SAN DIEGO STATE UNIVERSITY
Georgia

S SCIENCE T TECHNOLOGY E ENGINEERING M MATH

Quality Assurance as a Tool for Development of Higher Education Institutions

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MILLENNIUM CHALLENGE CORPORATION
UNITED STATES OF AMERICA

Quality Assurance

- Process of preventing mistakes or defects
- Providing confidence that quality requirements will be fulfilled
- Documentation of quality efforts
- Paperwork needed for accreditation

Function of Accreditation

- Validation
- Peer Review
- Relevance of Preparation

- Continued Operation

Changing Views on Accreditation

Standards produced for what _____ need to learn

Pedagogy designed for majors in _____ with those things

Adherence to Standards

QA function compiles documentation that students were taught those things

Evaluators check to make sure that at ___ ___ Uni, they teach _____ those things

Think about the last class you taught…

1. Can you list what you covered?
2. Can you list *what the students learned?*

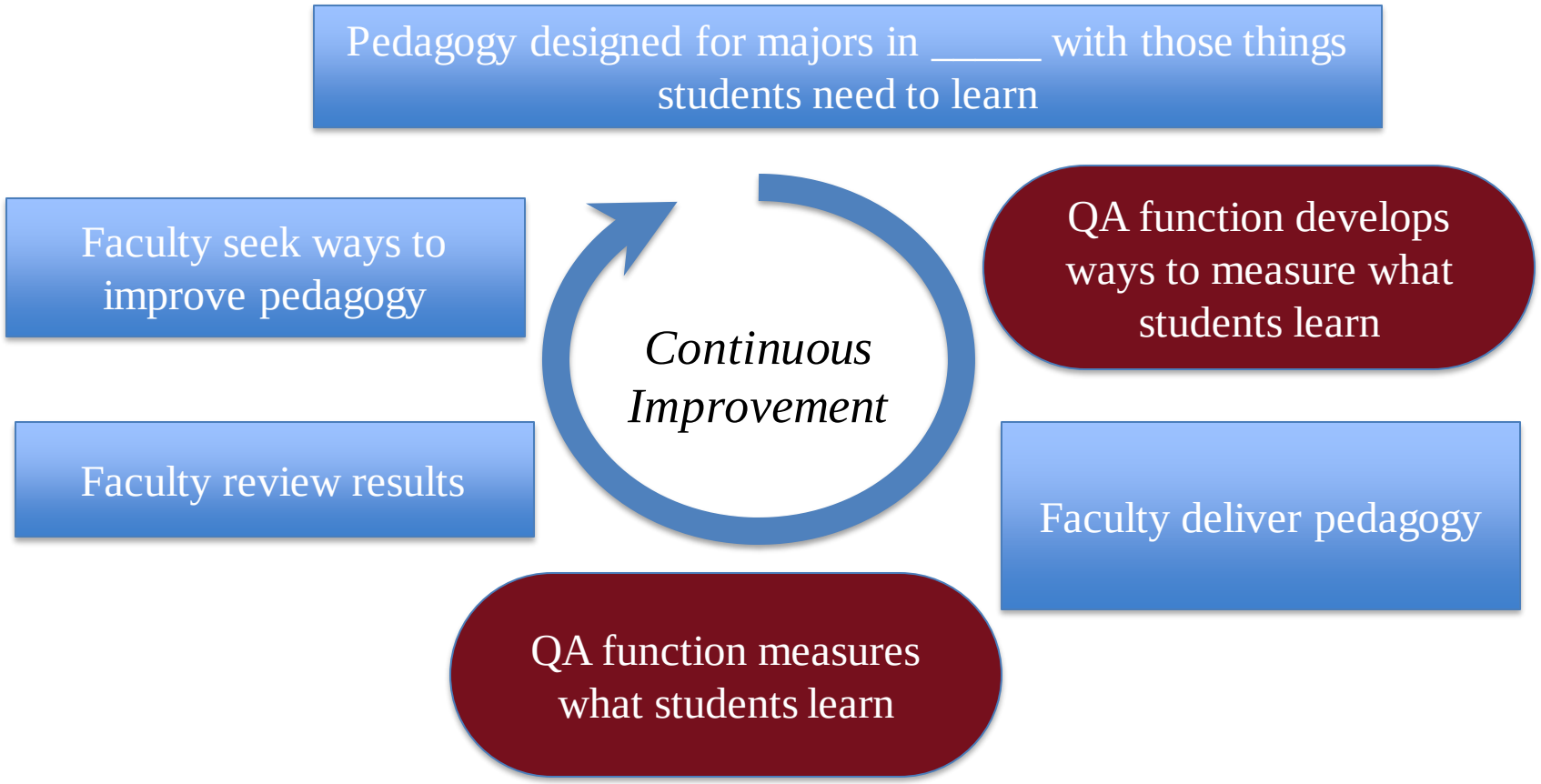
Why is question 1 easier to answer than question 2?

