

## Sample Rubric for Assessing Photographs

### 1. Concept, idea, visualization:

- 10 pts Shows coherency of the concept with a high degree of originality and sophistication. The idea is well stated with visual elements and cues.
- 9 pts Shows coherency of the concept with some originality and sophistication. The idea is stated with visual elements and cues but needs to be more clear or more strongly evident.
- 8 pts Shows some coherency of the concept with commonly used, cliché or stereotyped imagery. The idea is obtuse, and requires greater clarity through the use of visual elements and cues.
- 7 pts Lacks general coherency of the concept. Many of the visual elements and cues do not lead the viewer to the intended idea.
- 6 pts Lacks any coherency of the concept. Visual elements and cues do not lead the viewer to the intended idea.
- 0 pts The work was not presented to me.

### 2. Composition & design:

- 10 pts Shows strong internal integrity of the visual elements. Nothing needs to be added or removed – framing is superb.
- 9 pts Shows internal integrity of the visual elements. A visual element needs to be added, moved or removed – framing needs some slight adjustment.
- 8 pts Shows obvious weaknesses in the internal integrity of the visual elements. Many visual elements need to be added, moved or removed – framing needs definite adjustments.
- 7 pts Image is breaking apart – there is very little internal integrity of the visual elements. Most visual elements need to be rethought – framing needs major readjustment.
- 6 pts Visual integrity is nonexistent and image has broken apart. All of the visual elements need to be rethought – framing needs a complete overhaul.
- 0 pts The work was not presented to me.

### 3. Technical:

- 10 pts Shows master in the use of photographic equipment and techniques to attain the assignment parameters.
- 9 pts Shows a good command of the use of photographic equipment and techniques to attain most of the assignment parameters.
- 8 pts Shows some command of the use of photographic equipment and techniques to attain some of the assignment parameters.
- 7 pts Shows limited command of the use of photographic equipment and techniques to attain a few of the assignment parameters.
- 6 pts Shows little or no command of the use of photographic equipment and techniques to attain a few or none of the assignment parameters.
- 0 pts The work was not presented to me.

## **Sample Rubric for Oceanography 10 Lab Project**

### **Bathymetric Map and Cross Section (Lab #2) Grading Criteria**

#### **An “A” grade (9 or 10 out of 10):**

- The contour lines are extremely smooth and evenly spaced with none of them touching each other.
- Every water depth # has the appropriate contour line next to it and the entire map is “contoured”.
- The overall presentation is excellent.
- The cross section is accurate and complete and the bottoms of the canyons and top of the ridge are not flat.
- The ends of the cross section are complete and the paper shows the vertical exaggeration.

#### **A “B” grade (8 out of 10):**

- The contour lines are neat and smooth and appropriately spaced and some are touching, but very few.
- Nearly all the water depth #'s are contoured, some may be missing, but very few.
- The overall presentation is good and very few “shadows” are showing.
- The cross section is accurate, but some information is missing, particularly on the ends.
- Vertical exaggeration may or may not be shown.

#### **A “C” grade (6 or 7 out of 10):**

- The contour lines are a little wide and show fringes, some may have double ends and some of them are obviously touching each other.
- Some of the water depth #'s may not be contoured and the contour lines are all not evenly or properly spaced. There may be shadows on the map and the overall presentation is slightly sloppy.
- The cross section is mostly accurate, but some information is off line and missing, particularly on the ends.
- Vertical exaggeration may not be shown.

#### **A “D” and “F” grade (5 or less out of 10):**

- The contour lines are sloppy and inaccurate and some or many are touching each other.
- Several of the water depth #'s are not accurately contoured and the map is not complete.
- The overall presentation is below or far below average.
- The cross section is inaccurate, and much information is off line and missing.
- Vertical exaggeration may be shown.

Developed by Dave Schwartz, Geology, Cabrillo College.

## English 1A Essay Rubric

### **WOW!!! (90-100 Points - Grade A)**

- Begins with an introduction that shows your understanding of the issues, grabs your readers' attention, and presents a strong and insightful thesis or point of view.
- Engages the topic in a thoughtful and individual way, showing originality, elegance and clear thinking.
- Develops the topic using a strong detail, quotes from other sources, and a unique synthesis of ideas.
- Utilizes library research and quotes from outside sources, always properly citing them using the MLA format.
- Possesses a fully explained and logical progression of ideas that indicates the writer's sensitivity to different ways of looking at the topic with an awareness of key counter arguments and a consideration of how those alternate positions shape your understanding of the topic.
- Ends with a strong conclusion that clarifies the significance of the paper's lessons
- Chooses words aptly and sometimes inventively.
- Demonstrates mastery of most of the grammar and usage conventions of Standard English.
- Uses phrasing, tone, and expression that reflects a unique personal voice.

