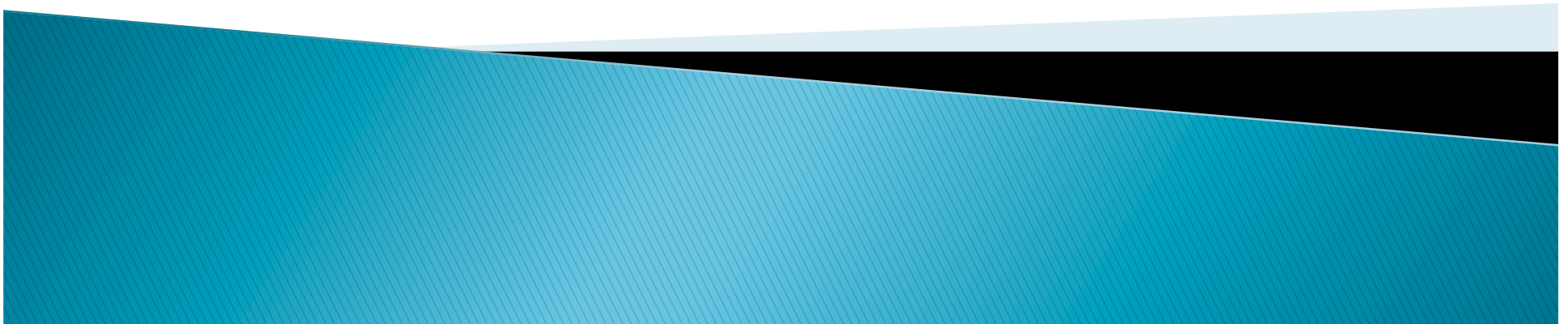


Student Learning Outcomes (Pharmacy)

Elizabeth Yost Hammer
Director, CAT+FD



What are student learning outcomes (SLOs)?

- ▶ Statements that specify what students will know, be able to do, or be able to demonstrate when they have completed a program/activity/course/project.
- ▶ Outcomes are usually expressed as knowledge, skills, attitudes, or values.



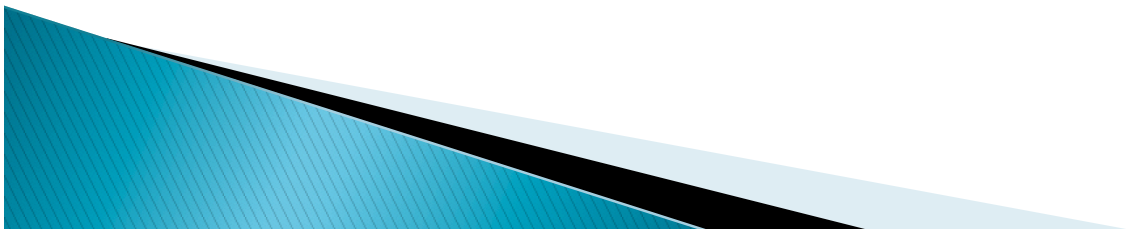
What are the characteristics of good SLOs?

- ▶ SLOs specify an action by the student that must be
 - observable,
 - measurable,
 - and able to be demonstrated.



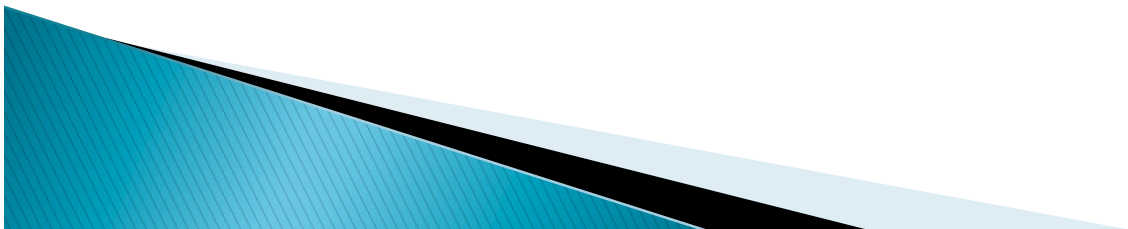
Example 1

- ▶ **Goal:** Enhance reading comprehension
- ▶ **Outcome:** By the end of the course students will be able to draw conclusions from empirical journal articles in biology.
- ▶ **Strategy:** Guided reading activities, article critiques
- ▶ **Assessment:** Inclusion of this criteria on rubric for end of the semester research paper



Example 2

- ▶ **Goal:** Enhance social responsibility
- ▶ **Outcome:** By the end of the course students will be better able to apply an understanding of cultural differences to issues in health.
- ▶ **Strategy:** Application papers, reflection journals
- ▶ **Assessment:** pretest–posttest on cultural differences in health



