Fundamentals of Course Design I: Developing Learning Goals

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Workshop Goals

• Upon successful completion of this workshop, you will be able to:
  – Understand and appreciate the importance of goal-directed course design
  – Articulate learning goals for a variety of courses

• You will leave with learning goals for a future course
Backward Design

1. Identify Desired Results.

2. Determine acceptable evidence.

3. Plan learning experiences and instruction.

Big Ideas and Skills

Culminating Assessment Task

Learning Events

Integrated Course Design

- Learning Goals
- Teaching & Learning Activities
- Feedback & Assessment

Getting Started

• “What big questions will my course help students answer, or what skills, abilities, or qualities will it help them develop and how will I encourage my students’ interest in these questions and abilities?”

Big Questions

• What questions should students be able to answer or think about more effectively by the end of your course?
Big Question Examples

• Introduction to Chemistry
  – How can everything we know of in the world be made from less than 125 elements? How do those elements connect and interact with each other?

• American Women’s History (UNC History Dept)
  – What makes American women’s experiences distinct from men and from one another? How have women contributed to the development of the United States?

• Food & the Brain (Notre Dame PSY dept)
  – What happens in your brain when you eat a piece of chocolate? Why might you eat more when you are stressed out? How do these processes differ across individuals?
Learning Goals

– What do we want the students to accomplish in the course?
– How do we want our students to be different after this course?
Why Articulate Learning Goals?

• Identify the most important outcomes for the course
• Keep the course focused
• Form the basis for designing assessments/assignments
• Add transparency for the students
  – Improves student performance
• Decrease time spent responding to student work
When Writing Student Learning Goals

• Use specific language
  – Students will be able to
    • Describe, Analyze, Argue, Solve, Create, Compare, etc.

• Avoid vague or passive language
  – Goals of knowing and understanding are valuable but vague
    • What would a student do to demonstrate their knowledge/understanding?
  – Avoid passive language such as “Students will be exposed to...”
Learner-centered

• “Upon successful completion of this course, you will be able to”

• Try focusing on the following:
  – Knowledge
  – Skills
  – Attitudes
Example: Introduction to Chemistry

Upon successful completion of this course, you will be able to:

– predict simple chemical formulas and geometries.
– understand the reasoning for the periodic table’s structure as well as be able to predict trends involving ionization energies, electron affinities, and other chemical properties.
– describe and be able to solve problems involving the ideal gas law and simple thermodynamic relationships.
Example: Food & the Brain

• Upon successful completion of this course, you will be able to:
  – explain the function of brain circuits in normal and pathological feeding behavior; describe current scientific evidence for the role of the central nervous system in the control of food intake.
  – read and analyze primary scientific literature; critique and evaluate that literature orally and in writing.
  – draw and communicate connections between principles learned in this class and your own eating behaviors
Example: American Women’s History

• Upon successful completion of this course, you will be able to:
  – understand how individuals are shaped by their own past and by the past of their society and institutions; describe the operations of large-scale forces responsible for causing change over time, such as politics, economics, and religion.
  – read and understand a variety of literary forms, including primary (diplomatic correspondence, journalistic reports, and private papers) as well as secondary sources (academic prose); analyze and construct cause-and-effect relationships from disparate data sources.
Measurability

- Part of any course involves assessing students in order to assign grades and provide feedback.
- It can be helpful while determining your learning goals to consider the assessment methods you are planning on employing
  - “Predict simple chemical formulas and geometries” could be tested simply with multiple choice, or require greater thought by the students, if they must generate appropriate structures.
  - “Read and analyze primary scientific literature; critique and evaluate that literature orally and in writing”
Balanced Course Design

Learning Goals

Teaching & Learning Activities

Syllabus

Feedback & Assessment

Helpful Resources


  – A Self-Directed Guide to Designing Courses for Significant Learning
