

Writing Effective Learning Outcomes

or How I Learned to Stop Stressing and Love Assessment

Learning Outcomes & How to Write Them

A collaboration between

Center for Excellence in
Teaching & Learning and

Office of Assessment &
Institutional Effectiveness

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Overview

Agenda

- ▶ Brief Assessment Review
- ▶ Program-level Learning Outcomes
- ▶ Curriculum Mapping

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Workshop Learning Outcomes

- ▶ Participants will write program level learning outcomes that are specific, measurable, attainable, relevant, and time-focused (SMART).
- ▶ Participants will be able to appraise usefulness of current program level learning outcomes to determine student learning.
- ▶ Participants will learn how to map student learning outcomes in a curriculum to maximize student success.

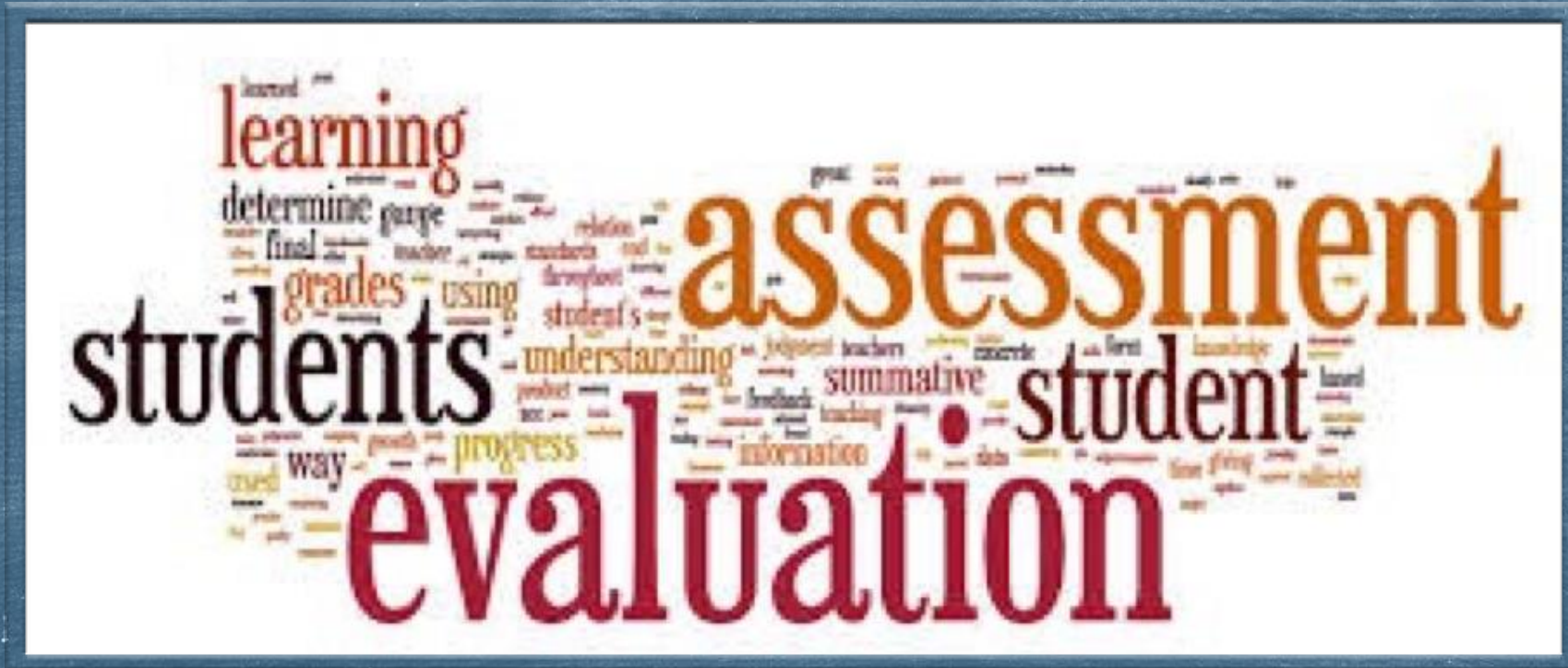
Pre-Poll Question

How would you describe your program's learning outcomes?

