

What is a Rubric?

Rubrics have become popular with teachers as a means of communicating expectations for an assignment, providing focused feedback on works in progress, and grading final products. Although educators tend to define the word “rubric” in slightly different ways, Heidi Andrade’s commonly accepted definition is a document that articulates the expectations for an assignment by listing the criteria, or what counts, and describing levels of quality from excellent to poor.

How to Score a rubric?

Rubrics are often used to evaluate student work. They are a tool to help you assess student performance and provide guidance on how to improve. They are also useful for creating a baseline of student performance and progress throughout the semester. When you create a rubric, you should consider what aspects of student work are important to you (e.g., accuracy, quality, clarity, organization). You may also want to include a set of criteria for each aspect of student work. For instance, if you were evaluating a research paper, you might ask yourself questions such as “Was the introduction clearly written? Were the methods clearly described?”

In a rubric with four dimensions, each dimension will count for 25% of the score (and grade), unless you weight one dimension more than the others. For this example, we will not weight any dimensions. With each dimension counting 25%, or 25 out of 100, the top score should be equal to 25, or at least 23 points ($23 \times 4 = 92$). If you feel that Level 2 of the scale is worth between a B and a C, then the score for Level 2 should be between 17 and 22 points. The lowest level takes a little more thought, and the lowest score for that level will depend on how low you want to allow the score of a completed assignment to be. In this example, a student who scored a level 2 in each dimension could receive a grade between 72 and 88.

Unit Title: Introduction to a Design Project for Engineers



Student Name: _____

CATEGORY	4 Points	3 Points	2 Points	1 Points
Plan	Plan is neat with clear measurements and labeling for all components. Meet all the specifications required.	Plan is neat with clear measurements and labeling for most components. Most of the specifications were present.	Plan provides clear measurements and labeling for most components. One or two of the specifications were present.	Plan does not show measurements clearly or is otherwise inadequately labeled. None of the specifications required were present.
Safety and Function	Structure functions extraordinarily well, holding up under atypical stresses.	Structure functions well, holding up under typical stresses. Most of the safety criteria required was present.	Structure functions pretty well, but deteriorates under typical stresses. One or two of the required safety criteria was present.	Fatal flaws in function with complete failure under typical stresses. None of the safety criteria required was present.
Final Product/ Cost Effectiveness	Great care taken in the design process so that the structure is neat, attractive and follows plans accurately. Design was cost effective.	Design was careful and accurate for the most part, but 1-2 details could have been refined for a more attractive product. Design mostly cost effective.	Design accurately followed the plans, but 3-4 details could have been refined for a more attractive product. Design was somewhat cost effective.	Design appears careless or haphazard. Many details need refinement for a strong or attractive product. Design was not cost effective.

Understanding of Design Principals and Software Application	Explanations by all group members indicate a clear and accurate understanding of scientific principles underlying the design and utilizing design software to it's full potential.	Explanations by all group members indicate a relatively accurate understanding of scientific principles underlying the design and utilizing design software to it's somewhat full potential.	Explanations by most group members indicate relatively accurate understanding of scientific principles underlying the design and utilizing design software to some of it's potential.	Explanations by several members of the group do not illustrate understanding of scientific principles underlying the design and did not utilizing the design software to it's potential.
Total Points for each column				

Final Grade _____