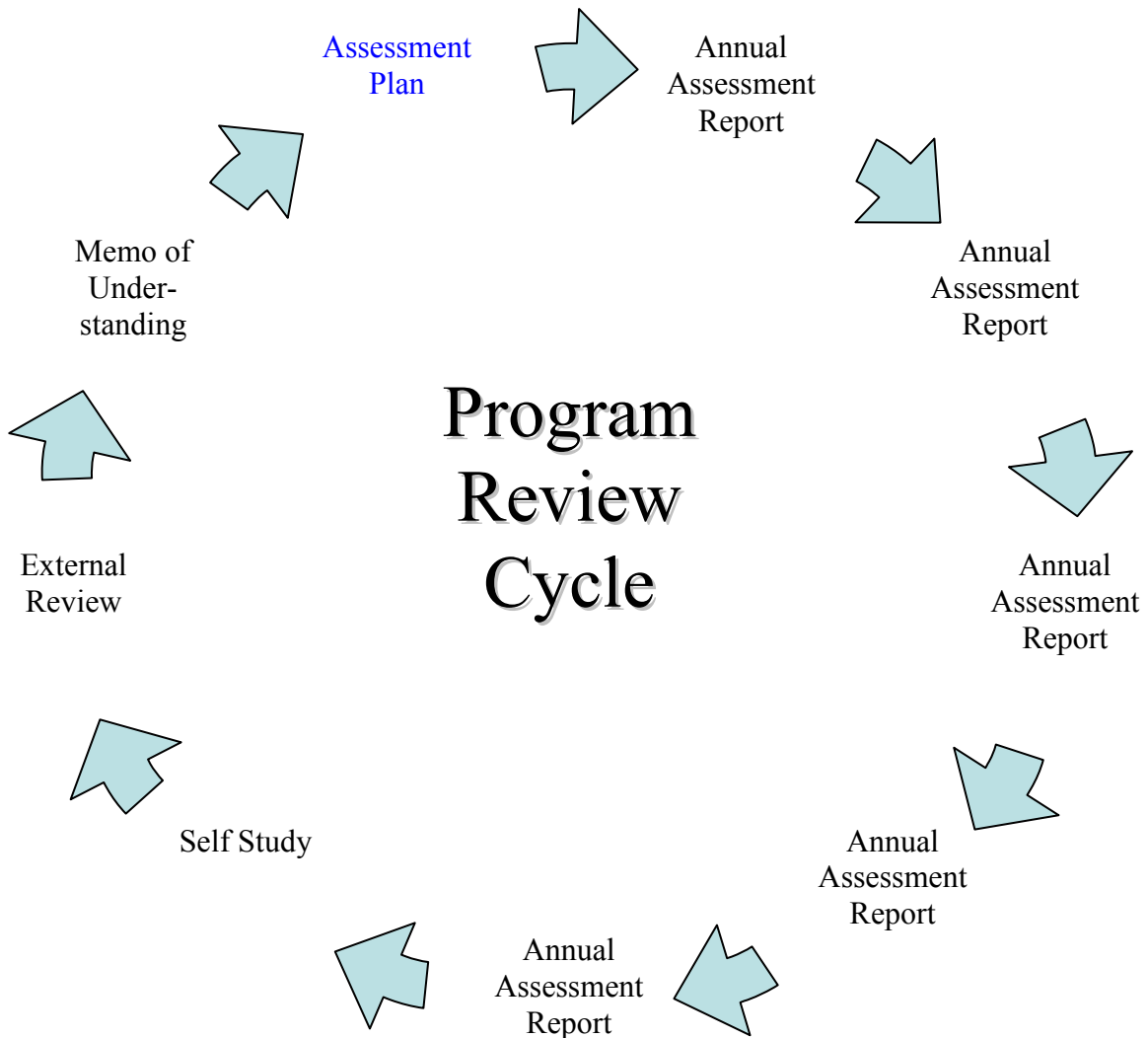


# Occidental College Assessment Guidelines

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**Program Review 7-Year Cycle**

<p><b>Year 1   8   +</b></p>	<ul style="list-style-type: none"> <li>- Establish an <i>Assessment Plan</i> in the initial year</li> <li>- Revise the <i>Plan</i> as needed in successive years, and implement the current <i>Memorandum of Understanding</i> from the prior review cycle</li> </ul>
<p><b>Year 2-6   9-13   +</b></p>	<ul style="list-style-type: none"> <li>- Implement the <i>Assessment Plan</i> by assessing outcomes according to the assessment schedule stated in the plan</li> </ul>
<p><b>Year 7   14   +</b></p>	<ul style="list-style-type: none"> <li>- Create a <i>Self Study</i> based on data from the <i>Annual Assessment Reports</i></li> <li>- Facilitate an <i>External Review</i> by non-Occidental peer consultants</li> <li>- Receive <i>Memorandum of Understanding</i> based on the <i>Self Study</i> and review findings</li> </ul>