A truism you must accept

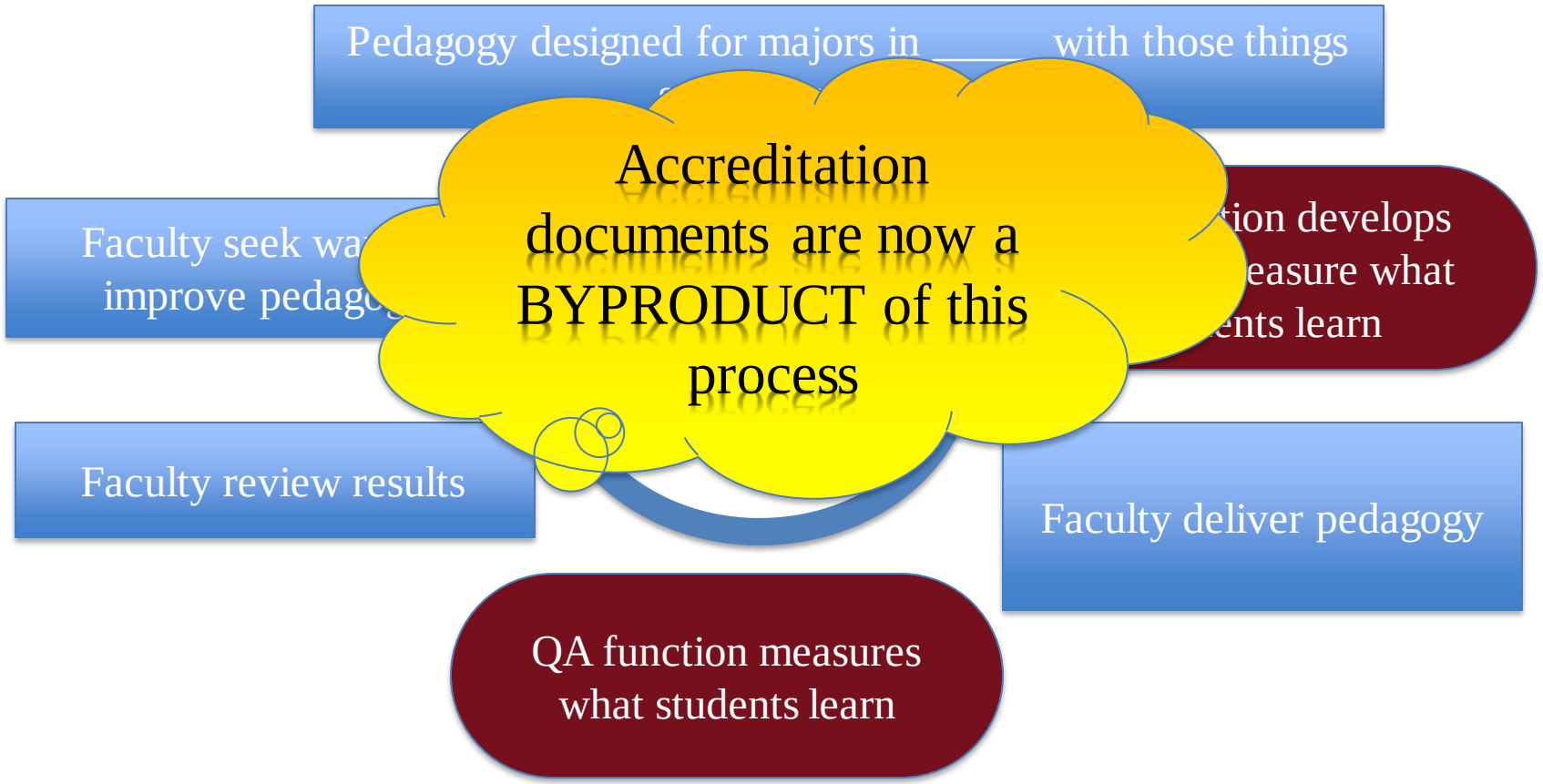
- Even if you don't want to:

- Only a SMALL fraction of people successfully learn from lecture, and
- WE ARE THOSE PEOPLE!!!!!
- So if you hear yourself saying "but I learned just fine from lectures"…
- *that's totally meaningless data*

Changing Views on Accreditation



Changing Views on Accreditation



No Interest in Counting?