### **Good! Almost There (80-89 Points - Grade B)**

- Begins with an introduction that shows some understanding of the issues, gives some background and has an adequate thesis or point of view.
- Presents a thoughtful response to the topic, using appropriate reasoning and a partially realized analysis that is accurate.
- Develops the topic showing appropriate details, a sense of orderly progress between ideas, and use of references that reveal a familiarity with the topic.
- Uses words precisely if not creatively.
- Varies sentence structure enough to read smoothly.
- Utilizes library research and quotes from outside sources, usually properly citing them using the MLA format.
- Uses competently the conventions of written English, containing few, if any, errors in sentence structure, punctuation and capitalization or usage.
- Uses mostly consistent phrasing, tone and expression that reflects a personal world view and style.

### **Getting there (70-79 Points - Grade C)**

Presents an adequate response to the topic, using superficial analysis and weak point of view.

Uses logical reasoning, but the supporting evidence is general and imprecise with few examples. There may be some small factual errors.

Uses a less precise vocabulary and may contain awkwardness of expression.

Utilizes library research and quotes from outside sources, with fairly consistent use of the MLA citation format. May make some errors.

Contains minor errors in mechanics and usage, and perhaps one or two more distracting errors in sentence structure.

Uses fairly consistent phrasing, tone and expression that reflect a personal world view and style with occasional inconsistencies.

### **Try Again (60-69 Points - Grade D)**

Responds to the topic illogically, without a coherent structure or focus.

Has no point of view, uses mostly summary and lacks evidence and support.

Makes several large, factual errors.

Makes enough errors in usage and sentence structure to cause a reader serious, if occasional, distraction.

Improperly uses the MLA format for citations. Makes major errors in quoting and uses few sources.

Uses frequently inconsistent phrasing, tone and expression, often formulaic and imitative; lacks evidence of a personal worldview and style.

### **Let's not even go there (50-59 Points - Grade F)**

Doesn't attempt the task or distorts it

Lacks organization or detail.

Contains many distracting errors in sentence structure, simplistic or inaccurate word choice, many repeated errors in grammar and usage.

Not enough is written to get a sense of personal worldview and style.

# English 1A Grading Sheet

## Paper #1-7 Grading Sheet

Name: \_\_\_\_\_ Total Grade: \_\_\_\_\_

This paper is one of the pieces of evidence for Outcomes #3 and 4:

- **Write essays**, including research-based writing, **demonstrating** academic rhetorical strategies and documentation.
- **Analyze** and evaluate assigned and researched texts.

Based on the grading scale listed under Grading Requirements, your grade is divided into the elements listed in the chart below.

<b>Elements of Grade</b>	<b>Wow!</b>	<b>Good</b>	<b>Getting There</b>	<b>Try Again</b>	<b>Let's Not Go There</b>
Introduction					
Thesis or Claim					
Response to Topic					
Evidence to support thesis					
MLA citation and documentation					
Awareness of counter arguments					
Flow and order of Ideas					
Conclusion					
Word Choice					
Grammar and Punctuation					
Personal Voice					

Grammar/Writing Issues  
Last Paper:

Grammar/Writing Issues  
This Paper:

**Comments:**

## Sample Rubric - Chemistry 1A/1B Pre-laboratory Assignment

### 3 (Excellent)

- Purpose and Overview section clearly states the purpose of the lab and what will be determined during the experiment
- Explains in general terms how it will be determined (what experimental techniques will be used and the sequence of events)
- Purpose and Overview includes the balanced equation for any chemical reactions.
- The purpose and overview section does not include experimental steps. It gives the reader a good overall idea of the point of the experiment and how it will be accomplished.
- The prelab questions (if any) are done correctly and are clearly explained and/or labeled.
- The procedure outline is a summary of the procedural steps but does not include too much detail.
- The data table is complete, labeled thoroughly, and organized in a clear and logical way.
- The writing style is clear and understandable and there is a logical progression of ideas.

### 2.5 (Good)

One item described above is omitted or not done correctly, or minor mistakes are made in answering the prelab questions.

### 2 (Adequate)

Two items described above are omitted or not done correctly, or mistakes are made in answering the prelab questions.

1.5 (Needs Work) Several omissions and/or mistakes are made.

1 – 0.5 (Unacceptable) Incomplete prelab

0 No prelab or prelab not submitted before the lab period begins

### Missing Items:

- Purpose and Overview section does not clearly state the purpose of the lab and what will be determined during the experiment
- Purpose and Overview section does not explain in general terms how it will be determined (what experimental techniques will be used and the sequence of events)
- Balanced equation(s) is/are missing
- Purpose and Overview section is too detailed and/or lists experimental steps
- Purpose and Overview is not clear or understandable
- There isn't a logical progression of ideas in the Purpose and Overview
- Missing or incomplete procedure section
- Too much detail in the procedure section
- Missing or incomplete data table
- Missing, incomplete, or incorrect prelab questions (if applicable)

## Sample Grading Rubric for Expt. 10, Chem 1B – Titration Curve

\_\_\_\_\_ (3 points) **Prelab** (already assigned)

\_\_\_\_\_ (4 points) **Graph construction and interpretation:** titration curve and close-up graphs