## PROGRAM ASSESSMENT PLAN Guidelines

### Purpose of the Plan

The purpose of the Program Assessment Plan is to promote educational effectiveness by facilitating a systematic collection of evidence on student learning that can be used to improve the curriculum and pedagogy within a given program. The 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. 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.

### Guiding Principles

Assessment at Occidental College is guided by the following principles:<sup>1</sup>

1. *Assessment is goal oriented.* Assessment activities should 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 is 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 when appropriate. In addition, results are regularly reviewed and referenced not only in curricular planning, but also in 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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<sup>1</sup> 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.

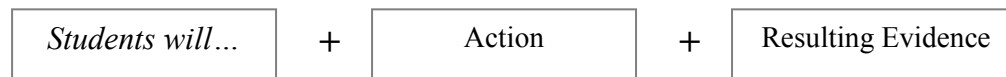
### II. Mission

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, and after, 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:



Actions should be associated with the appropriate learning level or cognitive domain (i.e., Bloom's Taxonomy, or recent extensions of his theory). 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. Resulting Evidence can refer either to tangible products that demonstrate achievement (such as papers, test scores, presentations, performances, portfolios, works of art, musical compositions, lab results, etc.), or to knowledge and skills that support these efforts (such as writing effective arguments, collecting and analyzing data, reading a foreign language, etc.).

For clarity, 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.*

#### IV. Curriculum Map

The Curriculum Map is a matrix that represents how courses are aligned with goals and learning outcomes. It is understood that student achievement of goals and outcomes is essentially fluid, and not limited to specific courses or specific moments within the curriculum. When goals and outcomes are implemented systematically, however, they can be mapped according to the courses in which they are most explicitly emphasized. The simplest way to represent this complex relationship is to create a table showing which courses highlight which outcomes. The variables within the table will show the extent to which the outcome is expected to be achieved.

Each program can design a table that they determine most useful for this purpose. 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. More outcomes are introduced in OXY 105, and outcomes 1.1 and 3.1 are further developed. The same outcomes continue to be developed in OXY 210, along with 1.3, and new outcomes 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.

EXAMPLE: Curriculum Map stating course-goal/outcome alignment

#### **KEY**

<i>Introductory</i>	
<i>Developing</i>	
<i>Mastery</i>	

<b>Courses</b>	<b>G/o 1.1</b>	<b>G/o 1.2</b>	<b>G/o 1.3</b>	<b>G/o 2.1</b>	<b>G/o 2.2</b>	<b>G/o 3.1</b>	<b>G/o 3.2</b>
OXY 101							
OXY 105							
OXY 210							
OXY 340							

#### 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. Consultation can take place among the faculty body as appropriate, and programs can seek assistance from the Institutional Research & Assessment Group staff in developing missions, goals, outcomes, tables, graphs, etc., and in the evaluation of assessment results. 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, 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 will be used for evaluation (will

- more than one faculty member participate in the evaluation, will an outside faculty member be consulted, will syllabi be collected and reviewed, etc.)
- **Assessment Cycle**  
Develop a schedule for the interim years between Program Reviews that states which outcomes will be assessed and evaluated in which year. It is not likely to be sustainable to assess and evaluate every outcome, every year, so a phased approach is recommended
  - **Evaluation Review**  
Describe how assessment and evaluation 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
  - **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 include assessment responsibilities.

## PROGRAM ASSESSMENT REPORT Guidelines

### **Purpose of the Report**

The purpose of the Assessment Report is to document findings of evaluations undertaken by academic programs to assess 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.

### **Process of the Report**

The Assessment Report should be done on an annual basis and submitted to the Vice President for Academic Affairs before the beginning of the Fall semester (typically mid-August). The learning goals and outcomes that are evaluated, 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 can 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. Finally, the findings presented in the Assessment Report should be discussed with program faculty, staff, and students to determine if action is required. Actions taken can be included in the follow-up reports, or 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 evaluated, and the courses in which the evaluations 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. Explain what was learned, and whether this was new knowledge or confirmation of known factors. 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, were syllabi collected and reviewed, etc.).

