Occidental COLLEGE
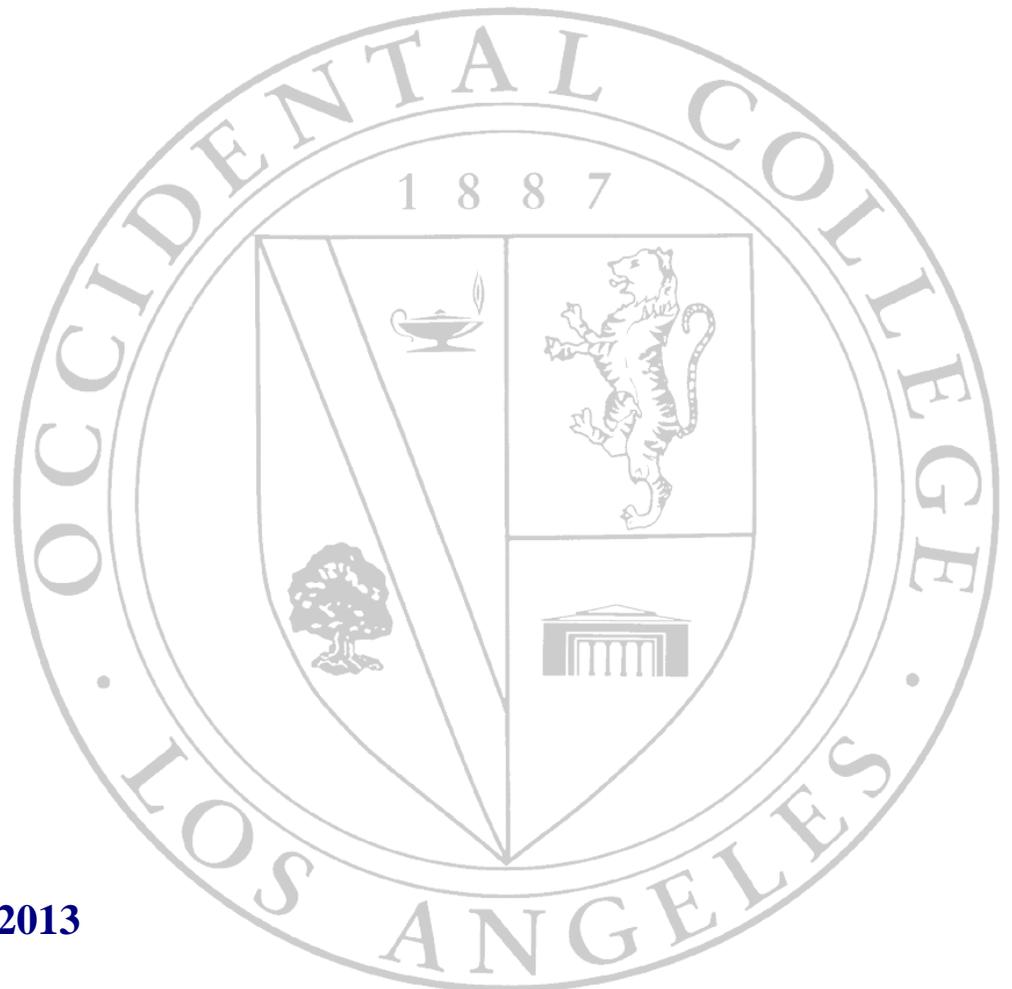
Assessment Handbook

Academic Quality Assurance an Improvement
for a Liberal Arts College

CONTENTS

PURPOSE STATEMENT

The purpose of academic assessment at Occidental College is to improve the overall educational experience of our students. This is achieved through assessment activities based on institutional values that aim to produce relevant and functional data for aligning curricular design, course content, pedagogical approaches, and student services with the college's mission and values.

In all assessment activities faculty and staff endeavor to take full consideration of the different educational and cultural backgrounds of our diverse student population. Faculty and staff are also encouraged to take advantage of both curricular and co-curricular learning assessment opportunities, and to address not only knowledge and skill, but values and beliefs as well.

The focus of academic assessment is most often at the department/program or institutional level. Course assessments can (and should) be undertaken by faculty for their own awareness of the efficacy of their courses, but assessment results will not be tied to faculty reviews or staff performance evaluations. The primary objective of our assessment program is to establish a practice of action research that informs planning, and results in tangible improvements for our students. Supporting this overarching objective, the college recognizes the following beneficial uses of assessment:

- to examine the appropriateness of scope, depth and rigor of the curriculum
- to evaluate the effectiveness of new courses, pedagogy, content, etc.
- to ensure that program goals are aligned with the institutional mission and learning goals
    - to ensure that course assignments and exams are aligned with program goals
- to integrate discussions about learning into program and institutional planning, and to facilitate resource allocation

ASSESSMENT PLAN GUIDELINES

The Program Assessment Plan is designed to assist programs in articulating their mission, goals, and learning outcomes in order to clarify the criterion for success for student achievement. Academic quality assurance requires planning and preparation, and the assessment plan will assist departments in developing a strategy to systematically explore student achievement for all of its stated learning goals. In addition, the plan specifies how the program's mission, goals, and learning outcomes are integrated into the curriculum, how they will be measured, and how data will be collected, reported, and used in planning decisions. Although the plan will serve as a guiding document for the program, it is intended to be flexible and current, and programs are encouraged to update it as needed.

Guiding Principles

Assessment at Occidental College is guided by the following principles:[1]

1. *Assessment is mission-centered.* Assessment activities will be based on each program's mission, purpose, and educational values, which are closely aligned with those of the institutional as a whole. When this is the case, assessment results will be more relevant, meaningful, and ultimately more useful for the aim of improving the program under study.

2. *Assessment addresses the complex nature of learning.* The approach to assessment takes into account the different backgrounds and learning styles of the student population, the multitude of learning opportunities both inside and outside the classroom, and looks at student values and attitudes together with knowledge and skills.

3. *Assessment is integrated into the life of the college.* The results of assessment are shared not only among faculty, but also with administrators, student affairs personnel, and students whenever appropriate. In addition, results are regularly reviewed and referenced in curricular, financial, space, and strategic planning.

Relationship to Program Review

Each academic program should have a Program Assessment Plan in place prior to entering the Program Review process. The plan will also be used as a basis for completing annual Program Assessment Reports, which in turn will be compiled for use in Program Review. In this way the Program Assessment Plan, annual Program Assessment Reports, and Academic Program Reviews are closely linked.

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[1] Adapted from: American Association for Higher Education, *9 Principles of Good Practice for Assessing Student Learning*, 1996; < http://ultibase.rmit.edu.au/Articles/june97/ameri1.htm >.

Elements of the Plan

I. Heading
State the program name, current director or department chair, all other relevant authors or contributors, and the date of completion.

II. Mission
Provide a condensed 1-3 sentence statement describing the overall purpose and basic function of the program. In a second paragraph (or bulleted list) provide the educational philosophy, values, and/or guiding principles of the program. Each program's mission should be closely aligned with the College mission and its cornerstones. Note also that the program mission statement should appear consistently in all publications and web pages describing the program.