- a. We have a long way to go
- b. We are on the right path
- c. We are where we need to be

Activity

One word or picture to describe how I feel about assessment



Assessment Jargon

Language is Important

Terms	Other terms for same concept
Educational Objectives	Goals, outcomes, purpose, etc.
Learning Outcomes	Goals, objectives, competencies, standards, etc.
Performance Indicators	Performance criteria, standards, competencies, rubrics, specifications, metrics, outcomes, etc.
Assessment	Evaluation
Evaluation	Assessment

**For me: objectives = intentions
outcomes = results**

Assessment is ...

- ▶ Discovering what students are learning
- ▶ A process, not an action or activity, in which the improvement of learning supersedes self-justification or reporting as a goal.



Why Assessment?



1. Student Learning
(transparency)
2. Program Improvement
(quality)
3. Accreditation Compliance
(accountability)

Why is this important?

INSIDE
HIGHER ED

Challenges of an Accreditor Crackdown

One of the department's goals, Under Secretary of Education Ted Mitchell said last week, is to signal to accreditors "that we're paying attention" to student outcomes and that they are "going to matter."

November 17, 2015

By **Michael Stratford**

https://www.insidehighered.com/news/2015/11/17/education-department-faces-challenges-cracking-down-college-accreditors?utm_source=Inside+Higher+Ed&utm_campaign=9802823de8-DNU20151117&utm_medium=email&utm_term=0_1fcbc04421-9802823de8-198403345

Student Learning Outcomes

Otherwise known as “Why You Are Here This Morning”

Activity

Program/Department Mission Satisfaction Survey

The Assessment Cycle

1. Mission & Learning Outcomes
2. Mapped Curriculum & Learning Opportunities
3. Methods of Data Collection
4. Analysis of Results
5. Action Taken to Improve Student Learning