#### IV. Use of the Findings

Describe how assessment and evaluation results were discussed with program faculty, staff, and students. Explain any actions taken as a result of the evaluations (e.g., changes to course content, overall curriculum, the departmental assessment plan, mission statement, etc.). If there are unresolved issues, explain and how the program will follow up.

#### V. Appendix

Attach any worksheets, survey data, graph or table data, or raw data (if appropriate) that were used in the final evaluations; specifically those presented in the *Summary of Findings*.

## ACADEMIC PROGRAM REVIEW Guidelines

### Purpose of Program Review

The purpose of Academic Program Review is to engage faculty, staff, and students in analysis and reflection on 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 pedagogical techniques for instructors
- 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

### Process of Program Review

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. In this way the Program Assessment Plan, annual Program Assessment Reports, and Academic Program Reviews are closely linked.

The Academic Program Review process includes four 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 evaluations documented in annual Program Assessment Reports
- 2) **Self-Study:** a thorough assessment of the program's current state (outlined below) based on institutional and program data
- 3) **Summary of Findings:** a critical analysis report written by at least two outside colleagues from similar programs and institutions that is based on review of the program's *Self Study*, a site visit to the program on campus, and consultation with faculty and students
- 4) **Memorandum of Understanding:** a documented action plan written by the Dean of the College in consultation with members of the program that outlines the timeline for implementing changes, and focal points to be addressed through continued self-analysis during the interim years of the program review cycle.

## 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 should be encouraged as much as possible through surveys, focus groups, demonstrations of student achievement, or other means. The process also requires significant cross-departmental collaboration and communication. The following work together in the review of each program: current Department Chair or Program Director, Dean of the College, Institutional Research & Assessment Group staff, and external consultants.

### Department Chair/Program Director

The department chair or program director is responsible for managing the process, communicating and coordinating with all those involved, 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 consultant, and implementing changes based on review findings as appropriate.

### Dean of the College

The Dean of the College is responsible for developing the official review schedule for all programs, meeting with Department Chairs or Program Directors to clarify expectations, facilitating the selection of external consultants and the logistical details of their 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 *Memorandum of Understanding*.

### Institutional Research & Assessment Group (IRAG)

IRAG staff are responsible for supporting the programs under review by providing current longitudinal data for use in developing the *Self-Study*.

The standard *Data Portfolio* for each program will include the following:

Faculty Information	1. Regular faculty in the program disaggregated by rank, race/ethnicity, and gender 2. Total faculty in the program (including adjuncts) disaggregated by rank, race/ethnicity, and gender
Degrees Awarded	1. Degrees awarded disaggregated by race/ethnicity and gender (last five years) 2. Comparison of degrees awarded in program as percent of total degrees awarded (last five years)
Accessibility of Faculty	Number of advisees for each regular faculty member (last two years)
Average Class Size	Average class size by 100, 200, 300, and 400 level courses (last two years)

Course-Taking Patterns	Course-Taking Patterns in the major by race/ethnicity and gender (1994-present)
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IRAG will also act as a resource as needed for academic assessments and evaluation, and by developing surveys directed to current majors, alums, employers, etc. Please note that if assessment services provided by IRAG 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., and in tabulating and analyzing results.
Qualitative Research	Assistance in developing instruments and procedures for the collection of qualitative data from surveys, interviews, focus groups, etc., and in tabulating and analyzing results.
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 summarize overall or longitudinal findings

### External Consultants

The external consultants are responsible for reviewing all program documents, meeting with faculty, students, and staff in the department on site, and providing a written *Summary of Findings* to the Dean of the College and the department within a week of their visit. Consultants will be provided with the following information:

- *Self Study*
- *Program Assessment Plan*
- *Data Portfolio*
- *Guide for Program Review*
- *Occidental College Catalog*
- Current curriculum-vitae and resumes for all department members
- Program brochures

The *Summary of Findings* report format can be designed to best fit the needs of the external consultants and the members of the program under review. Findings should be based on evidence, however, collected in response to the primary focal points of the *Self Study*: goal achievement, curriculum relevance, student experience, and program resources.