III. Learning Goals and Outcomes
Provide 3-5 primary goals, and as many supporting learning outcomes as needed under each goal. Goals should reflect the general knowledge, skills, and attitudes that students will develop during the time they are taking the program's courses. Outcomes should clearly state what students will do or produce to demonstrate their learning within a specific time frame, such as a semester, an academic year, etc. Keep in mind that both the achievement of goals and the demonstration of outcomes can occur either inside or outside the classroom.

Learning outcomes typically use the following formula:

Students will...	+	Behavior	+	Resulting Evidence
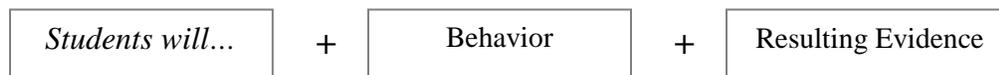
Resulting Evidence refers to the work that students produce to demonstrate their learning, such as papers, exams, presentations, performances, portfolios, works of art, musical compositions, lab results, etc. An important clarification should be made when writing learning outcomes regarding whether the evidence will provide absolute or value added achievement. For instance, a learning outcome could be written in this way: "Students will apply the scientific method" (absolute); or in this way: "Students will improve their understanding of the scientific method" (value added). Value added outcomes may be useful in specialized programs that are not driven by disciplinary requirements, and in general, degree programs will typically make use of absolute outcomes. The distinction is important to keep in mind when writing outcomes in order to use language that clearly states the expectations.

The behaviors in the formula should be associated with the appropriate learning level. The depth-of-processing theory most typically used to develop learning outcomes comes from the cognitive domain in Bloom's Taxonomy.[2] According to Bloom's theory the cognitive domain is grounded in *knowledge* and ascends multiple learning levels, eventually developing into *evaluation*:

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[2]   B. S. Bloom (Ed.), *Taxonomy of Educational Objectives: The Classification of Educational Goals*, White Plains: Longman, 1956.

- **knowledge**: to know specific facts, terms, concepts, principles or theories
- **comprehension**: to understand, interpret, compare, contrast, and explain
- **application**: to apply knowledge to new situations, to solve problems
- **analysis**: to identify the organizational structures of something; to identify parts, relationships and organizational principles
- **synthesis**: to create something, to integrate ideas into a solution, to propose an action plan, to formulate a new classification scheme
- **evaluation**: to judge the quality of something based on its adequacy, value, logic, or use.

The theory has been revised since 1956 by other learning theorists, but it continues to stand a useful starting point for developing cognitive learning outcomes. Outcomes for basic *knowledge* acquisition, for instance, might use actions like "find", "describe", or "list"; outcomes requiring *comprehension* might use "explain", "distinguish", or "compare"; outcomes for the *application* of knowledge might use "illustrate", "solve", or "use"; and so on. The chart below shows some common behaviors associated with each level.[3]

Evaluation	Synthesis	Analysis	Application	Comprehension	Knowledge
Appraise	Arrange	Analyze	Apply	Arrange	Cite
Assess	Assemble	Break down	Change	Classify	Define
Choose	Categorize	Calculate	Compute	Convert	Describe
Compare	Collect	Categorize	Construct	Defend	Identify
Conclude	Combine	Compare	Demonstrate	Diagram	Indicate
Contrast	Compile	Contrast	Discover	Discuss	Know
Criticize	Compose	Criticize	Dramatize	Distinguish	Label
Decide	Construct	Debate	Employ	Estimate	List
Discriminate	Create	Determine	Illustrate	Explain	Match
Estimate	Design	Diagram	Interpret	Extend	Memorize
Evaluate	Devise	differentiate	Investigate	Generalize	Name
Explain	Explain	Discriminate	Manipulate	Give examples	Outline
Grade	Formulate	Distinguish	Modify	Locate	Recall
Interpret	Generate	Examine	Operate	Outline	Recognize
Judge	Manage	experiment	Organize	Paraphrase	Record
Justify	Modify	Identify	Practice	Predict	Relate
Measure	Organize	Illustrate infer	Predict	Report	Repeat
Rate	Perform	Inspect	Prepare	Restate	Reproduce
Relate	Plan	Inventory	Produce	Review	Select
Revise	Prepare	Outline	Schedule	Suggest	State
Score	Produce	Question	Shop	Summarize	underline
Select	Propose	Relate	Sketch	translate	
Summarize	Rearrange	Select	Solve		
Support	Reconstruct	Solve	Translate		
value	Relate	Test	Use		
	Reorganize				
	Revise				

It is important to keep in mind, however, that the cognitive domain is only one of three learning domains laid out by Bloom. The others are the psychomotor domain and the affective domain. Although not traditionally part of the learning that is assessed in higher education, there is

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[3] Adapted from Gronlund, N. E., *How to Write and Use Instructional Objectives* (4th ed.) New York: Macmillan, 1991.

growing interest in using these domains to help us assess the total educational experience.[4] The psychomotor domain can be considered in developing learning outcomes, for example, to assess student ability in using tools in the creation of art or lab equipment in the sciences. And the affective domain can be considered in developing learning outcomes to assess student self awareness or value development.

For clarity in the assessment plan, goals and outcomes should be presented accordingly:

Goal 1:
- Outcome 1.1
- Outcome 1.2
- *etc.*

Goal 2:
- Outcome 2.1
- Outcome 2.2
- *etc.*

EXAMPLE: from the Kinesiology program.

Goal 1: Critical Thinking**:** Students should learn how to engage in critical, evidence based thinking.
- Outcome 1.1: Students will analyze the strengths and weaknesses of empirical research and theories in kinesiology.
- Outcome 1.2: Students will locate (via library and internet), critically examine, and evaluate primary literature in kinesiology and sports medicine.

IV. Alignment with College Wide Learning Goals
The goals of the academic department need to be aligned to the approved set of college-wide student learning goals. (see: https://www.oxy.edu/academics/college-wide-learning-goals).

GOALS	Dept Goal #1	Dept Goal #2	Dept Goal #3	Dept Goal #4	Dept Goal #5
CWLG #1	x		x	x	
CWLG #2	x	x			x
CWLG #3	x	x	x		
CWLG #4.1		x		x	
CWLG #4.2					

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[4] See, for example: Mary Miller, "Teaching and Learning in the Affective Domain" in *Emerging Perspectives on Teaching, Learning, and Technology*, University of Georgia;
< http://projects.coe.uga.edu/epltt/index.php?title=Teaching_and_Learning_in_Affective_Domain >; and the Virtual Teacher Center's, "Learning Outcomes for the Psychomotor Domain" < http://myvtc.ca/wikis/teaching_learning/learning-outcomes-for-the-psychomotor-domain.aspx >.

V. Curriculum Map

The Curriculum Map is a matrix that represents how courses are aligned with goals and learning outcomes. It is understood that the actual achievement of goals and outcomes is essentially fluid and not limited to specific moments within the curriculum. Yet, when goals and outcomes are implemented through systematic curricular planning, they can be mapped according to the courses in which they are most explicitly emphasized. The alignment between learning outcomes and the curriculum, and by extension the course content, is a critical element of the assessment plan. This is because we cannot expect our students to achieve the learning outcomes we have established if we do not provide respective learning opportunities. The curriculum map ensures that every learning outcome has a corresponding learning opportunity. It also provides the program a better understanding of what is being taught, and serves as a tool to help make adjustments to the curriculum.