Excellent – no errors or omissions (4)	Good – one minor error or omission (3 - 3.5)	OK – more than minor errors but correct general idea (2 - 2.5)	Needs work – serious errors (1 - 1.5)	Unacceptable – incomplete or missing (1 - 0)
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- Descriptive title
- Axes labeled with quantities and units
- Graph takes up whole page
- Axes are chosen so that points are spread out on the page
- 1, 2, 5 rule followed
- Best straight or curved lines through data
- Estimating values from graphs

\_\_\_\_\_ (6 points) **Calculations:** should be clear, logical, and labeled completely

Excellent – no errors (6)	Good – very minor errors or correct but unclear (5.5 - 5)	OK – more than minor errors but correct general idea (4.5 - 3.5)	Needs work – serious errors (3 - 2)	Unacceptable – incomplete calculations (1.5 - 0)
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- $K_a$  of acid
- Concentration of solution
- Molar mass of acid
- Calculate pH at beginning of titration
- Calculate pH at  $\frac{1}{4}$  and  $\frac{3}{4}$  point
- Calculate pH at equivalence point
- Calculate pH at 120%
- Compare calculated pH's to pH's on graph.
- Which points agree better than others and why?

\_\_\_\_\_ (3 points) **Evaluation of Results** - sources of error

(3) **Excellent:**

- Thoughtful, deep explanation of likely sources of experimental and systematic error.
- The explanation is clear and easy to understand.
- It includes the most obvious sources of error, and a few other less obvious sources.
- For each source of error, there is an analysis of how it would affect the final results – would each error make the calculated result higher or lower than its true value?
- The analysis is correct.

(2) **OK:** Explanation of errors shows evidence of careful thought but there is no analysis of how it would affect the final results. OR: an obvious source of error not mentioned.

(1) **Needs work:** Errors are mentioned but not explored completely.

\_\_\_\_\_ **Total (out of 16)**

Rubric Created by Cheli Fossum, Chemistry Department, Laney College

## Sample Lab Grading Rubric for Experiment 17, Chem 1B

### Prelab:

#### **5 (Excellent)**

- Purpose and Overview section clearly states the purpose of the lab and what will be determined during the experiment
- Explains in general terms how it will be determined (what experimental techniques will be used and the sequence of events)
- Purpose and Overview includes the balanced equation for any chemical reactions.
- The purpose and overview section does not include experimental steps. It gives the reader a good overall idea of the point of the experiment and how it will be accomplished.
- The prelab questions are done correctly and are clearly explained and/or labeled.
- The procedure outline is a summary of the procedural steps but does not include too much detail.
- The data table is complete, labeled thoroughly, and organized in a clear and logical way.
- The writing style is clear and understandable and there is a logical progression of ideas.

**4 (Good)** One item described in "5" is omitted or not done correctly, or minor mistakes are made in answering the prelab questions.

**3 (OK)** Two items described in "5" are omitted or not done correctly, or mistakes are made in answering the prelab questions.

**2 (Needs Work)** Several omissions and/or mistakes are made.

**1 (Unacceptable)** Incomplete prelab

**0** No prelab or prelab not submitted before the lab period begins

### Missing Items:

- Purpose and Overview section does not clearly state the purpose of the lab and what will be determined during the experiment
- Purpose and Overview section does not explain in general terms how it will be determined (what experimental techniques will be used and the sequence of events)
- Balanced equation(s) is/are missing
- Purpose and Overview section is too detailed and/or lists experimental steps
- Purpose and Overview is not clear or understandable
- There isn't a logical progression of ideas in the Purpose and Overview
- Missing or incomplete procedure section
- Too much detail in the procedure section
- Missing or incomplete data table
- Missing, incomplete, or incorrect prelab questions (if applicable)

### Graph Construction and Interpretation:

#### **5 (Excellent)**

- Graph has a descriptive title
- The axes are labeled clearly with numbers and units
- The axes are chosen to spread out the points on the page
- The axes follow the 1, 2, 5 rule (each division = 1 or 2 or 5 or 0.1 or 0.2 or 0.5 or 10 or 20 or 50 etc. so that it is very easy to estimate between the lines on the graph)
- The plotted points are shown
- The best straight line is drawn
- Values of chosen points are estimated correctly from the graph

**4 (Good)** One of the items listed in "5" is missing or not done correctly.

**3 (OK)** Two of the items listed in "5" are missing or not done correctly.

**2 (Needs work)** Three of the items listed in "5" are missing or not done correctly.

**1 (Unacceptable)** Four of the items listed in "5" are missing or not done correctly.

**0** No graph

### **Data Collection and Observations:**

- 3 (Good)** All data is included and labeled clearly. All experimental observations are included.
- 2 (Adequate)** Some observations are missing
- 1 (Needs work)** Data is missing
- 0 (Unacceptable)** No data or observations are included

