certificates with CIS 15C

Programming in C/C++	CIS 15C/ CIS 26B/ CIS 27	Read, analyze and explain advanced C/C++ programs
	CIS 15C/ CIS 26B/ CIS 27	Design solutions for advanced problems using appropriate design methodology incorporating advanced programming constructs
	CIS 15C/ CIS 26B/ CIS 27	Create algorithms, code, document, debug and test advanced level C/C++ programs using multiple source and header files.

Network Programming Certificate of Achievement – Advanced	CIS 75B	Design solutions for advanced network problems creating distributed programs using Transport Control Protocol and Internet Protocol
	CIS 15C/ CIS 26B	Create algorithms, code, document, debug and test advanced level C programs using multiple source and header files.
	CIS 18A	Use Unix/Linux utilities and shell features for file manipulation and communication

Systems Programming Certificate of Achievement – Advanced	CIS 15C/ CIS 26B/ CIS 27	Create a design, implement and debug solutions for computing systems of different levels of complexity using C or C++.
	CIS21JA	Create a design, implement and debug solutions for embedded systems like 8086 IA32 processor or using Assembly Language.
	CIS 18A	Use Unix/Linux utilities and shell features for file manipulation and communication.

The Timeline for PLO Assessment

Instructions: For your program, indicate the primary course(s) in which your students demonstrate the program outcomes and in which year you will collect course assessment data. Data analysis occurs the year following data collection. During a five-year period, it is assumed that all outcomes will have been assessed. Accreditation requirements for specific programs may need to be coordinated in a different cycle.

Outcomes Assessment Plan

2010

Program Outcomes	2010-11	2011-12	2012-13	2013-14	2014-15