The simplest way to represent the complex relationship between outcomes and courses is to create a table showing which courses highlight which outcomes. Variables within the table are also used to show the level at which the outcome is expected to be achieved. Each program can design a table that they determine most useful for this purpose, but the information provided should be clear enough so that it can be easily understood by non-program colleagues. In the example table below, gradations of the same color have been used to designate 3 levels of achievement: introductory, developing, and mastery. The example table shows that outcomes 1.1, 2.1 and 3.1 are introduced in OXY 101. Outcomes 1.2, 1.3, 2.1, and 3.2 are introduced in OXY 105, and outcomes 1.1 and 3.1 are further developed. Outcomes 1.1 and 3.1 continue to be developed in OXY 210, along with 1.3, and outcomes 1.2 and 2.2 are introduced as well. In OXY 340 outcome 3.1 continues to be developed, while mastery is now expected in outcomes 1.1 and 1.3.

Curriculum Map stating course-goal/outcome alignment.
KEY

Introductory	I
Developing	D
Mastery	M

Courses	G/o 1.1	G/o 1.2	G/o 1.3	G/o 2.1	G/o 2.2	G/o 3.1	G/o 3.2
OXY 101	I			I		I	
OXY 105	D	I	I	I		D	I
OXY 210	D	I	D		I	D	I
OXY 340	M		M			D	

EXAMPLE: from the Economics program.

Course/Program Component	Outcome 1.1	Outcome 1.2
Econ 101 – Principles I	I	I
Econ 102 – Principles II	I	I
Econ 250 – Intermediate Micro	D	D
Econ 251 – Intermediate Macro	D	D
Econ 272 – Econometrics	D	D
Econ 3xx – Electives	D	-
Econ 495 – Senior Seminar (comps requirement)	M	M
MFT (comps requirement)	M	M

V. Implementation

Implementation of the Program Assessment Plan is the responsibility of all faculty and staff associated with the program, with the current director or department chair managing its development and maintenance. Consultation can take place among the faculty body as appropriate, and programs can seek assistance from the Institutional Research, Assessment & Planning staff in developing any of the plan's elements. The implementation process will differ from program to program, yet each of the following components should be addressed:

▪ **Assessment Tools, Focus, and Methods**

Describe the tools that will be used (rubrics, e-portfolios, pre/post tests, analysis of syllabi, analysis of assignments or exams, etc.), the focus of the assessments (student learning outcomes, program goals, teaching effectiveness, relevance of course content, course/objective alignment, etc.), and the methods that will be used for evaluation (will more than one faculty member participate in the evaluation, will an outside faculty member be consulted, etc.)

▪ **Assessment Schedule**

Develop a schedule for the interim years between Program Reviews that states which outcomes will be assessed and evaluated in which year. Any attempt to assess every outcome, every year, is likely to be unsustainable, so a phased approach is recommended

▪ **Collaboration**

Describe how assessment results will be discussed with program faculty, staff, and students to determine if action is required. Summaries of the evaluations and any actions taken should be presented in the annual Program Assessment Report, and unresolved issues should be revisited in future reports, as well as in Program Review

- **Data Management**

  Describe the system for managing the assessment data on a central computer, or shared network, and provide documentation on how to access the data for future department chairs or directors

- **Roles and Responsibilities**

  Provide an assignment chart that accounts for each component above (i.e., who will manage the data, who will evaluate which outcomes, who will call the meetings to review the evaluations, etc.). If necessary, position descriptions should be updated to included assessment responsibilities.

Our primary method of assessing student learning is through studies of the work students produce. Indirect assessments, such as surveys and interviews, can be extremely informative, but their data is more suitably used to supplement the data generated from direct learning assessments. The most efficient and effective way to design a direct learning assessment is to assess the assignments and tests that are based on your program's learning outcomes. As W. B. Carnochan pointed out in an extensive historical analysis of liberal arts curriculum reforms, curricula are comprised of a wide range of cross purposes that must be prioritized. "Of these intertwining purposes", he wrote, "which are principally intended, which subordinate? And what means are addressed to which ends? Furthermore, how do we know when ends, however defined, have been met?"[5] The sentiment of these questions has long been a powerful motivation for assessment. To implement a purposeful curriculum we must begin with what we want our students to learn. We must then develop course content, assignments and tests based on this, and then check in periodically to ensure that student learning is actually being achieved at the level we expect. The sections that follow explain how to do this type of direct learning assessment using analytic rubrics and test blueprinting.

Analytic Rubrics

Rubrics are assessment tools that can be applied to essentially any student work or behavior. Rubrics can be used to assess not only student products like assignments, term papers, lab reports, exams, art exhibitions, musical performances, oral presentations, and so on, but also the knowledge, skills, and abilities that support these efforts like use of vocabulary, writing effective arguments, collecting and analyzing data, speaking a foreign language, etc. The primary value in using a rubric is that they provide a way to assess complex behaviors that may occur along a continuum of development.[6] In addition, when distributed before the assessment, rubrics help to clarify the expectations for students, and can serve to keep the scoring by the instructor objective and equitable. Rubrics also have the added benefit of being serviceable for both grading and assessment, and in fact both functions can be accomplished simultaneously. Grading with rubrics provides specific criteria for how each grade was determined, which can be beneficial for students in the form of feedback, and instructors in the form of documentation.

There are two types of rubrics that differ based on how they are scored: holistic, and analytic. Although both types of rubrics differentiate levels of achievement along a scale, holistic rubrics produce a single score while analytic rubrics produce scores for separate criteria. In this sense,

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[5] W.B. Carnochan, *The Battleground of the Curriculum: Liberal Education and American Experience*, Stanford: Standford University Press, 1993, 117.

[6] Mary Allen, *Assessing Academic Programs in Higher Education*, Boston: Anker Publishing, 2004, 138.

holistic rubrics are very much like traditional grading, although perhaps with a more disciplined approach. The strength of analytic rubrics is in their ability to provide a deeper focus. By isolating specific criteria and producing a score for each one, analytic rubrics provide what is referred to as a criterion-referenced score. Students can see from their results not just how they performed overall, but how they performed on each criterion. And instructors can quickly summarize how all students did on a specific criterion as well. A holistic score or traditional grade, in contrast, is norm-referenced; it shows how the student performed only compared to other students.

As with any assessment activity, in order to generate meaningful data it is necessary to assess the specific learning outcomes we have set out for our students. Accordingly, when designing an assessment using an analytic rubric, the rubric itself must be based on the outcome in question. The first step is to select a learning outcome for your assessment. Next, analyze the outcome in distinct criteria. There is no technical limit to the number of criteria, but in practice, assessment becomes increasingly difficult beyond 4-5. There is also no minimum requirement, so a rubric can be developed with as little as even one criterion. A rubric for oral presentations, for example, might be analyzed into three criteria: "organization and clarity", "quality of content", and "presentation style", or an instructor may decide that the only criterion s/he is interested in is "quality of content". In most cases multiple criteria are desirable, yet such a simplification may be appropriate based on the goals of the assessment project. Even though a single criterion ostensibly defeats the purpose of using an analytic rubric, the process of developing analytic rubrics is helpful in making the decisions of what is important to assess, and simplified rubrics can always be built upon later.