### ***Self Study Guide***

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 following criteria should be included in order to ensure that the study is systematic and thorough. Responses to the criteria should be limited to 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 goals, consider including: demonstration of the achievement of student learning outcomes, alignment of learning outcomes and course content, student understanding of the program's mission and perception of whether goals are achieved, alignment and support of the institution's mission, 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, consider including: relevance of curriculum with practice in the profession or field of study, currency of curriculum and course content, relationship of the curriculum with peer programs at other institutions, future directions, etc. Specific attention might also be paid here to how the senior project or comprehensive 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, consider including: case studies of student success, retention rate, impact of the program (based on student placement in graduate programs, employment in professional positions, post-test outcome results such as SAT and GRE scores, etc.), internal and external honors received by students, participation in community-based learning, participation in co-curricular activities, etc. Assessment of the student experience might also include student satisfaction with access to faculty, mentoring and advisement services, as well as course content, assignments, teaching methods and effectiveness, etc.

### V. Program Resources

Provide an assessment of current resources with respect to the achievement of the program's stated goals, consider including: 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 field, changes within the student population, potential recruiting issues, impact of technology, etc.

## Review Cycle

Reviews are scheduled in either Fall or Spring. *Self-Study* reports are due before the end of the semester in which the Review is scheduled, and site visits from external consultants take place in the following semester (see example below).

### EXAMPLE: Timeline for Spring 2012 Review

- |                         |  |
|-------------------------|--|
| <b>August, 2011-</b>    | <ul style="list-style-type: none"> <li>- Director/Chair (D/C) meets with Assoc. Dean to go over the process</li> <li>- D/C meets with Assessment Director to discuss method and approach</li> <li>- D/C requests <i>Data Portfolio</i> from Institutional Research &amp; Assessment</li> <li>- D/C communicates with program faculty, staff, and students about the process, explaining the importance for participation</li> <li>- D/C and Assoc Dean identify potential external consultants</li> <li>- D/C reviews and revises <i>Program Assessment Plan</i> as necessary</li> </ul> |
| <b>September, 2011-</b> | <ul style="list-style-type: none"> <li>- D/C submits final list of external consultants to the Dean of the College</li> <li>- Dean of the College invites external consultants to campus</li> </ul>  |
| <b>Sept-Oct, 2011-</b>  | <ul style="list-style-type: none"> <li>- D/C, program faculty and staff collect data through meetings, interviews, focus groups, and surveys</li> <li>- D/C, program faculty and staff analyze data and develop a draft <i>Self Study</i></li> </ul>   |
| <b>November, 2011-</b>  | <ul style="list-style-type: none"> <li>- D/C submit draft <i>Self Study</i> to program faculty, staff and students; Associate Dean; Institutional Research &amp; Assessment; and other interested parties for review and feedback</li> </ul>   |
| <b>December, 2011-</b>  | <ul style="list-style-type: none"> <li>- D/C submits final <i>Self Study</i> to Dean of the College</li> <li>- Dean of the College incorporates preliminary findings into budget projections</li> </ul>  |
| <b>February, 2012-</b>  | <ul style="list-style-type: none"> <li>- D/C, program faculty, staff and students meet with external consultants</li> <li>- External consultants develop <i>Summary of Findings</i></li> </ul>   |
| <b>March, 2012-</b>     | <ul style="list-style-type: none"> <li>- Receive <i>Summary of Findings</i> from external consultants</li> <li>- Meet with the Dean of the College to go over <i>Memorandum of Understanding</i>, and to discuss preliminary budget planning</li> <li>- Meet with program faculty and staff to discuss implementation of the memorandum</li> </ul>   |

## OUTCOME-BASED RUBRIC Guidelines

### Purpose of Using an Outcome-Based Rubric

An educational assessment rubric is an evaluation tool that can be used to quantify student demonstrations of learning; such as lab experiments, term papers, exams, art exhibitions, musical performances, oral presentations, etc. Like standard grading, rubrics provide subjective assessments that are based on multiple dimensions of academic expectations. The value of using a rubric is that it documents the assessment of each dimension. This documentation provides greater clarity when analyzing how final grades are calculated. Rubrics can also be used to improve the reliability of assessments when multiple assessors are evaluating the same work.

Rubrics can be used not only to evaluate student work, but also to evaluate student learning outcomes, and in turn, the overall goals of the program. This is the premise behind outcomes-based rubrics. For the purposes of a program's annual assessment report or program review self study, rubrics can be created based on the program's learning outcomes. A program's learning outcomes, in this case, become the criterion for success of a given assignment, and the student's ability to achieve success becomes an indicator of the alignment between the course content and the program's goals. In other words, the student's demonstration of learning represents a demonstration of program effectiveness. This is equally true of grades, however, using an outcome-based rubric reveals a direct link between student learning and program goal achievement.

