Setting Course Goals

In order to move beyond overly vague or content-mastery goals, a useful technique is to focus on answering the question, **"What do I want my students to be able to *do* when they are done with my course?"** If this question is answered thoughtfully and realistically, the goals that you have set for your students will provide a road map for developing an innovative course that helps students achieve those goals. Assessment then falls out naturally from the desire to determine whether students have met the goals.

What do *you* do as a professional in your discipline?

One very useful way to begin to approach setting student-focused goals is to think about what sorts of things *you* do simply because you are a professional in your discipline, because **your course should enable your students, at the appropriate level, to *do* what you do in your discipline, not just expose them to what you know**.

Think about one course that you are likely to teach: the Introductory Geosciences course. In the context of this general course topic, what do *you* do simply because you are a professional in your discipline? What does "analyze", "evaluate", etc. actually involve? Alternatively, what is unique about your world view or the view of your discipline?

Your ideas:

The difference that setting student-focused, overarching goals makes

Let's think about a course in environmental geology:

Teacher-focused goal:

- Provide students with an introduction to the geology of environmental issues and geologic hazards.

Thinking about this environmental geology course as a survey course points us inevitably down the path of presenting material to students, exposing students to a series of examples, and so forth.

Student-focused goal:

- Enable students to assess the hazard potential of an area and take that into account when choosing a piece of property for purchase; ***or***
- Evaluate the validity of a news report related to the environment; ***or***
- Prepare a scientifically sound argument on a local environmental issue to present at a town forum or in a town newspaper.

Thinking about the course as enabling students to *do* something in the future points us down a very different path, **one where we would need to design a course that prepares students to do something *significant*** on their own after the course is over.

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Practice in critical evaluation of overarching goals

It's often difficult to start thinking in a new way about course goals. Below are several sample goals. For each, consider the following:

- Is the goal student-focused, rather than teacher-focused?
- Does the goal focus on higher order thinking skills (e.g. *derive, predict, analyze, design, interpret, synthesize, formulate, plan, correlate, evaluate, create, critique* and *adapt)*?
- Could you design an activity/assignment that would allow you to determine whether students have met the goal or not (does the goal have "measurable outcomes")?
- Is the goal concrete, rather than vague and abstract?

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1. I want students to appreciate the awesome power of Nature.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

2. I want students to understand the scientific method.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

3. I want students to be able to describe the seven major disasters covered in the course and explain the geologic processes involved in the disasters.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

4. I want students to be able to evaluate old hypotheses in light of new data.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

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More practice...

5. I want students to be able to understand why geologic catastrophes happen in some places but not in others.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

6. I want students to be able to identify rocks and minerals.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

7. I want students to be able to apply geologic knowledge to municipal planning and land use decisions.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

8. I want students to be able to analyze historical and geologic records in an area and predict the likelihood of future natural disaster events.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

9. I want students to be able to go up to an unfamiliar outcrop, ask appropriate questions, make observations and collect data, analyze their observations and data, make interpretations, and make decisions about where to proceed next in the field.
   - Student-focused?
   - Higher order thinking skills?
   - Measurable outcomes?
   - Concrete, rather than vague and abstract?

   Could you re-phrase?

Set one to three overarching goals for your course

What do you want your students to be able to *do* when they are done with your course? Several months down the road? Next year? Five years from now? As you write your goals, keep the following in mind:

- **Factor in context.** Who are your students, and what do they need? Remember what you wrote on course context for the tasks in Part 1.1of this tutorial!
- **Factor in what *you do* as a professional.** Remember the list that you made in Task 1.2b above.
- **Set student-focused goals.**
- **Phrase your goals as** *"Students will be able to…"* or "*I want students to be able to…"*.
- **Avoid phrases such as** *"I want to expose students to…"* or *"I want to show students that…"*. Don't fall into the trap of writing a goal that says *"I want students to be able to be exposed to…."!*
- **Set goals involving higher order thinking skills.**
- **Use verbs that signal higher order thinking skills**, such as *derive, predict, analyze, design, interpret, synthesize, formulate, plan, correlate, evaluate, create, critique* and *adapt*.
- **Avoid verbs that signal lower order thinking skills**, such as *list, explain, calculate, know about, identify, describe, recognize, summarize, discuss, define, recall, paraphrase*, and *locate*.
- **Set goals that are concrete, have measurable outcomes, and provide clear direction for course design.**
- Avoid verbs such as *understand, appreciate, value*---they are hard to assess!
- Remember that there is no one right set of overarching goals for a course. Different instructors with different students will likely have different goals or phrase goals differently even if the course is on the same topic.

For now, start with the specific: from the first page, **What is one specific analysis/activity that you do in pursuit of your research goals?**

Can you **re-write the above** as a course goal for an introductory course?