The next step is to determine the scoring categories. Some possible labels include:
- Below Expectations | Meets Expectations | Exceeds Expectations
- Emerging | Developing | Adequate | Advanced
- Untrained | Beginner | Proficient | Expert

Each category is represented by a numerical value in the analysis, so that the "untrained"-"expert" scale might be represented from 1-4. Whole numbers are typically all that is needed, yet sometimes .5 scores may help to make the scoring easier. Weighting the criteria is a possibility, but since we are assessing the criteria in isolation from one another there is no need. Once you have your criteria and your scoring categories, you are now ready to complete the rubric with text that explains what will demonstrate each level of achievement. The example below clearly shows what evidence qualifies for each score.

Oral Presentation	Unacceptable	Needs Improvement	Developing	Exceptional
Quality of Content	❑ Research faulty, ideas not original and not relevant to the scholarship of the discipline	❑ Original ideas, but research is faulty and not related to the scholarship of discipline	❑ Sound research that contributes to the scholarship of the discipline, but ideas do not appear very original	❑Original ideas result from sound research that contributes to the scholarship of the discipline
Organization & Clarity	❑Process and results not presented clearly, examples seem irrelevant and conclusion is not clear.	❑Research process is unclear, results are described, but examples are lacking, and conclusion is reasonable.	❑Research process and results are described with good examples, but conclusion is not clear.	❑Research process is clear, results are summarized with concrete, relevant examples & conclusion is clear and concise.
Visual Effectiveness	❑Visual materials do not seem to relate to the research and are confusing; student cannot answer questions or discuss the research	❑Visual materials are confusing and not supported by graphics; student can review the research, but not answer specific questions.	❑Visual materials are organized, but fonts, colors and graphics do not support clarity; student can answer questions.	❑Visual materials are organized, fonts, colors, graphics are used judiciously, student can readily answer questions and discuss the research.
Comments:				

The fastest way to populate the different levels in each criterion is to begin with the highest possible score; in this case "exceptional". Once you have clearly and succinctly stated what an "exceptional" oral presentation would look like for each criterion, you can move backwards in the scoring by taking successful elements away. In the example above content is judged "developing" when a student makes use of sound research, and "exceptional" when that sound research leads to original ideas. Notice in this rubric that the assessor only needs to check the appropriate box to quickly score the presentation. This is a stylistic convention that has proven useful, but is not necessary if the author finds it cumbersome. Note also that there is a comment field on the bottom in case there is anything about the presentation that is not captured in the rubric. Again, the comment field is not essential, but is helpful when scores fall in between the scoring categories, or for notating problems occurring with the rubric itself.

The next step is to create a sample of courses to assess. This can be done by reviewing your program's curriculum map, and selecting courses occurring during the current academic year where the learning outcome(s) you are interested are aligned. For instance, if the Geology department was assessing the third outcome of their first goal (1.3), based on their curriculum map there are several potential courses for the assessment.

[Key: **I** = *Introduced*, **D** = *Developed*, **M** =*Mastered*]

GEOLOGY MAP		Goal 1 Outcomes			Goal 2 Outcomes			Goal 3 Outcomes		
Course #	Course Name	1.1	1.2	**1.3**	2.1	2.2	2.3	3.1	3.1	3.1
105	Intro Geology	I	I	**I**	I		I		I	
205	Planetary			**I**	I					
215	Evol Earth	I	I	**I**	I		I			
225	Intro field	D		**D**	D		I	I		I
235	Global Tect		I	**D**	D	I	I			I
245	Atmos/Oceans		D	**D**	D	D	D		I	D
325	Stx/Adv field	M		**D**	M	I	D	D		D
335	Mineral		D	**I**					I	
342	Geomorph	D	D	**D**	D	D	M		D	D
355	Paleomag	D	D	**D**	D	D	D	D	D	D
365	Paleont	D	D	**D**	D	D	D		D	
385	Hydrogeo		D	**D**	D					
Comps	Comps	M	M	**M**	M	M	M	M	M	M

It is easier to score a given sample if the scoring scheme is consistent, therefore, it is recommended that samples be clustered into different outcome levels (i.e., introductory, developed, or mastered). This can most easily be achieved by assessing upper and lower class levels separately. A more precise method would be to create a sample based on any courses that shared the exact same outcome level. In this example Geology could assess all three levels of outcomes in courses: introductory in courses 105, 205, 215, and 345; developed in courses 225, 235, 245, 325, 342, 355, 365, and 385; and mastered in their senior comps. As the term "sample" implies, not all of the courses need to contribute to the assessment, but considerations should be made to ensure that the sample is representative of the program.

Once the courses have been selected, the next step is to identify an appropriate student product to assess. Again, assessments are ideally preplanned activities. A program-wide assessment that samples multiple courses could make use of what is called a signature assignment. This is an assignment given in multiple courses that is virtually the same. The assignment can very slightly based on the content of the course, but would be identical in its expectations. An oral presentation, a research paper, article summary, annotated bibliography, in-class essay, or major-specific test are good examples of signature assignments that can be used for program assessment. The analytic rubric should also be developed in advance, and distributed to the students along with the assignment expectations. If a signature assignment has not been coordinated, similar assignments might still be assessable by a common rubric, but aggregating the results could be inappropriate. This would be a question for the department as a whole to consider.

To tabulate the results, create a simple table like the one below.

Student	Content	Organization	Style
# 1	3	4	4
# 2	3	2	2
# 3	2	2	2
# 4	4	4	4
# 5	2	2	2

When calculating the score, simple averages of each category are not recommended. This is because the numbers are representative of complex factors and not precise measurements. The difference between a 1 and 2, for example, is not necessarily the same as the difference between a 3 and 4 for any given criterion. The better way to present this type of data is to sum the number of times each score category appears in each criterion, and then report the percentage of scores by criteria—using the descriptive term for the score. In the example below, students received a score of "exceptional" 61 times out of the 81 rubrics completed in the criterion of Content; $61/81 = .753$, or 75.3%. In some cases it might also be informative to state the most common score (mode).

Scores	Content	Organization	Style
4	61	59	58
3	18	12	14
2	2	9	6
1	0	0	0
Total	81	80	78

Levels	Content	Organization	Style
Exceptional	**75.3%**	73.8%	74.4%
Developing	22.2%	15.0%	17.9%
Needs Improvement	2.5%	11.3%	7.7%
Unacceptable	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%

Mode	Content	Organization	Style
	4	4	4

Faculty designing an assessment study using an analytic rubric should keep in mind that rubrics are seldom perfect. They typically require revisions even when the most careful consideration goes into their preparation, and even when they are developed by experts in the field. For this reason, a considerable amount of communication and calls for feedback is required before the assessment takes place. A training session immediately preceding the assessment should be planned as well to orient faculty to the application of the rubric. This training might involve a practice run where the entire assessment team assess the same work, and then discuss any differences in their scoring. In some cases modest revisions of the rubric will be called for as a result. Throughout the process assessors should be reminded that the purpose of the assessment is not to generate numbers. The results are only the starting point for the substantive conversations about student learning that they will stimulate.