### **Calculations:**

- 8 (Excellent)** All calculations are clear, logical, and labeled completely. There are no calculation errors or significant figure errors.
- Calculation of concentration of tetraborate in each sample
  - Calculation of  $[\text{Na}^+]$
  - Calculation of K
  - Table of  $\ln K$  and  $1/T$  values
  - Calculation of slope of graph (done by hand, not obtained from computer)
  - Calculation of  $\Delta H^\circ$
  - Calculation of y-intercept (done by hand, not obtained from computer)
  - Calculation of  $\Delta S^\circ$
- 7 (Very good)** Calculations are clear and logical but there are errors in the number of significant figures reported.
- 6 (OK)** One mistake in calculations, or calculations are unclear
- 5-3 (Needs work)** Calculations are unclear or messy. Mistakes made in calculations.
- 2 (Unacceptable)** Calculations contain several mistakes.
- 1 (Unacceptable)** Errors in every part of the calculations
- 0** Calculations not done

### **Experimental Results – Accuracy and Precision:**

- 3 (Good)** Results agree with accepted values.
- 2 (OK)** There is some scatter in the data points on the graph, but the final results are acceptable.
- 1 (Needs work)** Results are very far from accepted values. There is evidence of poor lab technique.

### **Evaluation of Results:**

- 5 (Excellent)**
- Thoughtful, deep explanation of likely sources of experimental and systematic error.
  - The explanation is clear and easy to understand.
  - It includes the most obvious sources of error, and a few other less obvious sources.
  - For each source of error, there is an analysis of how it would affect the final results – would each error make the calculated result higher or lower than its true value?
  - The analysis is correct.
- 4 (Good)** Errors are discussed and discussion shows evidence of careful thought, but one important error is missing.
- 3 (OK)** Errors are discussed but not clearly or specifically enough, or there is no analysis of how each error would affect the final results.
- 2 (Needs work)** Errors are briefly mentioned but not explored completely. Some obvious sources of error not discussed.
- 1 (Unacceptable)** Some errors are mentioned, but not many. There is no attempt at analysis.
- 0** Evaluation is missing.

### **Questions:**

**5 (Excellent)**

- All questions involving calculations are done correctly
- Calculations are labeled clearly
- Calculations are easy to understand
- Calculations have correct answers with the correct number of significant figures.
- All questions involving explanations are explained clearly and completely.

**4 (Good)** There are minor mistakes (but not many) in calculations or significant figures. Some of the written explanations could be more complete or clear, but all explanations are basically correct.

**3 (OK)** Some mistakes in calculations, some incorrect answers on the questions requiring explanations, but generally more answers are correct than incorrect.

**2 (Needs work)** More answers incorrect than correct

**1 (Unacceptable)** An attempt was made to answer the questions but there were lots of mistakes

**0** Questions were omitted

### **Overall Format, Clarity, and Neatness:**

**5 (Excellent)** Especially neat and clear, very easy to understand

- The lab report contains all sections in the correct order.
- It is easy to read (lettering/printing) and has a logical organization.
- There is enough empty space between things so that all information is clear and readable.
- Data tables are neat.
- Everything is labeled completely.
- The reader does not have to struggle to understand your work and logic

**4 (Good)** Report is missing one of the traits mentioned in “5” but is still easily readable and understandable.

**3.5 (OK)** Mostly clear and understandable but parts take some effort to follow

**2 (Needs work)** Report is not arranged logically. Printing is messy. Sections are hard to locate. Information is cramped and requires effort to decipher. Organization detracts from clarity.

**1-0 (Unacceptable)** Extremely messy and hard to understand.

**Overall Score:** (raw score/39 points) × 30 points possible = Score out of 30 points

## How to construct a rubric

1. Decide on a manageable number of important dimensions of the assignment. (For example: organization, clarity, grammar/mechanics, depth of analysis, creativity, etc.)
2. For each dimension, define “exemplary” performance. Be as specific as possible.
3. Decide how many performance levels you would like to include. Decide on the labels for each performance level. Examples:
  - Excellent, competent, needs work (3 levels)
  - Exemplary, competent, developing (3 levels)
  - Accomplished, proficient, developing, beginning (4 levels)
  - Distinguished, proficient, intermediate, novice (4 levels)
  - Well done, satisfactory, needs work, incomplete (4 levels)
  - Excellent, good, adequate, needs work, incomplete (5 levels)
4. Define the remaining performance levels (“good”, “adequate”, “needs work”, etc.) for each dimension. Be as specific as possible.
5. Assign points for each category. Make sure that the number of points assigned corresponds to the appropriate grade according to your grading scale. Each dimension can be weighted differently, since there may be some aspects of the assignment that are more important than others.

If using a rubric seems too formulaic to you, it’s possible to build some flexibility into the rubric. If creativity or extra effort is important to you, just include it as one of the dimensions of the rubric and weight it accordingly.

## Rubric Scoring and translation to grades

Care must be taken in determining a score or grade from a rubric to ensure that the score students receive corresponds to the grade they should get. For example, if you use a 4-point scale for your rubric dimensions,

4 = A

3 = B

2 = C

1 = D

0 = F

(this is similar to the GPA scale)

However, this doesn’t translate to the usual scores for determining grades.