Three Levels of Student Learning Outcomes

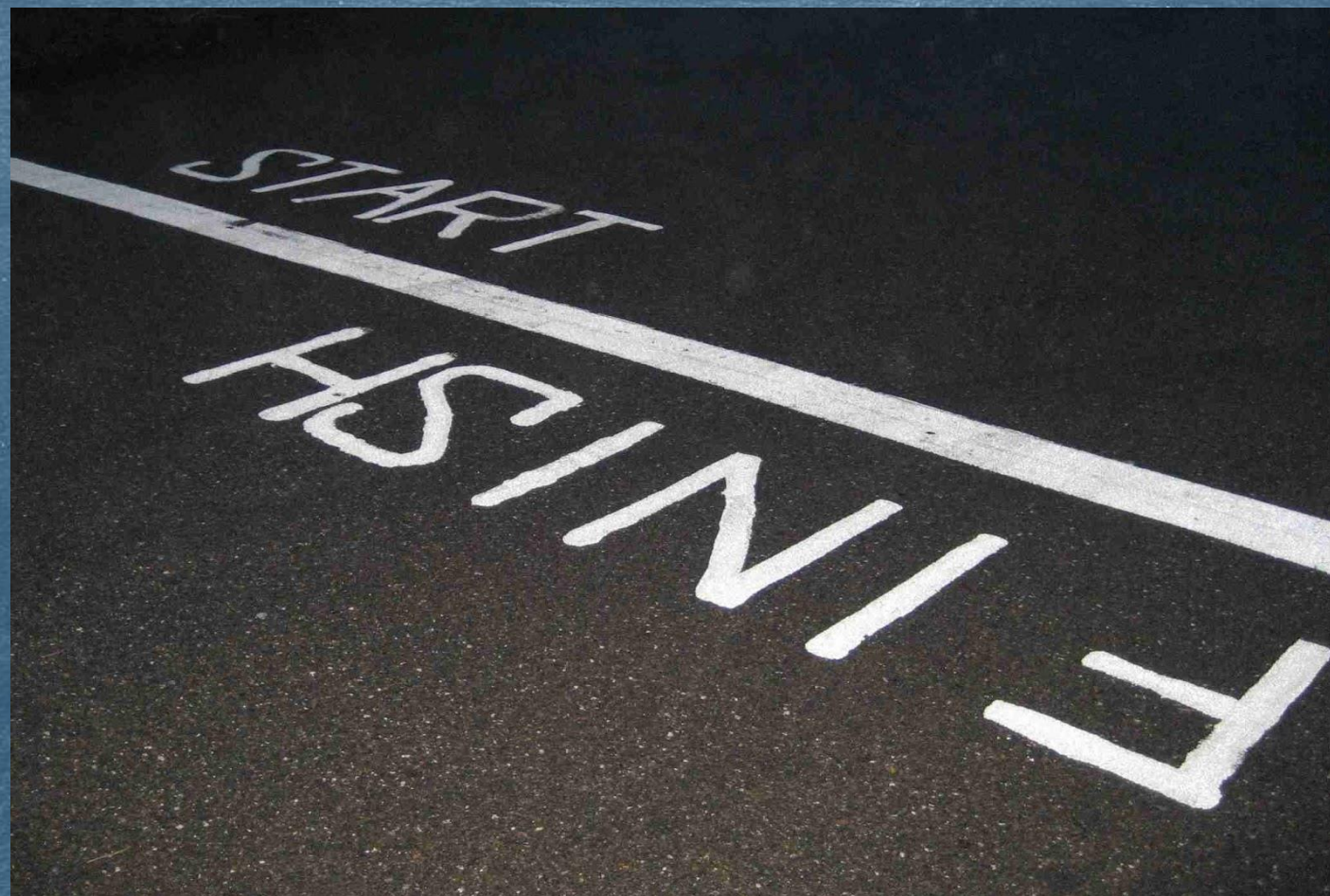
- ▶ Course
- ▶ Degree program – discipline-based
- ▶ Institution – core outcomes, “general education,”
common learning across all degrees

Why Have Learning Outcomes?

Three main benefits to well-defined goals and outcomes:

- ▶ Goals and outcomes are the foundation for assessing student learning at all levels of the institution.
- ▶ Faculty and staff can use clear learning outcomes to guide all instruction and programs.
- ▶ Students can refer to learning outcomes to understand what is important to learn.

