

Goals, Objectives, Outcomes

There are four (or three, depending on how you count the last two) parts to the Assessment Plan of a course:

- Definition of the learning GOALS
- Identification of at least one learning OBJECTIVE for each goal
- Definition of a measurable OUTCOME for each objective
- Identification of a process for measuring each outcome

The goals for each component of the Core are defined in the Core document. The Objectives are the domain of the Core committees. (You!) Outcomes will come from instructors and are course-specific.

Goals

“A learning goal is a *general or broad statement* of content, level knowledge, skills, and/or values that faculty expect students to possess upon completion of a specific course, or for which students have measure growth or change at the end of a course.” [From “Glossary of Assessment Terms, Carol Giancarlo Gittens, emphasis mine] The goals proscribed for the STS component of the Core are, in shorthand, Science and Technology, Scientific Inquiry, Complexity, and Critical Thinking. The first two fall in the broad category of “Knowledge” and the second two in “Habits of Mind and Heart.” As defined in the Core document:

Knowledge. To be prepared for well-informed engagement in society, students must comprehend what has shaped the world they have inherited, the evolving ways of understanding it, and how they might transform it for the better. To that end, the Core deepens students’ knowledge of the most profound ideas and ways of knowing that emerge from the arts, humanities, and natural and social sciences. Students develop a greater understanding of:

Science and Technology: The formative influences, dynamics, social impacts, and ethical consequences of scientific and technological development.

Scientific Inquiry: The principles of the scientific method and how they are applied in the natural and social sciences.

Habits of Mind and Heart. To contribute to a rapidly changing, complex and interdependent world, students must develop ways of thinking, feeling, and acting that allow them to educate themselves for the rest of their lives with passion and purpose. By attending to the cognitive and affective dimensions of human experience, the Core enables students to think more deeply, imagine more freely, and communicate more clearly. Students learn:

Complexity: An approach to understanding the world that appreciates ambiguity and nuance as well as clarity and precision.

Critical Thinking: The ability to identify, reflect upon, evaluate, integrate, and apply different types of information and knowledge to form independent judgments.

Objectives

“A learning objective is a *specific and detailed statement* of content, level of knowledge, skills, and/or values that faculty expect students to possess upon completion of a specific course, or for which students have measure growth or change at the end of a course.” [From “Glossary of Assessment Terms, Carol Giancarlo Gittens, emphasis mine] An object takes the form similar to “Students will <verb> <topic>.” Examples:

“Students will be able to apply the Heisenberg Uncertainty Principle.”

“Students will be able to interpret atomic orbital diagrams for Hydrogen.”

“Students will be able to compare different models of the nucleus.”

An excellent source of the kind of verbs that work well is Bloom’s Taxonomy, which I have attached.

Template

A template for the goals and objects part of the STS document might look like this:

GOAL: Science and Technology. Students develop a greater understanding of the formative influences, dynamics, social impacts, and ethical consequences of scientific and technological development.

Objective: Students will <verb> <topic>

GOAL: Scientific Inquiry. Students develop a greater understanding of the principles of scientific inquiry and how they are applied.

Objective: Students will <verb> <topic>

GOAL: Complexity. Students learn an approach to understanding the world that appreciates ambiguity and nuance as well as clarity and precision.

Objective: Students will <verb> <topic>

GOAL: Critical Thinking. Students learn the ability to identify, reflect upon, evaluate, integrate, and apply different types of information and knowledge to form independent judgments.

Objective: Students will <verb> <topic>