The typical overall percentages for grades are as follows (and yours might be a little different than this):

90-100% = A  
80-89% = B  
70-79% = C  
60-69% = D  
below 60% = F

For example, if a student got a 2 on every rubric dimension (the equivalent of a C), if you determine the percentage based on points, the student would get 50% ( $2 \text{ obtained} \div 4 \text{ possible} = 0.5$  or 50%). This would mean that the student receives the equivalent of an F on the assignment!

To come up with appropriate scoring, you can either:

A. Re-interpret your rubric scores using a “rubric converter”, available at <http://www.rubricconverter.com> for a charge.

Or:

B. Define the number of points for each trait on the rubric so that the points work out to the correct grade.

If, for example, you want to use a 4-category scale for your rubric, and if the categories are approximately equal to A, B, C, and D,

- You could set the A to 100% and give it a 4 out of 4.
- B could be set at 85% or 80%:  $4 \times 0.85 = 3.4$  points, or  $4 \times 0.8 = 3.2$  points (you might choose 3.5 points, which translates to 87.5%)
- C could be set at 75% or 70%:  $4 \times 0.75 = 3$  points, or  $4 \times 0.7 = 2.8$  points (you might choose 3 points, which is 75%.)
- D could be 65% or 60%:  $4 \times 0.65 = 2.6$  points, or  $4 \times 0.6 = 2.4$  points. (2.5 points would correspond to 62.5%)
- F could be anything within a wide range. (0-2 points)

You might have a three-point or five-point scale instead. No matter what grading scale or weighting you use, it's possible to set up the rubric so that the number of points earned matches the appropriate grade. For each category and each dimension, just make sure the number of points you're assigning makes sense. Calculate the percentage for each (points earned divided by points possible  $\times 100$ ) and make sure it's consistent with what you want and your grading scale.

If you would like some help on this, contact Cheli Fossum at [mfossum@peralta.edu](mailto:mfossum@peralta.edu) or 464-3272.

## Defining Rubric Components

The following worksheets may help you create your rubric. The first step in designing a rubric is to define **the elements or components** that compose the assignment that will be grading. What are the types of things you are looking for? What elements go into determining a student's grade? Use the Rubric Component Worksheet to articulate the particulars of the assignment. If you're not sure how to begin, look over the sample rubrics once more to see how other instructors defined their rubric components. (Use of this worksheet is completely optional. If you'd rather go about it in a different way, please do!)

### Rubric Component Worksheet

<b>Assignment</b>	
<b>Assignment Components</b>	
1.	2.
3.	4.
5.	6.
7.	8.

## Describing Levels of Success

Use the worksheets to articulate your standards for each component in each grade level.

<b>Score: A</b> Write a sentence that describes the component at this level. Be as specific as possible.	
Component 1:	
Component 2:	
Component 3:	
Component 4:	
Component 5:	
Component 6:	
Component 7:	
Component 8:	

Score: **B**

Write a sentence that describes the component at this level. Be as specific as possible.

Component 1:

Component 2:

Component 3:

Component 4:

Component 5:

Component 6:

Component 7:

Component 8:

Score: **C**

Write a sentence that describes the component at this level. Be as specific as possible.

Component 1:

Component 2:

Component 3:

Component 4:

Component 5:

Component 6:

Component 7:

Component 8:

Score: **D**

Write a sentence that describes the component at this level. Be as specific as possible.

Component 1:

Component 2:

Component 3:

Component 4:

Component 5:

Component 6:

Component 7:

Component 8:

Score: **F**

Write a sentence that describes the component at this level. Be as specific as possible.

Component 1:

Component 2:

Component 3:

Component 4:

Component 5:

Component 6:

Component 7:

Component 8:

## Making A Rubric Document

As the sample rubrics demonstrated, there are many ways to assemble the standards and criteria you have just articulated into some kind of document that you can show students. A chart works well for rubrics with only a few components, such as the one created by Amy Bohorquez for essays in her Biology class. A rubric with many components may need to be written out in detail, like the English 1A one. There is not just one “right” way to do this. You must find the method and shape that best fits your style and topic. The key issue, however, is **clarity**. You want your rubric to be easily understood by your students.

Once you have put together your rubric, try to find other faculty who you can show it to. See if it makes sense to them. It helps to ask faculty outside your discipline, because perhaps they will be novices in the subject area, just like your students at the beginning of your course. If faculty in other disciplines can understand your rubric, hopefully your students will be able to as well.

Once you actually start using your rubric in your classes, you may find that you need to modify it. There may be areas that are unclear or need more delineation. You may not have included an element that you find is very important. Consider your rubric a work in progress and expect it to change over time.

## **How to use a rubric to collect assessment information**

1. Hand out the rubric to your students along with the assignment. Discuss in class how it will be used.
2. When students turn in their completed work, grade it using the rubric. Circle appropriate items on the rubric when grading, add comments if necessary, and add up the points.
3. Make photocopies of the completed rubrics.
4. Staple the completed rubric to the assignment and return the work to students.
5. For each component/dimension/primary trait (organization, analysis, voice, content, etc.), tally the number of students in each performance category. (For example, how many students had “excellent” organization? How many had “good” organization? How many had organization that “needs work”?)
6. Analyze the results. Were there any dimensions/primary traits that had low overall scores? Focus your improvement efforts on those aspects. (What could you do differently in class? More explanation of that aspect? A clearer handout explaining that aspect? An additional assignment that specifically focuses on that aspect? More practice? More feedback? Providing a model?)
7. Report on your results and the improvements made as a result of the assessment.

