February and March, 2014

DEPARTMENT CHAIR

RE: Program Learning Outcomes Annual Report

Dear Department Chair,

Thank you again for the submission of your department's Program Learning Outcomes (PLOs), curriculum matrix, and assessment plan. Establishing assessment of program learning outcomes is a campus priority that will benefit the students, the programs, and the institution as a whole. We ask for a short annual report to provide an update on program assessment efforts and findings. We request this report by June 30th of each year. Please prepare the Annual Report using the guidelines attached, and these are also posted under Annual Program Assessment http://planning.ucsc.edu/irps/assessment/ (middle of the page). The full report is requested for your undergraduate program. If your graduate program is on a multi-year assessment cycle, you need only answer the first three questions this year, and that should be straightforward since your rubrics have already been created. Each annual report will play a vital role in preparing your department for its next self-study and our campus as a whole for our upcoming institutional review. Please let me know if you have any questions.

Sincerely,

Herbert Lee

Vice Provost Academic Affairs

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Enclosure: Annual PLO Report

CC: Department Manager Research Analyst Sher

Annual PLO Report

Overview: We ask each program to provide an annual report on program learning outcome (PLO) assessment activity, results, and conclusions. While the creation of this report may stimulate significant reflection among the program faculty, the report itself should be kept brief.

Purpose. The immediate goals are to document the criteria and standards of performance for student learning and to summarize an annual assessment study's methods and findings. The report is designed to facilitate the faculty's discussion and decisions regarding the quality of the curriculum, pedagogy and advising, as well as to improve the program's ability to engage in effective, meaningful assessment.

The long-term goal is to create a historical record of the faculty's standards of performance for student learning, assessment methods and findings, and program improvements. In this regard, the annual PLO report is an essential and effective tool for ensuring continued engagement in assessment that adequately prepares the department for conducting the self-study, part of the program review process.

Furthermore, annual PLO reports will provide systematically collected evidence of student learning for campus-wide assessment of the core competencies, and thus enable assessment at the campus-wide level without requiring additional data collection. Campus-wide assessment is needed for preparation of an institutional self-study, and it supports institutional transparency and accountability.

Submission: The report should be submitted to the Vice Provost for Academic Affairs (and if not submitted by the department chair, the chair should also receive a copy) by June 30 each year.

Audience: The annual PLO report is written for the current and future faculty teaching in the program. The report will also be read by the Vice Provost for Academic Affairs (VPAA), the Senate Committee on Educational Policy (CEP) and the Graduate Council as appropriate, the respective Academic Dean, and the campus specialist on assessment. In addition, excerpts from these reports could be included in department and campus self-studies reviewed by the campus community, external reviewers, accreditation agencies, and the public.

Required documents to be included in the report or in Appendix: For direct evidence, include rubric(s), student assignments, and 2-4 examples of student work exemplifying faculty's standards; for indirect evidence, include questions/prompts used in collecting student self-evaluation.

For graduate and some undergraduate programs that have two- or three-year assessment cycles for their PLOs,

- in years for which you are only collecting evidence, please complete sections 1-3 of the report and provide a rubric in the Appendix , and
- in the year when you conclude the assessment cycle, provide a full report.

Format Guidelines:

There are six sections in this report as described below.

1. Summary of assessment activities

Briefly describe the PLO assessment-related activities conducted in this academic year.¹ Please acknowledge by name faculty members, graduate students, and staff who participated in this annual assessment.

For example:

In Fall 2013 the undergraduate curriculum committee met three times to develop the PLO statements, a curriculum matrix, and a multiyear assessment plan. Information about the required and elective courses addressing specific PLOs was collected from all instructors. The department approved the three documents on December 1, 2013. The PLO statements and the curriculum matrix were then posted on the departmental website.

In winter 2014 the curriculum committee developed a rubric for assessing PLO 3 and PLO 4 (we used the Inquiry and Analysis VALUE rubric as a starting point). In spring 2014 student work was collected, analyzed, and discussed by the committee. This report presents the results pertaining to PLO 3 and PLO 4 based on both direct and indirect lines of evidence and recommendations.

The Undergraduate Curriculum Committee included Professors A, B, and C. Graduate students and the department manager assisted with data compilation.

2. Introduction

Introduce readers to the program learning outcomes established in your program and indicate the PLO(s) evaluated this year. What assessment questions did you pose? Specifically, what did the faculty want to know and achieve?

3. Assessment Methods

Describe the assessment methods and the process used to evaluate student learning with respect to each PLO. The description will provide insight into the validity and reliability of the results.