Test Blueprinting

Quizzes and exams can also be used for direct learning assessments, providing that the test items are aligned with learning outcomes. Ideally this alignment requires preplanning, but often tests can be aligned retroactively as well. In either case, the alignment between test questions and learning outcomes can be achieved through an exercise known as test blueprinting.[7] The primary benefit of test blueprinting is that it makes direct learning assessments quick and easy. If you have already documented that a mid-term exam addresses your program's learning outcomes 1.1, 1.2, and 1.3, for example, when it comes time to collect data on how well students are achieving these outcomes you only need to extract the answers to those questions. A sample report of such an assessment is below.

Course: OXY 205
Semester: Fall 2010
Source: Mid-Term Exam

Learning Outcome	Test Items	Average Correct
1.1: Student will understand and apply disciplinary-specific terms	1, 6, 9, 13, 25	70.0%
1.2: Student will understand and apply disciplinary-specific concepts	24, 7, 17, 14, 3, 26, 11	89.4%
1.3: Students will apply quantitative reasoning skills to solve problems	2, 4, 5, 8, 10, 12, 15, 16, 18, 19, 20, 21, 22, 23	64.3%

Additional benefits of test blueprinting can include easier question writing. Once the learning outcome (purpose) of the question is clear, question can often be developed faster. Test blueprinting also allows for an effortless analysis of tests to ensure that emphasis is being applied appropriately. It is not unusual to be somewhat surprised to find undue emphasis being placed on particular outcomes when test blueprinting is done on an existing test. Blueprinting a newly developed test, or perhaps a published test that the department is considering, should be a regular practice before implementing it. Obviously, if a test is not well aligned with the program's learning outcomes, regardless of how well the students perform the results will not be very meaningful. Again, the most important reason to align your test items with your program's learning outcomes is ensure that the test is focusing on the specific learning that you intend your students to achieve.

If you decide to design a direct learning assessment based on test items from an existing test, the first step is to read through the test with the learning outcome you are assessing in mind. Circle the test items that you believe demonstrate achievement of this outcome. If you are only assessing your course you may be content with your own judgments, but if you are assessing the program it is advisable to have one or more other faculty in your department verify that you have chosen the right items.

Next, you will need to transfer the test items into a table to help organize your data collection. There are multiple ways that this can be achieved. The example below is one possibility.

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[7] Linda Suskie, *Assessing Student Learning: A Common Sense Guide*, second edition, San Francisco: Jossey-Bass, 2009, 167.

Outcome 1.1	Item # 1	Item # 6	Item # 9	Item # 13	Item # 25
Student # 1	Correct	Correct	Correct	Incorrect	Correct
Student # 2	**Correct**	**Correct**	**Correct**	**Correct**	**Correct**
Student # 3	Incorrect	Correct	Correct	Incorrect	Incorrect
Student # 4	Correct	Correct	Correct	Incorrect	Incorrect
Percent Correct	*75%*	*100%*	*100%*	*25%*	*50%*

If doing this in Excel, SPSS, or other statistical software you can create a pivot table that provides the percent correct, or you can simply calculate the percentage of correct answers for each item with a calculator. The example data above show that on average 70% of all items for this learning outcome were answered correctly. It can also be seen that only 25% of the students (in this case 1 student) answered all of the items correctly. The question for the faculty member using this test, and for the program as a whole, is whether 70% is good enough. If not, further exploration may be in order. For instance, would a change in the course material make a difference? Do some students require increased academic support? In this example one might also wish to specifically explore why performance was so poor on question number 13. Was this question appropriate for the level of students? Was the material covered adequately in class? Did student have enough opportunities to practice it? All of these questions can be generated from even a small data set like the example above. A larger data set coming from several courses to provide an assessment at the program level would stimulate even a richer discussion. And the report might be further enriched if the data are separated so that comparisons can be made by gender, race/ethnicity, etc.

ANNUAL ASSESSMENT REPORT GUIDELINES

The purpose of the Assessment Report is to document the findings of assessments undertaken by academic programs to study their current curriculum and pedagogy in the interim years within the program review cycle. Findings will be used to make academic planning decisions, and to enhance the program's faculty, staff, and student understanding of its essential mission and values.

Reporting Process

The Assessment Report should be done on an annual basis and submitted to the Dean's office by June 15th. The report is a concise 1-3 page document (appendices as needed) focusing on an assessment study undertaken during the academic year. The learning goals and outcomes that are assessed, the criterion for success, and the evaluation methods used should be based on the program's approved Assessment Plan. Summaries of successive years of Assessment Reports should then be compiled to generate the assessment section of the self study for Program Review. And finally, the findings presented in the Assessment Report should be discussed with program faculty, staff, and students (if appropriate) to determine if action is required. Actions taken should be included in the follow-up reports, and the Program Review self study.

Elements of the Report

I. Heading
State the program name, current director or department chair, all other relevant authors or contributors, and the date of completion. In addition, list any specific goals and learning outcomes that were assessed, and the courses in which the assessments took place.

II. Summary Findings
Present an executive summary of the findings. Present only the most relevant information, and use graphs and tables as appropriate. Comprehensive data can be included as an appendix. Be sure to state whether the findings were anticipated or surprising, and more importantly, whether they were considered good enough for what your department expects from our students. Conclusions about causal relationships do not need to be made, but insight regarding potential causes might be discussed.