## Resources - Rubrics

More information on rubrics can be found in the following books. All of them are highly recommended and are available in the Laney College Library.

Huba, Mary E. and Jann E. Freed. *Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning*. Needham Heights: Allyn & Bacon, 2000.  
Rubrics are covered in Chapter 6.

Stevens, Dannelle and Antonia Levi. *Introduction to Rubrics*. Sterling: Stylus, 2005. (The entire book is useful. It shows the step-by-step creation of a rubric in Chapters 1 and 3.)

Suskie, Linda. *Assessing Student Learning: A Common Sense Guide*. Bolton: Anker, 2004.  
Rubrics are covered in Chapter 7.

Walvoord, Barbara and Virginia Johnson Anderson. *Effective Grading: A Tool for Learning and Assessment*. San Francisco: Jossey-Bass, 1998. Chapter 5 covers “primary trait analysis”. This is the same thing that we do when we define our standards for a rubric. Appendix C shows many examples of different rubrics. (In the book, they are referred to as “primary trait-based scales”.)

**Helpful online resources:** (collected by Dr. Karolyn van Putten)

<http://www.rubricconverter.com>

Converts rubric scores to grades.

<http://rubistar.4teachers.org/index.php>

This website creates rubrics of various types for you! It is definitely worth a look.

<http://gsi.berkeley.edu/resources/grading/introduction.html>

Contains very useful information on grading and rubrics.

<http://www.middleweb.com/CSLB2rubric.html>

<http://www.teachervision.fen.com/teaching-methods/rubrics/4521.html>

[http://edweb.sdsu.edu/triton/july/rubrics/Rubric\\_Guidelines.html](http://edweb.sdsu.edu/triton/july/rubrics/Rubric_Guidelines.html)

[http://edweb.sdsu.edu/triton/july/Rubrics/Rubric\\_Template.html](http://edweb.sdsu.edu/triton/july/Rubrics/Rubric_Template.html)

[http://www.teach-nology.com/web\\_tools/rubrics/](http://www.teach-nology.com/web_tools/rubrics/)

<http://www.bridgew.edu/AssessmentGuidebook/>

<http://pareoline.net/getvn.asp?v=7&n=3>

<http://school.discovery.com/schrockguide/assess.html>

# **Part 5: Program Outcomes and Assessment**

## Program Outcomes

The accreditation standards require that we determine student learning outcomes for any degrees and certificates that we offer. Here are the steps to follow to determine the outcomes for your program.

1. Define your program. Does your department offer a degree or certificate? If so, that's your program. If not, think of a sequence of classes that students usually take and assume that is your program. You may have more than one program for your department.

(Example: There isn't a chemistry degree or certificate at Laney. We decided to focus on a sequence of courses: One year of general chemistry and one year of organic chemistry (Chem 1A, 1B, 12A, 12B). This is the sequence of classes taken by chemistry majors, biology majors, pre-medicine, pre-dental, and pre-pharmacy students. We later realized that we had another program: the Chemistry 30A/30B sequence, taken by pre-nursing students.)

2. Meet as a department and brainstorm to come up with outcomes for your program. What should students be able to DO after completing the program? See Ruth Stiehl, The Outcomes Primer, pp. 57-59 for a good approach.

3. Check for alignment of the courses with the program. For each program outcome, note which class addresses that outcome. If some outcomes are not addressed in any of the classes, you might consider modifying one or more courses so that they do address the missing outcome(s). (You might do this if you feel that the outcome in question is very important.) Alternatively, you could consider modifying the outcome to something more reasonable or doable.

4. Check for alignment of the course outcomes and the program outcomes. Each course should probably have at least one outcome in common with the overall program outcomes. They do not have to be worded identically.

5. Plan how and when you will assess each program outcome. Plan to assess each outcome cyclically. For example, you might assess one program outcome next semester and two the following semester, etc. Each outcome should be assessed within a two-year or three-year cycle.

After collecting assessment results, analyze them, discuss them, and use them in the department as a basis for improvement. Document the results and the corresponding improvements using the outcomes and assessment reporting forms, and submit the forms electronically to the Learning Assessment Committee. Include this information in your program review.