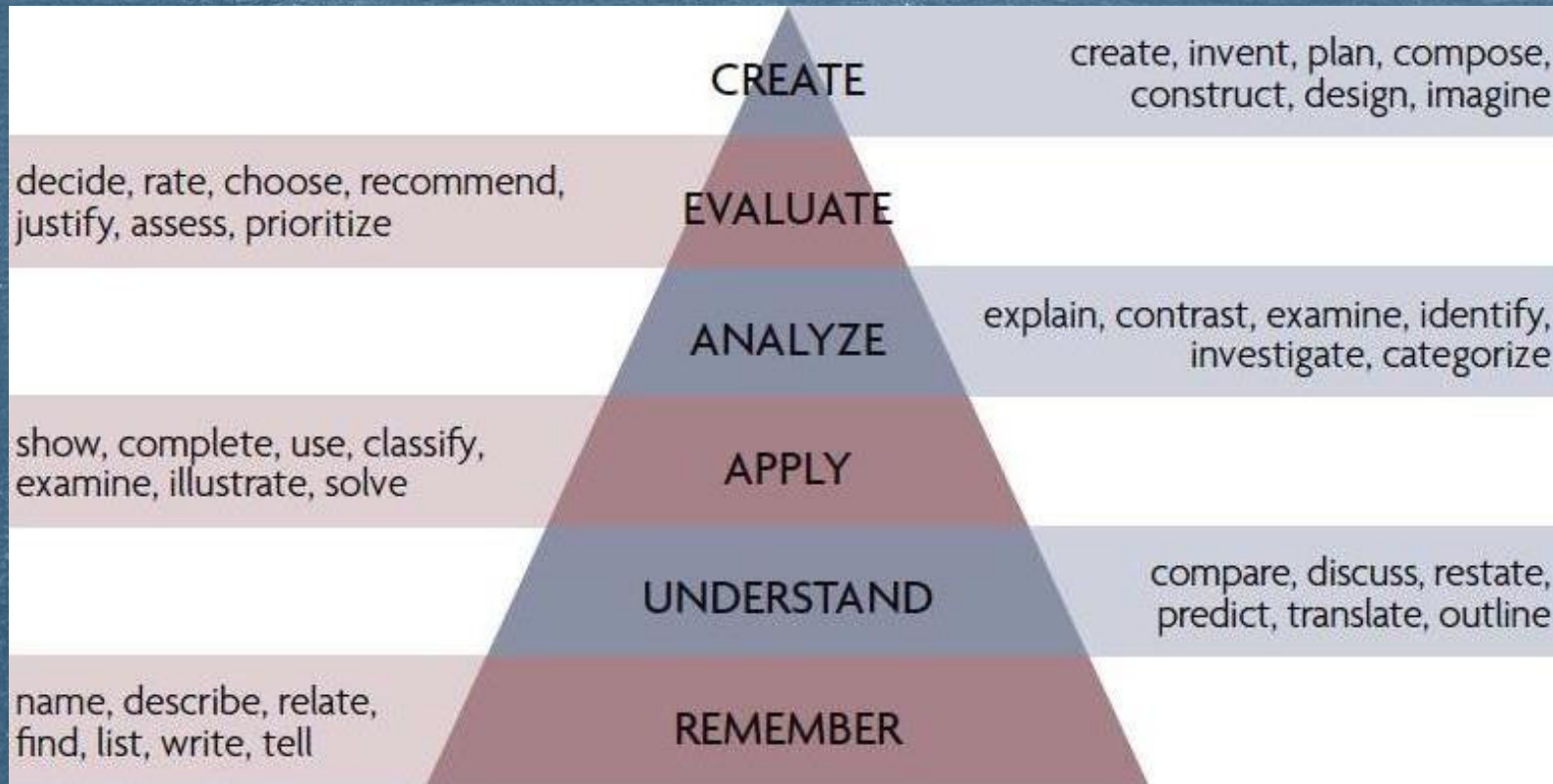
Start with a Graduate in Mind



Focusing on What's Important: Learning Outcomes as Opposed to Topics

- ▶ State *expectations* of knowledge, skills, abilities, or dispositions demonstrated by the ideal student graduating from your program.
- ▶ Describe what a student can *do* with what s/he knows.
- ▶ Focus on *lasting* results of courses, programs, missions.

Good Outcomes



- ▶ Use appropriate levels of Bloom's taxonomy
- ▶ Consider differences in kind among courses, program, and institutional outcomes
- ▶ Concentrate on the ways in which a student **uses** knowledge to function cognitively and/or affectively

Components of a Learning Outcome Statement

- ▶ SLOs should clearly indicate the level and type of competence that is required of graduates of a program. The following information should be included in a well-defined learning outcome statement.
 - ▶ Areas/fields that are the focus of the assessment
 - ▶ Knowledge, abilities, values and attitudes that a student in your program is expected to have within that area/field
 - ▶ Depth of the knowledge, abilities, values and attitudes expected of a student in your program

Writing Outcomes Statements

Learning Outcome Statements can be broken down into four main components

- A **stakeholder** who will demonstrate the outcome.
- An **action word** that identifies the performance to be demonstrated;
- A **learning statement** that specifies what learning will be demonstrated in the performance;
- A broad statement of the **criterion** or standard for acceptable performance