### How to Create and Apply an Outcome-Based Rubric

In order to create an outcome-based rubric considerations will need to be made regarding what will be assessed, who will be assessed, who will do the assessment, how the assessment will be scored, and how the assessment will be tabulated for final analysis. The steps below will address each of these components according to preferred practice. It is understood that the resources of a given program might impact its ability to adhere the recommended practice, but this should not deter a program from using this approach. Once the concept of an outcome-based rubric is understood, the application can be as modest or as elaborate as necessary.

1. Identify a program goal to be assessed, then select a specific outcome.

2. Analyze the outcome into distinct dimensions.

Note that if the outcome concisely articulates how learning is to be demonstrated, analysis into dimensions may not be necessary or even possible. In most cases, however, 2-3 dimensions can be identified (see example in **Step 4** below).

3. Determine the scoring categories.

Scoring can be as simple as 1-3; (1) below expectations, (2) meets expectations, (3) exceeds expectations. If greater detail is required, categories could be increased in number, or

each category could also have a range of numbers; for example, (1-3) below expectations, (4-6) meets expectations, (7-9) exceeds expectations; or alternatively, (.5-1.5) below expectations, (2-3) meets expectations, (3.5-4.5) exceeds expectations, and so on.

Weighting is sometimes used when assessing student work, but it is not recommended for assessing program goals. With student work, it is a good practice to highlight certain outcome dimensions, for example by multiplying the score by two, in order to match the goal of a specific assignment. In the assessment of program goals the interest for each dimension is equal, and weighting would skew the overall results.

4. Create a table that places the outcome dimensions on one axis, and the scoring categories on the other.

The example below is for a writing outcome that has been broken down into three dimensions.

**Outcome 1.2:** *Students will write a persuasive thesis by analyzing and selecting high quality evidence gleaned from appropriate sources*

Student #12	Below Expectations (1-2)	Meets Expectations (3-4)	Exceeds Expectations (5-6)
Persuasive Argument	-	4	-
Quality of Sources	-	3	-
Original Synthesis of Ideas	-	-	5

5. Identify a sample of courses occurring during the assessment period.

Since there might be different expectations from an outcome at different class levels, up[per and lower division courses can be assessed separately. This will make scoring easier (see **Step 9** below). In other words, first and second-year courses could constitute one assessment, and third and fourth-year courses could constitute another.

Ideally these courses should be selected at random. Random selection can be accomplished by first making a list of all the possible courses being taught, and then assigning each course a number. Excel can be used to generate random numbers, or the numbers could simply be written on small pieces of paper and then drawn from a hat. The formula for generating random numbers in Excel is  $=\text{rand()}*(a-b)$ . For example, if 14 courses are being taught, the formula would be  $=\text{rand()}*(14-1)$ . After obtaining the first random number, use F9 to obtain the following numbers.

6. Identify an assignment occurring in one of the courses selected.

This need not be at random, and in fact, it may require some careful judgment regarding which is the best assignment to assess. The criterion for success of the assignment (i.e., the learning outcome and its measureable dimensions) should be clearly stated for the assignment, but students should not be made aware that they will be participating in an assessment of program goals.

7. Identify a random sample of student work based on the courses and assignments chosen.

In the process of selecting the students, names should be replaced by unique identifiers. This can be done by simply replacing names with “Student 1”, “Student 2”, etc. Since the assessment is focused on program goals and not student work, a particular student’s performance in class should not be considered when scoring the work.

8. Identify as many assessors as possible.

This need not be at random, but if possible, the assessors should not assess work from students in their own classes. As stated in **Step 7**, the objective is to separate the assessment of goals from the context of a specific student or a specific class. In addition, keep in mind that the reliability of the results will increase with the use of more assessors.

9. Apply the rubric to each student work in the sample.

The assessors’ scoring should be consistent with the program’s curriculum map, as stated in the program’s assessment plan. For instance, if it was determined that an outcome will only be introduced in a particular class, and not mastered, the scoring should take this into account.

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. As stated in **Step 5** above, 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 courses that shared the exact same outcome level. For instance, if the Geology department was assessing their Goal 1’s third outcome (**1.3**), there are three potential assessments. The first would assess courses **105, 205, 215, and 345**; the second would assess **225, 235, 245, 325, 342, 355, 365, and 385**; and the third would assess senior **comps**.