III. Methodology
Describe the tools that were used (rubrics, e-portfolios, pre/post tests, course evaluations, analysis of assignments or exams, etc.), the focus of the assessments (student learning outcomes, program goals, teaching effectiveness, relevance of course content, course/objective alignment, etc.), and the methods that were used for evaluation (did more than one faculty member participate in the evaluation, was an outside faculty member consulted, etc.).
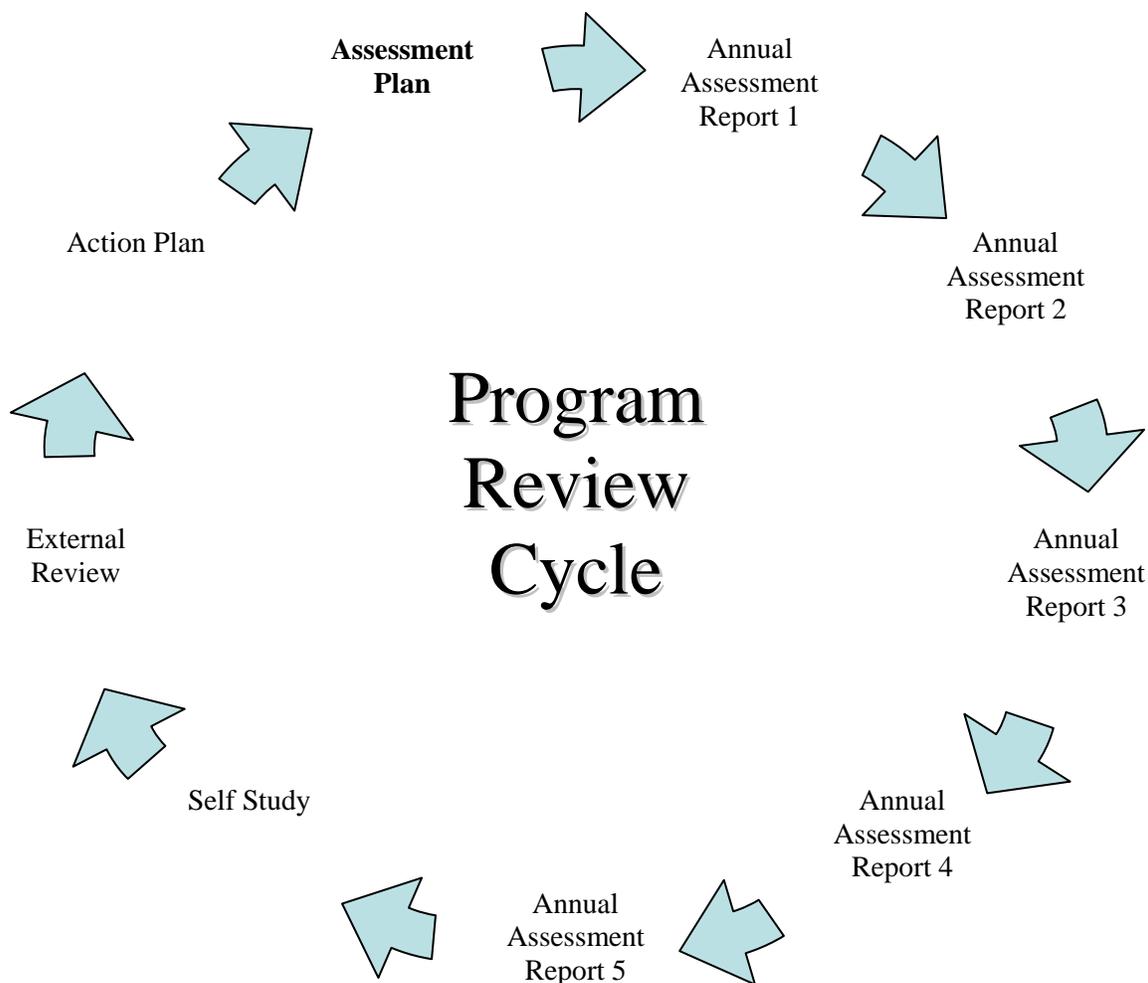
IV. Use of the Findings
Describe how the assessment results were discussed with program faculty, staff, and students. Explain any actions taken as a result of the assessments (e.g., changes to: course content, overall curriculum, the departmental assessment plan, mission statement, etc.). If there are unresolved issues, explain how the program will follow up, and provide a realistic timeframe to do so. Finally, if appropriate, explain any insight the assessment results might have for other areas of the college.

V. Appendix
Attach any worksheets, survey data, graphs, tables, or raw data (if needed) that were used in the final analysis; specifically, those presented in the *Summary of Findings* section.

PROGRAM REVIEW GUIDELINES

Program Review 7-Year Cycle[8]

Year: **1** | **8** | etc.	- Establish an *Assessment Plan* in the initial year - Revise the *Plan* as needed in successive years, and implement the current *Action Plan* from the prior review cycle
Year: **2-6** | **9-13** | etc.	- Implement the *Assessment Plan* by assessing learning outcomes according to the assessment schedule stated in the plan
Year: **7** | **14** | etc.	- Create a *Self Study* based on data from the *Annual Assessment Reports* - Facilitate an *External Review* by non-Occidental peer subject experts - Receive *Action Plan* based on the *Self Study* and review findings

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[8] See: Occidental College *Program Review Calendar* for the current schedule: http://www.oxy.edu/x6662.xml

Academic Program Review provides an opportunity for faculty, staff, and students to engage in group reflection about the educational effectiveness of our academic programs. Specific attention is given to the program's organizational, pedagogical, and curricular capacity to provide students with a high-quality educational experience, and to the academic results of those experiences. Academic Program Review is also an opportunity for the College's programs to assess their alignment with the cornerstones of the Occidental mission: excellence, equity, community, and service. Potential outcomes of the process include:

- enhanced student learning, scholarship, and creative expression
- increased student satisfaction with the overall program
- development of innovative pedagogical techniques
- improvement of program curriculum
- Increased efficiency in the use of resources, and the identification of needed resources
- Enhanced departmental and inter-departmental communications
- Infusion of new ideas from internal and external colleagues
- Review and possible revision of program mission, goals, and learning outcomes

Program Review Process

Academic Program Review is to be understood as a recurring process and not an intermittent event. Each academic program should have an approved Assessment Plan in place prior to entering into the review process. Programs are scheduled for formal review on a seven-year cycle, with the annual Program Assessment Reports serving as small-scale reviews during the interim years. The review process includes five primary elements:

1) *Program Assessment Plan*: a foundational planning document that states the program's mission, goals, and learning outcomes, as well as the method for achieving them. The plan is used as the basis for learning assessments documented in annual Program Assessment Reports

2) *Self-Study*: a thorough evaluation of the program's current state (outlined below) based on institutional and program data

3) *External Review Rubric*: an optional rubric developed by the college that scores a program on a specific set of criteria. The rubric is completed by one or more non-Occidental colleagues from similar programs and institutions based on review of the program's *Self Stud*y, a site visit to the program on campus, and consultation with faculty and students

4) *Summary of Findings*: a 3-5 page narrative report written by one or more non-Occidental colleagues from similar programs and institutions based on review of the program's *Self Stud*y, a site visit to the program on campus, consultation with faculty and students, and scores from the *External Review Rubric*

5) *Action Plan*: a documented plan written by the Dean of the College in consultation with members of the program that outlines the focal points to be addressed through continued self-analysis during the interim years of the program review cycle, and sets a timeline for implementing changes and review.

Roles and Responsibilities

Academic Program Review is the responsibility of all faculty and staff associated with an academic program. In addition, student involvement in the review process is encouraged as much as possible through surveys, focus groups, demonstrations of student achievement, the sharing of assessment results, or other means. The process might also require significant cross-departmental collaboration and communication. Specific roles and responsibilities are as follows:

Department Chair/Program Director
The department chair or program director is responsible for managing the process, communicating and coordinating with all those involved on campus, authoring the *Self Study* together with program personnel, meeting with external consultants, and implementing changes based on review findings as appropriate.

Program Faculty and Staff
Program faculty and staff are responsible for engaging in the process, contributing thoughtful input to the *Self Study*, meeting with external consultants, and implementing changes based on review findings as appropriate.

Dean's Office
The Dean 's office is responsible for developing the official review schedule for all programs, facilitating the selection of external consultants and serving as their primary contact regarding all logistical details of the site visit, reviewing all documents and reports, meeting with external consultants and program personnel, incorporating findings into budget planning, and documenting the next steps and expectations for the program in the *Action Plan*.