Stakeholder (usually the student)	Action Word (performance)	Learning Statement (the learning)	Criterion (the condition of the performance demonstration)
The student	Applies	Principles of asepsis	When executing psychomotor skills
The student	Produces	Documents	Using word processing equipment
The candidate	Analyzes	Global and environmental factors	In terms of their effects on people

Activity

AKA: Reason for BYOD

Activity: Write a Student Learning Outcome

STAKEHOLDER (usually the student)	ACTION WORD (performance)	LEARNING STATEMENT (the learning)	CRITERION (the conditions or level of the performance demonstration)
The student			
The candidate			
The graduate			

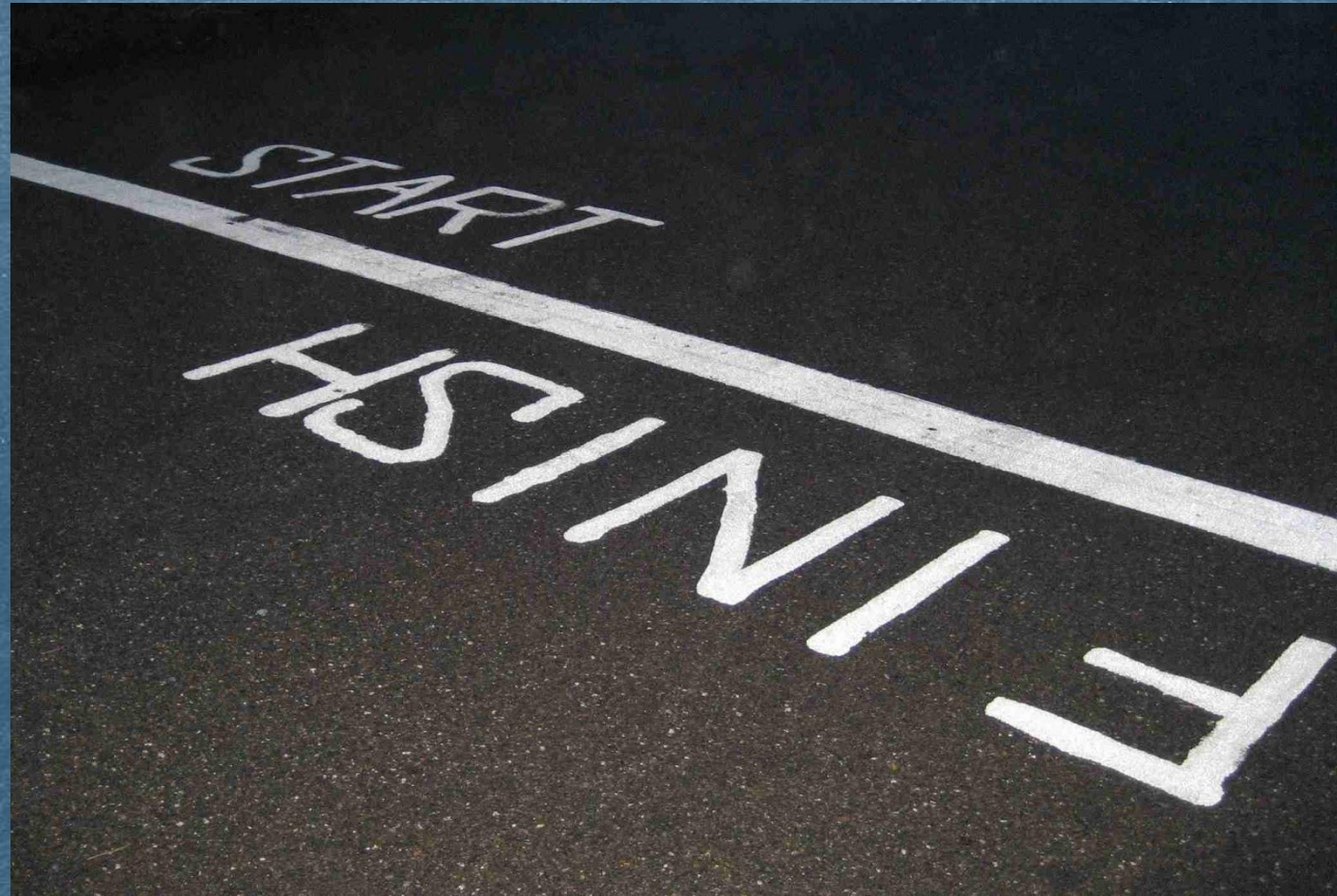
Curriculum Mapping

Why you need strong learning outcomes

Outcome-based Curricula

- ▶ Standard approaches to curriculum are essentially topic-based and –sequenced
- ▶ Sometimes curricula are more reflective of faculty research interests than of desired outcomes
- ▶ Planning in the context of the outcome, rather than the sequence of topics, requires reverse engineering

Start with a Graduate in Mind



Planning an Outcome-based “Curriculum”

Start at the End
(purpose AND
terminus)

Sequencing
depends not
on topics, but
on outcome
development

1. What should a graduate/completer be able to do after leaving this experience?
2. How can that ability be developed?
3. How can we be sure that it is developing?

Topical Maps and Outcomes

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	X	X		
ET 211			X	X
ET 301		X		
ET 350	X		X	X
ET 495		X		X

Activity

Curriculum Mapping Survey – topic based or curriculum-based

Using Learning Outcomes

Four Essential Questions

1. Where is the outcome taught?
2. Where is it learned?
3. Where is it assessed?
4. How do we know that it is developing over time?

Outcome-based Curriculum Map

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		R
ET 201	I	R		R
ET 253	R			R
ET 310		R		
ET 355				
ET 411	M			
ET 495		M	M	M

I = Introduced

R = Reinforced

M = Mastered

What Does the Map Tell You about ET 355?

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		R