[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	<b>Intro Geology</b>	I	I	<b>I</b>	I		I		I	
205	<b>Planetary</b>			<b>I</b>	I					
215	<b>Evol Earth</b>	I	I	<b>I</b>	I		I			
225	<b>Intro field</b>	D		<b>D</b>	D		I	I		I
235	<b>Global Tect</b>		I	<b>D</b>	D	I	I			I
245	<b>Atmos/Oceans</b>		D	<b>D</b>	D	D	D		I	D
255	Nat Sci GIS		D		D			D	I	
325	<b>Stx/Adv field</b>	M		<b>D</b>	M	I	D	D		D
335	<b>Mineral</b>		D	<b>I</b>					I	
342	<b>Geomorph</b>	D	D	<b>D</b>	D	D	M		D	D
345	Petrology	D	M	<b>D</b>	D			I		
355	<b>Paleomag</b>	D	D	<b>D</b>	D	D	D	D	D	D
365	<b>Paleont</b>	D	D	<b>D</b>	D	D	D		D	
385	<b>Hydrogeo</b>		D	<b>D</b>	D					
490	Sr. Seminar				D	D	M	D	D	D
Comps	<b>Comps</b>	M	M	<b>M</b>	M	M	M	M	M	M

**11. Total the scores.**

Calculate the totals of the individual student scores, then the totals all student scores for each dimension, and then the overall grand total.

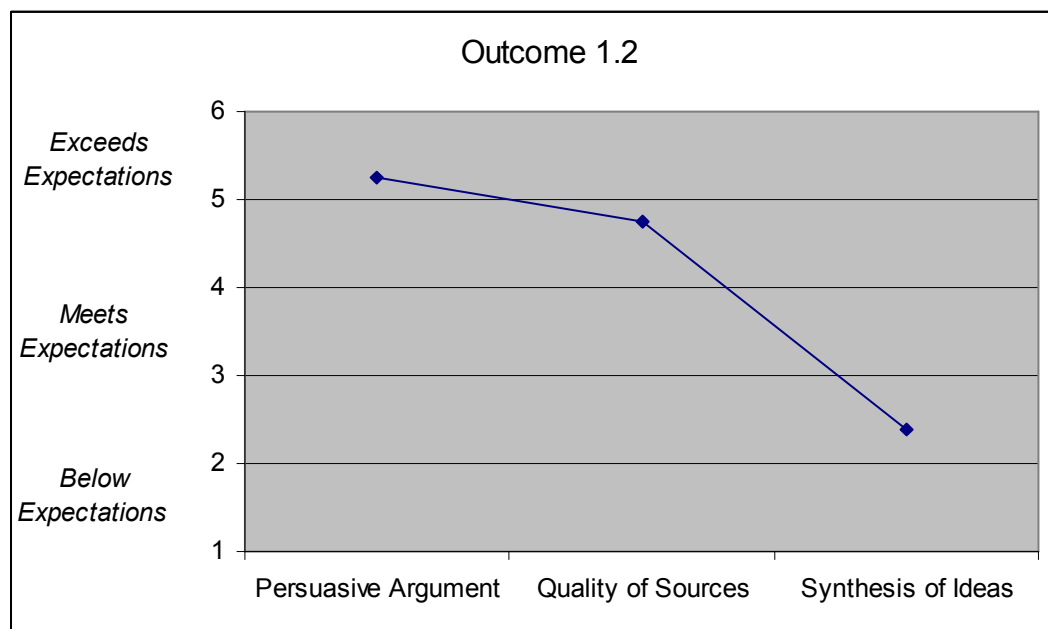
**12. Calculate the average of all scores for each dimension.**

The mock example below shows the results from a sample of twenty-three students selected randomly from five courses, and assessed by two faculty members.

<b>23 Students / 5 Courses</b>	Totals	Averages
Persuasive Argument	121	5.26
Quality of Sources	109	4.74
Original Synthesis of Ideas	55	2.39
<b>Grand Totals</b>	<b>285</b>	<b>12.39</b>

**13. Report the results.**

The averages can be graphed to provide a quick visual of the results.



Other types of analysis could include:

- calculating the percentages for each score category (e.g., the percentage of students who exceeded expectations)
- determining the mode (i.e., the most common score) in each outcome dimension
- Analyzing any gaps between multiple assessors to determine much de the scores of the different assessors vary

- assessment could also be repeated multiple times within an assessment period (using the same students, but different assignments) and the results could be averaged, or compared

Finally, in order to explain how the results were obtained, remember to include the following information in the final report:

- time period when the assessment took place
- goal(s) of the program that were assessed
- outcome(s) of the program that were assessed
- description of how courses, assignments, student sample, and assessors were selected
- course names and numbers that were involved
- number of students selected for the sample
- number of assessors participating
- scoring categories and rating scale used