Course Alignment: Connecting 3 Elements

Three simple questions:
1. What do you want students to learn by taking your course? (outcomes)
2. What activities and assignments do you have them do so that they can achieve the course outcomes? (student work)
3. How will you evaluate whether they’ve achieved your outcomes? (your evaluation criteria)

Basic Terminology

- Outcomes: faculty expectations for what you want students to learn by the end of a course.
  "Students will be able to explain and employ basic methods for sediment analysis."
- Course objectives: traditional focus on what the course covers or what the faculty intends to accomplish.
  "This class provides an overview of the major concepts of oceanography."
- Be careful: academic units sometimes use the terms interchangeably which can be very confusing!

Outcome Characteristics

Useful outcomes:
1. Student-focused.
2. Manageable number.
3. Measurable.
4. Focused on learning that endures.
5. Aligned with program-level outcomes.
6. Aligned with discipline expectations for knowledge and learning.

Types of Outcomes

- Knowledge outcomes:
  Ex: ...Identify and explain major social identity theories.
- Skills outcomes: cognitive, interactive, creativity:
  Ex: ...Construct and orally present a persuasive and well-organized thesis addressing a major issue in the field.
- Attitudes outcomes:
  Ex: ...Evaluate and defend your position relative to assumptions and implications of different ethical concepts and perspectives.
Learning Outcomes Are Developmental: Action Verbs

Bloom's Taxonomy with applications

WRITE a story about Godfather and the Three Bears. How would it differ from Godfather and the Three Bears?

DEMONSTRATE what Godfather would use in a 1000-yard race.

JUDGE whether Godfather was good or bad. Defend your opinion.

EXPLAIN why Godfather used the适量 tips of the bear.

COMPARE the story to reality. What events could not really happen?

LIST the items used by Godfather while he was in the Bears' house.

NEW VERSION

Hoffmann and McGuire (2010)

Where does your course fit into the goals for student learning?

- Institutional mission and goals
  http://www.sandiego.edu/about/missiongoals/mission.php

- College or School mission and goals
  https://www.sandiego.edu/about/missiongoals.php

- Program mission and goals: department's curricular umbrella

- Course purpose and objectives: umbrella structure for a course

USD Mission

Biology 101

Biology Program and Course Outcomes

Communication

Communication Studies Program Core Outcomes

Critical Thinking

Critical Thinking

Intercultural Awareness

Intercultural Awareness

Science

Science
Align with Your Program 
Learning Outcomes (ex. Biology) University of San Diego

Upon completion of their Biology degree students should be able to:

1. Demonstrate a working knowledge of the foundational concepts of biology including cellular, organismic and evolutionary biology.
2. Integrate mathematical, physical, chemical and biological principles to better understand the functioning of biological systems.
3. Articulate and apply basic principles related to techniques and equipment used in biological investigations.
4. Critically analyze data and use results to evaluate hypotheses in the context of primary literature.
5. Formulate hypotheses informed by primary literature and test them using appropriate experimental and observational approaches.
6. Prepare and give written or oral presentations, using data, that synthesizes information from multiple sources including primary scientific literature.

Find Your Course in the Program Curricular Matrix

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Align with Core 
Learning Outcomes (ex. Biology) University of San Diego

Goal Statements, Natural Sciences:

1. Understand the basic concepts of the natural sciences;
2. Appreciate the process by which knowledge in the natural sciences is advanced;
3. Distinguish between sound science and unsound pseudoscience;
4. Use rigorous reasoning and the scientific method to test hypotheses;
5. Show familiarity with tools, techniques and instrumentation used in the natural sciences;
6. Appreciate the power and beauty of the natural sciences.

What do you want students to learn in your course?

- Start with an extensive set of concepts, analytical approaches or major skills
- Choose the most important ones to use as student learning outcomes
- State outcomes with active verbs appropriate to the course developmental level
- Make certain that you include program (or core) outcomes expected from your course
- Some outcomes may be specific to your course or section of a course
Sample learning outcomes from Bio 190

- Describe the role of natural selection in the evolution of life.
- Relate changes in DNA and gene expression to changes in the structure and function of organisms.
- Solve basic Mendelian genetic problems and Hardy-Weinberg equations in populations.
- Identify how organisms interact with others in their population, with other organisms and with the environment.
- Describe the diversity and complexity of ecosystems and what humans are doing to alter them.
- Read scientific articles and evaluate how the scientific method was employed.

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Outcome and Student Work Examples

- Biology Outcome: synthesize a cogent argument in the language of science
- Biology Evidence: lab reports written in style of scientific journal
- Ethics Outcome: identify and analyze real-world ethical problems or dilemmas and identify those affected by the dilemma.
- Ethics Evidence: essay assignment which demonstrates analysis of a real-world problem and its consequences for various groups of people.

Activity 2: develop assignments connected to a learning outcome

State a learning outcome for your course

Imagine a homework or in-class exercise that allows students to practice the outcome

Describe a second assignment that reinforces or promotes more in-depth student development of the outcome (ex. term paper)

How will you assess achievement of the outcome (exam questions, essays, term papers)?