

Questions for Formulating Significant Learning Goals

"A year (or more) after this course is over, I want and hope that students will _____."

Remember why order of operation is important and be able to solve equations correctly.

My Big Hairy Audacious Goal (BHAG) for the course is:

Learners will understand the importance of mathematical notation and order of operation and be able to apply it correctly.

Foundational Knowledge

- What key information (e.g., facts, terms, formulae, concepts, principles, relationships, etc.) is/are important for students to understand and remember in the future?
- What key ideas (or perspectives) are important for students to understand in this course?

Mathematical notation and operators

How order of operation affects answers

Reasoning behind the need to have a uniform, agreed-upon mathematical operation

Application Goals

- What kinds of thinking are important for students to learn?
 - ◆ Critical thinking, in which students analyze and evaluate
 - ◆ Creative thinking, in which students imagine and create
 - ◆ Practical thinking, in which students solve problems and make decisions
- What important skills do students need to gain?
- Do students need to learn how to manage complex projects?

Practical thinking primarily, but I've tried to approach the topic so it involves some critical and creative thinking.

Integration Goals

- What connections (similarities and interactions) should students recognize and make...:
 - ◆ Among ideas *within* this course?
 - ◆ Among the information, ideas, and perspectives in this course and those in other courses or areas?
 - ◆ Among material in this course and the students' own personal, social, and/or work life?

Connection between language and mathematical notation (a group of symbols we agree have meaning)

Human Dimensions Goals

- What could or should students learn about themselves?
- What could or should students learn about understanding others and/or interacting with them?

Importance of communication and finding common ground? I dunno, that seems like a bit of a stretch.

Caring Goals

- What changes/values do you hope students will adopt?

Feelings?

Interests?

Values?

"Learning-How-to-Learn" Goals

- What would you like for students to learn about:
 - ♦ how to be good students in a course like this?
 - ♦ how to learn about this particular subject?
 - ♦ how to become a self-directed learner of this subject, i.e., having a learning agenda of what they need/want to learn, and a *plan* for learning it?

*That they **can** learn these concepts and they are approachable from a variety of perspectives.*