ET 201	I	R		R
ET 253	R			R
ET 310		R		
ET 355				
ET 411	M			
ET 495		M	M	M

How Well Developed Is Outcome 3?

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		R
ET 201	I	R		R
ET 253	R			R
ET 310		R		
ET 355				
ET 411	M			
ET 495		M	M	M

What Might Be Missing in Outcome 4?

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		R
ET 201	I	R		R
ET 253	R			R
ET 310		R		
ET 355				
ET 411	M			
ET 495		M	M	M

How Effectively Planned Is Outcome 1?

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		R
ET 201	I	R		R
ET 253	R			R
ET 310		R		
ET 355				
ET 411	M			
ET 495		M	M	M

How Well Planned Is Outcome 2? How Does It Differ from Outcome 1?

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		R
ET 201	I	R		R
ET 253	R			R
ET 310		R		
ET 355				
ET 411	M			
ET 495		M	M	M

Outcome-based Curriculum Map

Req. Courses	Outcome 1	Outcome 2	Outcome 3	Outcome 4
ET 101	I		I	
ET 120	R	I		I
ET 201		R	R	R
ET 253	R			R
ET 310		R	R	
ET 355	R		R	R
ET 411	M			
ET 495		M	M	M

Applying the Guidelines

In general, if an outcome is important enough to be articulated as a program outcome, it should be:

- ▶ Introduced early in the curriculum, in most cases during the first 25% of required courses
- ▶ Reinforced at least twice in the course of the program
- ▶ Integrated with other outcomes in some sort of culminating activity, like a project, an internship, a clinical experience, or other appropriate experience that approximates the real-world tasks students have to perform after graduation
- ▶ Assessed frequently

Four Essential Questions

- ✓ What do I want my students to carry from my course/program/institution?
- ✓ How does their performance indicate that they have in fact learned what I want them to learn?
- ✓ How do I measure that performance?
- ✓ If there's a gap between what I expect them to learn and what their performance indicates they learned, what do I do?

Questions & Discussion

Post Poll Question

How would you describe your program's learning outcomes?

- a. We have a long way to go
- b. We are on the right path
- c. We are where we need to be