## Process for Determining Program Outcomes

Used in a workshop given by Ruth Stiehl at Laney and Merritt Colleges, Fall 2005

1. Gather materials: post-it notes, pens and markers, tape, flip charts or large pieces of paper to post on the wall. Post the large paper on the wall. Each participant gets a stack of post-it notes and a pen.
2. You will need most of your department members. If your department is very small, people outside of your department could also participate. This process will work best if you have at least three people in your working group.
3. The question: What should students be able to DO after completing the program? Sometimes it helps to imagine what skills you want them to take with them out into the world.
4. Brainstorm: Each group member should write ideas/responses (to “what should students be able to **do** after completing the program?”) on post-it notes, one idea per post-it. Start each statement with an action verb. Post the notes on the wall-mounted paper in any order. Get as many ideas out as possible, and don’t censor anything. For this part, work in silence, and don’t discuss any of the responses yet. This part should take 15-25 minutes. Keep going until you can’t think of any more ideas.
5. Rearrange the post-its to group similar or related ideas together. Work as a group and discuss the responses as you go. Feel free to throw out responses that don’t seem to fit. Take as much time as you need to come to consensus.
6. Using a marker, draw a box or circle around each cluster of ideas. For each cluster, come up with one statement that summarizes the ideas in that group. Make sure your statement starts with an active verb. Write it down on the paper next to the cluster. Do this for each cluster of ideas.
7. Each of the general summarizing statements from the previous step is one program-level outcome. You now have your program outcomes. Easy!  
Make sure to then check for alignment, decide on assessment methods, and submit your work, as described on the previous page.

## Checking for Alignment

The following matrix is helpful in determining if your intended program outcomes are consistent with your curriculum.

List the program outcomes across the chart, and the course numbers down the side of the chart (or vice versa). For each course, indicate whether each outcome is introduced, practiced, or demonstrated in that course. Usually, not every outcome is addressed in every course. **However, each program outcome should be addressed in at least one course.** It even better if an outcome is addressed in more than one course, so that students will get more exposure and practice with each of the outcomes your department has decided is important.

If you complete this matrix and you find that there are some program outcomes that are not addressed in any courses, you have two options. You could modify or redesign one or more courses so that they do address your program outcomes. Alternatively, if one of your program outcomes seems too ambitious or if you can't figure out how to work it in to the course sequence, you could decide to eliminate the outcome.

### Program Outcomes Alignment Matrix

Department:					
Program:					
Course: (list course numbers)	Program outcome 1	Program outcome 2	Program outcome 3	Program outcome 4	Program outcome 5
Course A					
Course B					
Course C					
Course D					
Course E					
Course F					
Course G					
I = Introduced, P = Practiced, D = Demonstrated					

Here is an example of a completed program alignment matrix. Note that in this case, the courses were listed across the top of the page and the outcomes were listed on the side. This is the opposite setup compared to the blank matrix shown on the previous page. Either way is fine. This setup was chosen in this case because it seemed to fit better on the page. Also note that there is an entry in every box, but that may not necessarily be true for your program. The important part is that every program outcome is addressed in at least one course.

<b>Program Alignment Matrix</b>				
<b>Chemistry</b>				
<b>Program Outcome:</b>	<b>Chem 1A</b>	<b>Chem 1B</b>	<b>Chem 12A</b>	<b>Chem 12B</b>
1. Apply mathematics to solve quantitative chemical problems	I, P, D	I, P, D	P, D	P, D
2. Conceptualize, model, and explain chemical processes qualitatively at the molecular level	I, P, D	I, P, D	P, D	P, D
3. Maintain a laboratory notebook according to standard scientific guidelines	I, P, D	P, D	P, D	P, D
4. Extract appropriate information, analyze and synthesize experimental results to reach correct conclusions	I, P, D	I, P, D	P, D	P, D
5. Write clear, well-documented lab reports using the language of science	I, P, D	I, P, D	P, D	P, D
6. Perform laboratory techniques safely and accurately	I, P, D	I, P, D	P, D	P, D
7. Apply principles of scientific ethics and academic integrity	I	I	P	D
I = Introduced, P = Practiced, D = Demonstrated				

## Assessing Program Outcomes

1. As a department, decide which program outcome or outcomes to focus on this semester. It's best to limit yourself to just one or two outcomes per semester.
2. Decide how to assess the outcome. What assignments will you use to assess the outcome? How will you collect the information? What courses will you use assignments from? Will you collect assignments from every section of that course, or just certain sections?  
As you think about these questions, keep in mind that you are trying to get a sense of the entire program, not just individual instructors. If you choose to collect information from a sampling of sections, make sure to choose the sections randomly. If you only choose assignments from the best instructors and skip the worst instructors, your assessment results may look more impressive, but they will essentially be dishonest because your sampling was not representative. You will therefore not have accurate information that you can use. The whole point of assessment is to collect information that can be used for improvement. If you don't have accurate information, you won't really know the problem areas and the best ways to improve.  
  
Try to keep in mind that there is no shame in having disappointing assessment results. The point is what you do with that information. As long as the results are being used to inform changes and improvements, no one can fault you!
3. During the semester, have the instructors give the assignment and evaluate it using an agreed-upon rubric. You might decide to collect samples of student work. Keep copies of the completed rubrics.
4. After the semester, have each instructor report on their results. This can be done in writing or as a departmental discussion. Assign someone (the department chair or a designee) to compile and summarize the results. Report on commonalities. (There is no need to report on which instructor got which results – this can remain internal information for your department.) Suggest changes or improvements to be made as a result of the assessments. Plan to actually make those changes.

