## Developing Student Learning Goals and Outcomes

(through an accountability lens)

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# Let's start off with a few assumptions:

Assessment is a regular on-going expectation of instruction.

It's something we do all the time.

Assessing student learning is not the burden.



## What is the burden?

**ACCOUNTABILITY** 



# Expectation associated with accountability

Document the program's efforts at assessing student learning.

## Documenting student learning assessment

A <u>formal</u> process that is <u>representative</u> of the program's student-learning assessment:

- Articulate student learning goals and outcomes,
- 2. Develop an assessment plan,
- 3. Conduct regular on-going formal assessments,
- 4. Employ best practices,
- 5. Demonstrate continuous improvement, and
- 6. Share/communicate with others.



## **Outcomes-based Approach**

Start with a learning goal

Develop learning outcomes that provide evidence of goal achievement

# Example (non-academic)

Goal: To have a strong economy.

Outcomes (economic indicators):

- 1. Unemployment rate
- 2. Gas prices
- 3. Housing starts
- 4. DOW
- 5. Consumer confidence



# Example (academic)

Goal: Students will understand chemistry.

### Learning Outcomes:

- Students will <u>apply</u> chemistry concepts to solve problems.
- 2. Students will <u>explain</u> chemical principles.
- Students will <u>describe</u> chemical phenomena at the molecular level.



## Assessment Plan

(over the course of 5 years)

Outcome	When	Where	Instrument
Apply concepts	F 20-24	CHEM 120	Prob. Set/Final
A VE 5			
Explain principles	S 21-25	CHEM 254	Chapter Exams
Describe phenomena	S 22, 24	URSCI	Rubric



## What About . . .

the other goals that we did not formally articulate?



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Include them as part of a vision statement separate from the formal articulated student learning goals.



### **Chemistry Program**

#### **Vision Statement:**

The Chemistry program seeks to transform the student experience by integrating teaching, research, and professional development across the curriculum. In addition to fostering intellectual growth, the program strives to develop in students the research and communication skills necessary for a STEM career.

### Student Learning Goal:

Students will understand chemistry concepts.

#### **Outcomes:**

- 1. Students will apply chemistry concepts to solve problems.
- 2. Students will explain chemical principles.
- 3. Students will describe chemical phenomena at the molecular level.



## Takeaways for Formal Student Learning Assessment

- 1. Should be representative, not comprehensive.
- 2. Don't dig yourself into an assessment hole.
- The assessment should provide useful/valuable information to improve student learning.
- 4. Low-hanging fruit is a good way to go as long as #3 remains valid.