Institutional Research, Assessment & Planning (IRAP)
IRAP staff are responsible for supporting the programs under review by meeting with Department Chairs or Program Directors to clarify expectations, providing current longitudinal data, and assisting in the design, implementation, and follow up of assessment studies.

The standard *Data Portfolio* for each program will include the following from the Department Profile report (ARGOS):

Faculty Information	Total faculty in the program (including adjuncts) disaggregated by rank, race/ethnicity, and gender
Degrees Awarded	Degrees awarded disaggregated by race/ethnicity and
Accessibility of Faculty	Number of advisees for each regular faculty member
Average Class Size	Average class size by 100, 200, 300, and 400 level courses, number of courses with under 10 enrolled
Course-Taking Patterns	Course-Taking Patterns in the major by race/ethnicity and gender

IRAP will also act as a resource as needed for assessment and analysis, and by developing surveys directed to current majors, alums, employers, etc. Please note that if assessment services provided by IRAP are intended to be included in the *Self Study*, programs should request the

assistance before, or at the beginning, of the semester in which the study is due. Potential assessment services include:

Assessment Plans	Assistance in developing or revision of a program's current mission, goals, learning outcomes, curriculum alignment, and the implementation of assessment methods.
Learning Outcomes Assessment	Assistance in developing outcomes-based rubrics, portfolios, assignments, tests, etc.
Qualitative Research	Assistance in developing instruments and procedures for the collection of qualitative data from surveys, interviews, focus groups, etc.
Syllabi Analysis	Assistance in compiling and analyzing syllabi to ensure course alignment with the program's stated goals and learning outcomes.
Assessment Analysis and Reporting	Assistance in summarizing findings for final reports, and in compiling data from multiple reports to summarizes overall or longitudinal findings

External Consultants

External consultants serving as program evaluators are responsible for reviewing the program's Self Study; meeting with relevant faculty, students, staff, and administrators on site; and providing a written Summary of Findings to the Dean of the College within one month of their visit. Typically 2-3 consultants will visit campus for 1-2 days. Departments under review are responsible for submitting a list of 5-6 possible names to the dean, but in all cases the dean will make the final selection. Consultants will be provided with the following information:

- *Self Study*, including:
  - Program Assessment Plan
  - Program Data Portfolio
  - Current curriculum-vitae for all department members
  - Program brochures
- *Occidental College Assessment Handbook*
- *External Report Rubric*
- *Occidental College Catalog*

The *Summary of Findings* is a 3-5 page report that can be designed to best fit the needs of the external consultants. Findings should be based on evidence, however, that are collected in response to the primary focal points of the *Self Study*: goal achievement, curriculum relevance, student experience, and program resources. The External Report Rubric provided is based on these same criteria to assist consultants in capturing all of this information. Use of the rubric is optional, but consultants might find it useful for organizing and reporting the information collected. The rubric can be completed during or after the site visit, and the results can be incorporated in the *Summary of Findings* or attached as an addendum. Any differences among scoring that arise between consultants should be reported and explained.

Self Study **Guidelines**

The *Self Study* is expected to be a candid assessment of the program's current state. The primary audiences are program members, the Dean of the College, the designated Associate Dean, and the external consultants. The *Self Study* can be organized and formatted at the discretion of the Department Chair or Program Director, however, the criteria below should be included in order to ensure that the study is systematic and thorough. Responses to the criteria should be limited to 10-15 pages, with supporting documentation included as appendices.

I. Program Overview
Provide a brief description of the program, consider including: significant historical and/or recent developments, size and scope, course load (both majors and non-majors), student characteristics (enrollment counts, number of current majors, gender and ethnicity, grade-point averages, SAT scores, etc.), faculty and staff characteristics (e.g., degrees, years of professional experience, publications, unique skills, involvement in campus initiatives, etc.), and evidence for the needs of the department (in support of general education, as a vital component for a liberal arts education, to fill an external need, etc.). In addition, discuss any known issues or areas in which the external reviewers should focus their attention.

II. Goal Achievement
Provide evidence for the achievement of program learning goals, such as: direct learning assessments, demonstrations of student work that shows evidence of achievement, alignments of learning outcomes and course content, survey data that demonstrates student understanding of the program's mission and their perception of whether goals are achieved, etc. If findings show that goals are not being met, discuss preliminary recommendations for the most critical areas to address.

III. Curriculum Relevance
Provide an assessment of the current curriculum, considering its relevance with practice in the profession or field of study, whether its course content is up to date, the appropriateness of the units offered for the amount of work required, its relationship with peer programs at other institutions, etc. Specific attention might also be paid here to how the senior comprehensive or major field test requirement helps students to integrate information, concepts, and skills in order to demonstrate the depth and breadth of their knowledge of the field.

IV. Student Experience
Provide evidence for how the program is meeting student needs, possibly including: participation in community-based learning, participation in co-curricular activities, case studies of student success, impact of the program (based on student placement in graduate programs, employment in professional positions, post-test results, etc.), honors and fellowships received by students, and so on. Assessment of the student experience should also include student satisfaction with access to faculty, mentoring and advisement services, as well as course content, assignments, teaching methods and effectiveness, etc. Evidence for meeting student needs should include a program-oriented alumni survey based on a template provided by Institutional Research, Assessment & Planning. The program and/or departmental alumni survey will ask alumni to respond to questions about: achievement of program learning outcomes; achievement of institutional learning outcomes; satisfaction with course offerings and student-faculty engagement; satisfaction with program-related student services, equipment, and spaces; and demographic

information such as graduation year, race/ethnicity, gender, current profession, graduate degree(s) pursued, etc. Supporting data can also be collected from course evaluations, as well as published surveys.

V. Program Resources

Provide an assessment of current resources required to support the achievement of the program's stated goals. Potential resources might include library holdings and information resources, physical facilities, support staff, network infrastructure, hardware and software, media equipment, supply budgets, office space, etc. Project future needs for the program over the next 3-5 years considering possible changes within the filed, changes within the student population, potential recruiting issues, impact of technology, etc.

VI. Supporting Documentation

Include as appendices the current curriculum-vitae for all program faculty, syllabi for essential courses, and the program's data portfolio. Other supporting evidence and documentation can be provided as needed.

Review Cycle

Reviews are scheduled in either Fall or Spring. *Self-Study* reports are due in the semester immediately preceding the semester in which the Review is scheduled. For example, if a review is scheduled in Spring 2013, the self *Self-Study* will be due in Fall 2012. Note that *Self-Study reports* must be submitted to the dean before the site review will be scheduled with the external consultants.