Here are some examples of possible changes or improvements you could consider:

- State goals or objectives of assignment/activity more explicitly
- Revise content of assignment/activities
- Revise the amount of writing/oral/visual/clinical or similar work
- Revise activities leading up to and/or supporting assignment/activities
- Increase in-class discussions and activities
- Increase student collaboration and/or peer review
- Provide more frequent or fuller feedback on student progress
- Increase guidance for students as they work on assignments
- Use methods of questions that encourage competency

- State criteria for grading more explicitly
- Increase interaction with students outside of class
- Ask a colleague to critique assignments/activities
- Collect more data
- Nothing; assessment indicates no improvement necessary
- Other (describe)

Here are some ideas for department-wide changes or improvements:

- Offer/encourage attendance at seminars, workshops or discussion groups about teaching methods
- Consult teaching and learning experts about teaching methods
- Encourage faculty to share activities that foster competency
- Write collaborative grants to fund departmental projects to improve teaching
- Provide articles/books on teaching about competency
- Visit classrooms to provide feedback (mentoring)
- Create bibliography of resource material
- Have binder available for rubrics and results
- Analyze course curriculum to determine that competency skills are taught, so that the department can build a progression of skills as students advance through courses
- Nothing; assessments indicate no improvements necessary
- Other (describe)

5. Report on the results using the reporting forms, and submit them electronically to the Learning Assessment Committee.

6. Implement the changes your department decided on, and then assess this same outcome again (sometime in the near future). Compare the previous results to the current results (after having made the changes). This will show you if your changes made any measurable difference. If not, try a different possible improvement next time.

## Resources

### **Laney College Learning Assessment Committee website**

<http://www.laney.peralta.edu/learningassessment>

### **How To Write SLOs website**

<http://www.laney.peralta.edu/SLOs>

Includes lots of example SLOs written by Laney instructors.

For assistance on developing SLOs and/or developing assessment methods, contact Cheli Fossum, the Learning Assessment Committee co-chair, at [mfossum@peralta.edu](mailto:mfossum@peralta.edu) or 464-3272.

### **Recommended Reading:**

The most accessible resource is an online manual on assessment for community colleges written by Janet Fulks at Bakersfield College. It is organized into sections on the rationale for assessment, how to write student learning outcomes, assessment tools and data, course assessment, program assessment, and so on. It is very easy to use and very quick to read. This should be the first place to go to learn more about outcomes and assessment. There are also plenty of other resources and links included.

*Assessing Student Learning in Community Colleges* (2004)

<http://online.bakersfieldcollege.edu/courseassessment/>

### **Good books on assessment:**

All of these books are available to check out from the Laney College Library. They are listed in order of preference/usefulness.

Suskie, Linda. *Assessing Student Learning: A Common Sense Guide*. Bolton: Anker, 2004.

Highly recommended. Comprehensive, easy to read, makes good sense. Includes short chapters on the reasons to assess, good assessment practices, creating assessment plans, establishing learning goals (SLOs), choosing assessment strategies, using rubrics to plan and evaluate assignments, creating effective assignments, encouraging student reflection, portfolios, writing tests, conducting surveys, focus groups, and interviews, selecting published assessment instruments, summarizing and analyzing assessment results, sharing assessment results, and using assessment findings effectively and appropriately.

Huba, Mary E. and Jann E. Freed. *Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning*. Needham Heights: Allyn & Bacon, 2000.

Comprehensive – covers the “paradigm shift” (from teaching to learning), learner-centered teaching techniques, SLOs, using feedback from students to improve learning, using rubrics, assessing critical thinking and problem solving, and using portfolios. Includes an excellent discussion of critical thinking and the value of solving ill-defined problems.

Walvoord, Barbara and Virginia Johnson Anderson. *Effective Grading: A Tool for Learning and Assessment*. San Francisco: Jossey-Bass, 1998.

Highly recommended. Includes chapters on the power of grading for learning and assessment, managing the grading process, making assignments worth grading, fostering motivation and learning in the grading process, establishing criteria and standards for grading, calculating course grades, communicating with students about their grades, making grading more time-efficient, using the grading process to improve teaching, and how to use grading as a tool for assessment.

Mary J. Allen, *Assessing Academic Programs in Higher Education*, Bolton: Anker, 2004.

Very clear and useful. Contains chapters on assessing educational outcomes, defining learning outcomes (SLOs), alignment of outcomes with the curriculum, assessment planning and implementation, direct assessment techniques (including published tests, locally developed tests, embedded assignments, competence interviews, and portfolios of student work), indirect assessment techniques (including surveys, interviews, focus groups, and reflective essays), making sense of assessment data, and putting it all together. Also includes the pros and cons of each assessment technique.

Stevens, Dannelle and Antonia Levi. *Introduction to Rubrics*. Sterling: Stylus, 2005.

Includes chapters on what rubrics are, why to use them, how to construct them, and how to grade using a rubric.

There are many other books on assessment available through the Laney College Library. Check the Learning Assessment Committee website for a link to the list of assessment books in the library.

<http://www.laney.peralta.edu/learningassessment>