Please specify the following in describing direct and indirect sources of evidence separately:

¹ We recommend using the six steps of the assessment process as a framework (please see p. 3 in the UCSC Guidelines on Development and Assessment of Program Learning Outcomes).

a. Sample size, sampling strategy (e.g., all or a proportion of students enrolled in XX course, respondents to UCUES survey), and some key characteristics of students selected (e.g., seniors, representative in terms of academic preparation (GPA));

- b. Type of student work/source of evidence. For direct evidence please include (in this section or in the Appendix) an actual assignment such as a signature assignment, capstone project, or questions embedded in the final exam; also describe indirect evidence, such as a prompt for a self-reflection paper, survey questions, or guiding questions for focus groups.
- c. Process for rubric development and collection of evidence. Who (e.g., faculty committee, course instructors, grad students) was involved in rubric development and in review of student work? Please note steps taken to ensure a collaborative process of articulating criteria and standards in the rubric. Did the faculty and other readers meet to ensure high levels of agreement among individuals applying the rubric to student work (inter-rater reliability)? Please include the actual rubric used in evaluating student work in an Appendix.

Here is an example of a rubric to evaluate the PLO "Application of methods to solve problems" at a PhD Qualifying Exam (QE):

| Criteria | Did not meet | Almost met | Meets | Exceeds expectations |
|---|---|--|---|---|
| | expectations | expectations | expectations | |
| Selection of appropriate methods to the problem | Methods identified are insufficient or inappropriate | Methods address most but not all of the parts of the problem, or are not fully appropriate | Methods are appropriate and reasonably likely to produce a useful answer to the problem | Methods are appropriate and original, with significant adaptation to the particular problem |
| Proper implementation of the methodology | Implementation plan lacks sufficient detail or is incorrect | Implementation plan omits some details or contains items of questionable accuracy | Implementation plan is sufficiently articulated and technically correct | Implementation is partially complete, fully correct, and producing useful preliminary results |

4. Results

Summarize in written and tabular (or graphical) form the results of the analyses of the direct evidence of student learning with respect to each of the PLOs being evaluated. Specify the percentages of students who met or exceeded faculty's expectations for each one of the criteria for a given PLO. You might consider using the rubric to present the results in a table where each cell indicates % of students evaluated who met each of the criteria at each of the specified levels:

PLO: Application of methods to solve problems (QE)

| Criteria | Did not meet | Almost met | Meets | Exceeds | N of |
|---|--------------|--------------|--------------|--------------|----------|
| | expectations | expectations | expectations | expectations | students |
| Selection of appropriate methods to the problem | 0% | 5% | 75% | 20% | 74 |
| Proper implementation of the methodology | 0% | 22% | 66% | 12% | 74 |

For each PLO evaluated, briefly summarize the findings of the indirect source(s) such as student surveys, focus groups, or self-reflection papers.

Here are some guiding questions:

a. Are your students meeting your program's performance expectations as described in the rubric?

- b. Do direct and indirect sources of evidence support similar conclusions?
- c. If you conducted comparative analysis based on frosh/transfer status, first generation status, race/ethnicity, or gender, are there any differences in student outcomes? If relevant comparative data is available for your indirect evidence, please discuss it in this section.

5. Conclusions & Recommendations

a. Student Learning

Describe the implications of the results, integrating direct and indirect evidence of student learning and the curriculum alignment results, as relevant. Recommend actions to improve student learning with respect to desired intellectual skills and knowledge as well as a timeline for implementation. Examples of types of actions include: (1) instruction (e.g., redesigning assignments, adopting new pedagogies, adding TAs); (2) curriculum (e.g., adding an intermediate level course, re-sequencing program curriculum); (3) adjusting pre-requisite courses; (4) co-curricular support for student learning (e.g., tutoring, library instruction); or (5) communicating expectations to students (e.g., explaining how a course and/or a specific assignment helps students develop PLOs in course syllabi).

b. Assessment Methods

Briefly describe what worked and did not work in this assessment process and how it can be improved. Identify practices that can be improved immediately and those to be established as long-term goals. Consider issues like the precision of the research question, appropriateness of the evidence, factors affecting the measurability of the PLO, and validity of the results. In relation to the latter two Items, consider the verb of the PLO. Is it sufficiently precise to promote shared performance expectations among faculty and students and meaningful assessment? Active verbs like "demonstrate by ..." or "solve," that show how learning is applied, support student learning (and its assessment) more effectively than verbs of general cognition such as "know" or "understand." Additionally, do faculty share a common understanding of what a particular level of performance looks like, i.e. have the faculty discussed and looked at sample papers so that different individuals could reliably draw the same conclusions about the quality of student work?

6. Implications of Proposed Changes

Are there resources that will be needed to implement the above plans for improvement? How and where will such resources be obtained?

7. Appendices

Please be sure to append any **rubrics used to evaluate student work, student assignments,** and **representative examples of scored student work**. This will support the faculty's assessment and comparison of the results when revisiting the PLO in the future as well as the examination of student learning during program review. Similarly, your program might also consider including relevant meeting summaries, summary reports, or memos.