External Report Rubric

Criterion	Underdeveloped	Developing	Well Established	Exceptional
Goal Achievement	☐Outcomes are based on knowledge, skills and values, relevant for the discipline	☐Outcomes are based on knowledge, skills and values, relevant for the discipline, and are regularly assessed	☐Outcomes are based on knowledge, skills and values, relevant for the discipline, and are regularly and systematically assessed and reported	☐Outcomes are based on knowledge, skills and values, relevant for the discipline, and regularly and systematically assessed, reported, followed up on, and integrated into departmental planning
Curriculum Review	☐Curriculum is appropriate for its respective degree	☐Curriculum is appropriate for its respective degree, and is designed to facilitate timely completion	☐Curriculum is appropriate for its respective degree, is designed to facilitate timely completion, and/or provides adequate opportunities for students to meet expected outcomes	☐Curriculum is appropriate for its respective degree, is designed to facilitate timely completion, and provides adequate opportunities for students to meet expected outcomes
Student Experience	☐Intellectual engagement and Student-faculty engagement is encouraged	☐Intellectual and student-faculty engagement is encouraged; students are somewhat satisfied with the quality of advising, and disciplinary academic support, resources and technology, internships, research opportunities, etc.	☐Intellectual and student -faculty engagement is encouraged and facilitated; students are satisfied with the quality of advising, and disciplinary academic support, resources and technology, internships, research opportunities, etc.	☐Intellectual and student -faculty engagement is encouraged and facilitated; students are highly satisfied with the quality of advising, and disciplinary academic support, resources and technology, internships, research opportunities, etc.
Resource Planning	☐Program realistically prioritizes needs based on its mission and learning goals	☐Program realistically prioritizes needs based on its mission and learning goals, and adequately and appropriately articulates needs to Dean	☐Program realistically prioritizes needs based on its mission and learning goals, adequately and appropriately articulates needs to Dean, and/or makes efficient and effective use of available resources	☐Program realistically prioritizes needs based on its mission and learning goals, adequately and appropriately articulates needs to Dean, and makes efficient and effective use of available resources

EXAMPLE: Program Review Process

Pre-Review	- Dean's Office notifies existing and incoming Chairs about their upcoming review prior to the academic year in which the review takes place -Chair(s) confirm - Program Review Coordination Team meets in the summer to finalize the program review schedule for the new academic year - Dean's Office posts final schedule on Dean's webpage
Preparing for the Review	- Chair meets with Assessment Director and/or Associate Dean liaison to go over the process - Chair requests *Data Portfolio* from Institutional Research, Assessment & Planning - Chair communicates with program faculty, staff, and students about the upcoming review, explaining the importance of their participation - Chair and program faculty discuss potential external consultants - Chair and program faculty review program mission, goals and learning outcomes, and make revisions as necessary in preparation for the *Self Study*
Developing the *Self Study*	- Chair, program faculty and staff meet to assign roles and responsibilities to develop the *Self Study* - Chair, program faculty and staff collect and analyze assessment, survey, and intuitional data, and begin writing *Self Study* - Chair submits a draft of the *Self Study* to program faculty, staff and students; Assessment Director and/or Associate Dean liaison; and other interested parties for their review and feedback
Preparing for the Site Visit	- Chair submits final copy of the *Self Study* to the Dean's Office - Chair submits list of potential external consultants to the Dean - Dean selects and invites external consultants to campus - Dean's office schedules site visit, makes travel arrangements for external consultants, and works with Chair to finalize the site visit agenda
Site Visit	- Chair, program faculty, staff and students, Associate Dean liaison, Dean, and others meet with external consultants during the site visit - External consultants develop *Summary of Findings* report
Post-Review	- Dean's Office receives *Summary of Findings* from external consultants, and meets with the Chair to review the findings - Chair shares reports with program faculty and staff and collects feedback - Dean, Assessment Director, Chair, and all program faculty and staff meet to discuss findings - Dean and Assessment Director develop a preliminary action plan based on the report's recommendations, and share with Chair - Assessment Director meets with Chair to approve the action plan and finalize with a timeline - Dean incorporates final report into Academic Affairs budget and planning as appropriate
1ˢᵗ Year of the Next Cycle	- Chair implements action plan, and revises program assessment plan as needed - Assessment Director follows up with Chair regarding the status of the action plan

EXAMPLE: Site Visit Agenda

VISITORS SCHEDULE FOR THE OXY STUDIES
DEPARTMENT PROGRAM REVIEW

WEDNESDAY, OCTOBER 9

- External Reviewer #1, External Reviewer #2, and External Reviewer #3 arrive at the airport and are transported to the Westin Pasadena.

THURSDAY, OCTOBER 8

8:00 a.m.	Reviewers picked up at the Westin Pasadena for transport to the College	Pick up at the front curb just outside the Westin Pasadena
8:30 - 9:30	Breakfast meeting with Dean of the College	Johnson Student Center Presidents Dining Room (2nd Fl)
9:30 – 10:30	Meeting with Department Chair	Johnson 404
10:30 – 11:00	Meeting with Campus Tour with Faculty	
11:00 – 11:30	Meeting with Departmental Faculty	Johnson 404
11:30 – 12:00	One-on-One Meeting with Departmental Faculty	Johnson 402
12:00 – 12:30	Break	Visitors Room - Johnson 306
12:30 - 1:30	Lunch meeting with Students Majoring in the Department	Johnson Student Center Salsbury Room (2nd Fl)
1:30 -2:00	One-on-One Meeting with Departmental Faculty	Johnson 403
2:00 – 2:30	One-on-One Meeting with Departmental Faculty	Johnson 405
2:30 – 3:00	Meeting with CORE Program Director	Johnson 110
3:00 – 3:30	One-on-One Meeting with Departmental Faculty	Johnson 402
3:30 – 4:00	Afternoon break	Visitors Room - Johnson 306
4:00 – 4:30	One-on-One Meeting with Departmental Faculty	Johnson 403
4:30 – 5:00	Refreshments with Non-Major Students	Johnson Student Center Presidents Dining Room (2nd Fl)
5:00	Reviewers return to Westin	

6:30pm	Dinner Meeting with Departmental Faculty	Trattoria Tre Venezie 119 W Green St Pasadena CA 91105 (626) 795-4455

FRIDAY, OCTOBER 9

9:00 a.m.	Reviewers picked up at the Westin Pasadena for transport to the College	Pick up at the front curb just outside the Westin Pasadena
9:30 – 10:00	Meeting with Director of International Programs	Weingart 101
10:00 – 10:30	Meeting with Associate Dean	Johnson 109
10:30 – 11:30	Class Visitation, OXY 109	Johnson 309
11:30 – 12:00	Wrap up with Department Chair	Johnson 404
12:00 – 1:00	Lunch with Non-Departmental Faculty	Johnson Student Center Young Room (2nd Fl)
1:00 – 2:00	Visiting Team Preparation for Exit Interview	Visitors Room - Johnson 306
2:00 - 3:00	Exit interview with Dean of the College	3rd floor Coons Admin Building Dean's Office
3:00/3:15	Reviewers are transported to LAX airport.	Pick-up at the Dean's Office for transport to Los Angeles International Airport/LAX

CAMPUS CONTACTS:
Occidental College, 1600 Campus Road, Los Angeles, CA 90041

Dept. Chair
Chair, *Department Name*   Department Services Coordinator
Campus Location   Johnson 303
Phone   Phone: (323) 259-2822,
Cell   or 2822 on campus

                                                 Campus Safety
Academic Services Assistant   Located in Facilities building
Associate Dean of the College Office   (323) 259-2599, or x2599 on campus
Johnson Hall 112
Phone (323) 259-2921, or x2921   Campus Safety **Emergency** only
Fax: (323) 341-4988   calls on campus x2511 or dial "5"