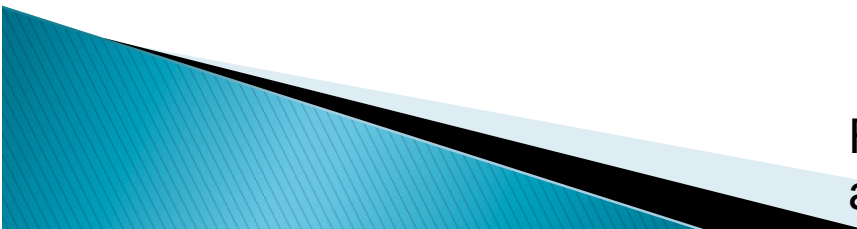
Your Example

- ▶ **Goal:**
- ▶ **Outcome:**
- ▶ **Strategy:**
- ▶ **Assessment:**



Rubrics help instructors:

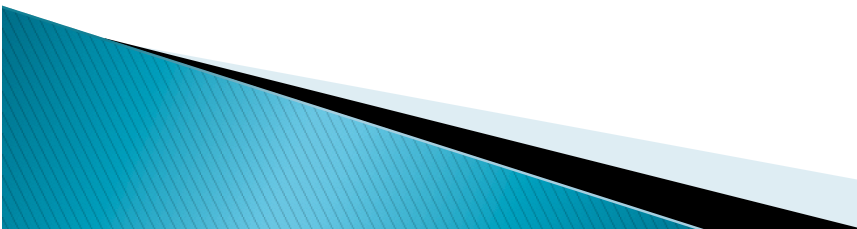
- ▶ Assess assignments consistently from student-to-student.
- ▶ Save time in grading.
- ▶ Give timely, effective feedback and promote student learning in a sustainable way.
- ▶ Clarify expectations an assignment for students.
- ▶ Refine teaching skills by evaluating rubric results.



From <http://www.cte.cornell.edu/teaching-ideas/assessing-student-learning/using-rubrics.html>

Rubrics help students:

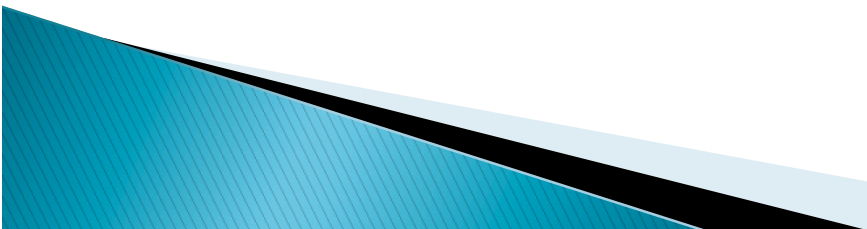
- ▶ Understand expectations and components of an assignment.
- ▶ Become more aware of their learning process and progress.
- ▶ Improve work through timely and detailed feedback.



From <http://www.cte.cornell.edu/teaching-ideas/assessing-student-learning/using-rubrics.html>

Rubric Development Guidelines

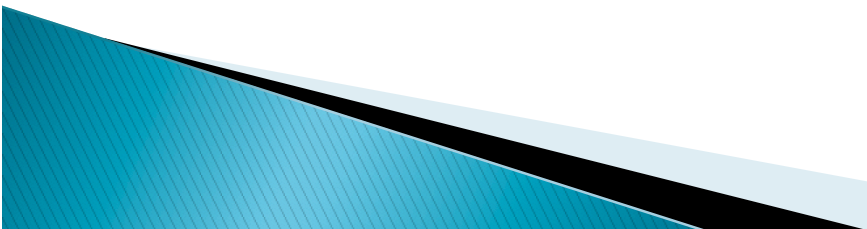
- ▶ Examine an assignment for your course.
- ▶ Outline the elements to be evaluated (these attributes must be objectively measurable).
- ▶ Create an evaluative range for performance quality under each element; for instance, “excellent,” “good,” “unsatisfactory.”
- ▶ Add descriptors that qualify each level of performance.



From <http://www.cte.cornell.edu/teaching-ideas/assessing-student-learning/using-rubrics.html>

Rubric Development Guidelines

- ▶ Avoid using subjective or vague criteria such as “interesting” or “creative”; instead, outline objective indicators.
- ▶ The criteria must clearly differentiate one performance level from another.
- ▶ Assign a numerical scale to each level.
- ▶ Give a draft of the rubric to your colleagues for feedback.
- ▶ Rework the rubric based on the feedback.



From <http://www.cte.cornell.edu/teaching-ideas/assessing-student-learning/using-rubrics.html>

Rubrics on Bb

Rubric

Name Reflective Journal Rubric

Description This rubric will be used to grade your Reflective Journal entries.

Rubric Detail

Criteria	Levels of Achievement		
	Missing/Poor	Average	Good
Addressed Question	0 Points	3 Points	5 Points
Thoughtful, reflective	0 Points	3 Points	5 Points
At least 300 words	0 Points	3 Points	5 Points

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