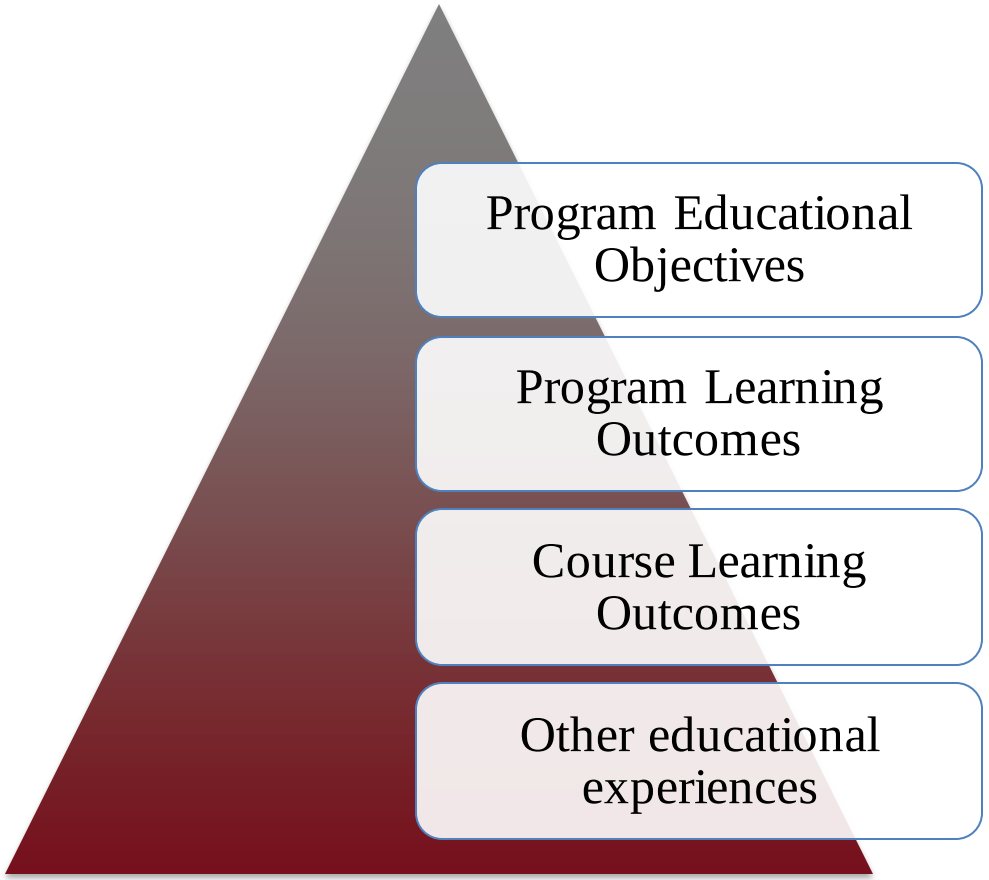
- Admissions
- Equipment
- Funding
- Faculty Qualifications

⋮

- Library Resources
- Facilities
- Administrative Support
- Adherence to Policy

⋮

Outcomes

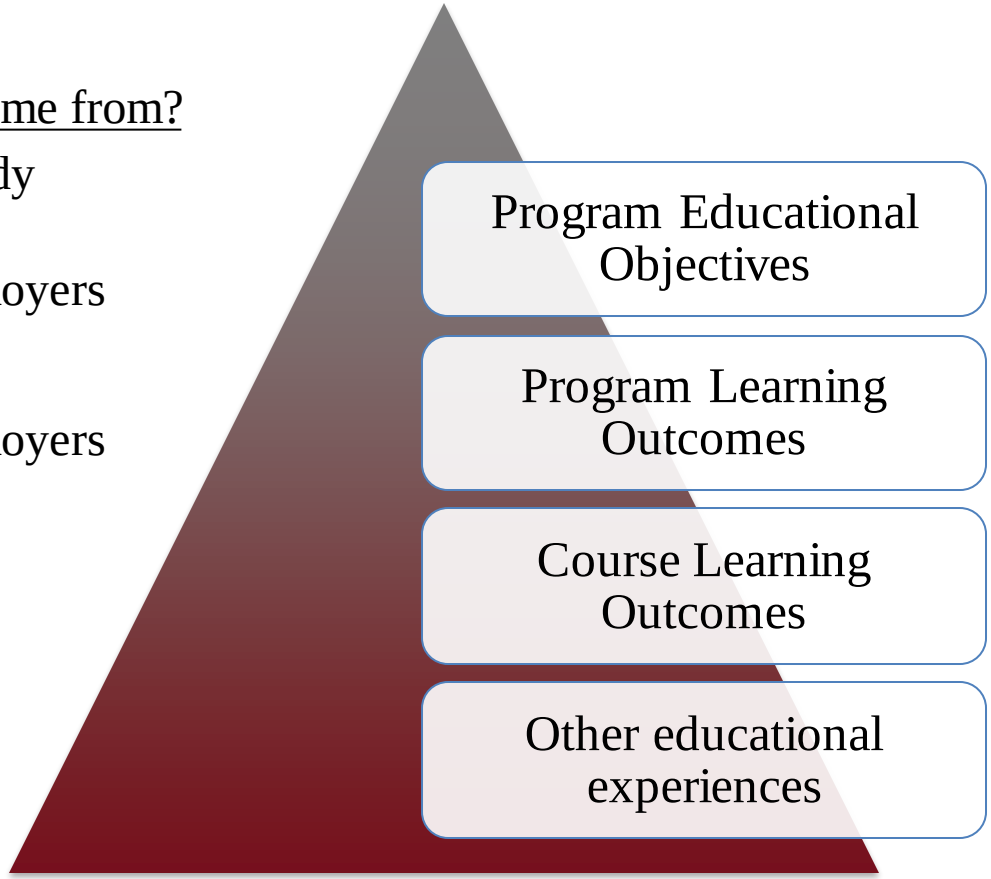

Program Educational Objectives
Program Learning Outcomes
Course Learning Outcomes
Other educational experiences

Defining Terms

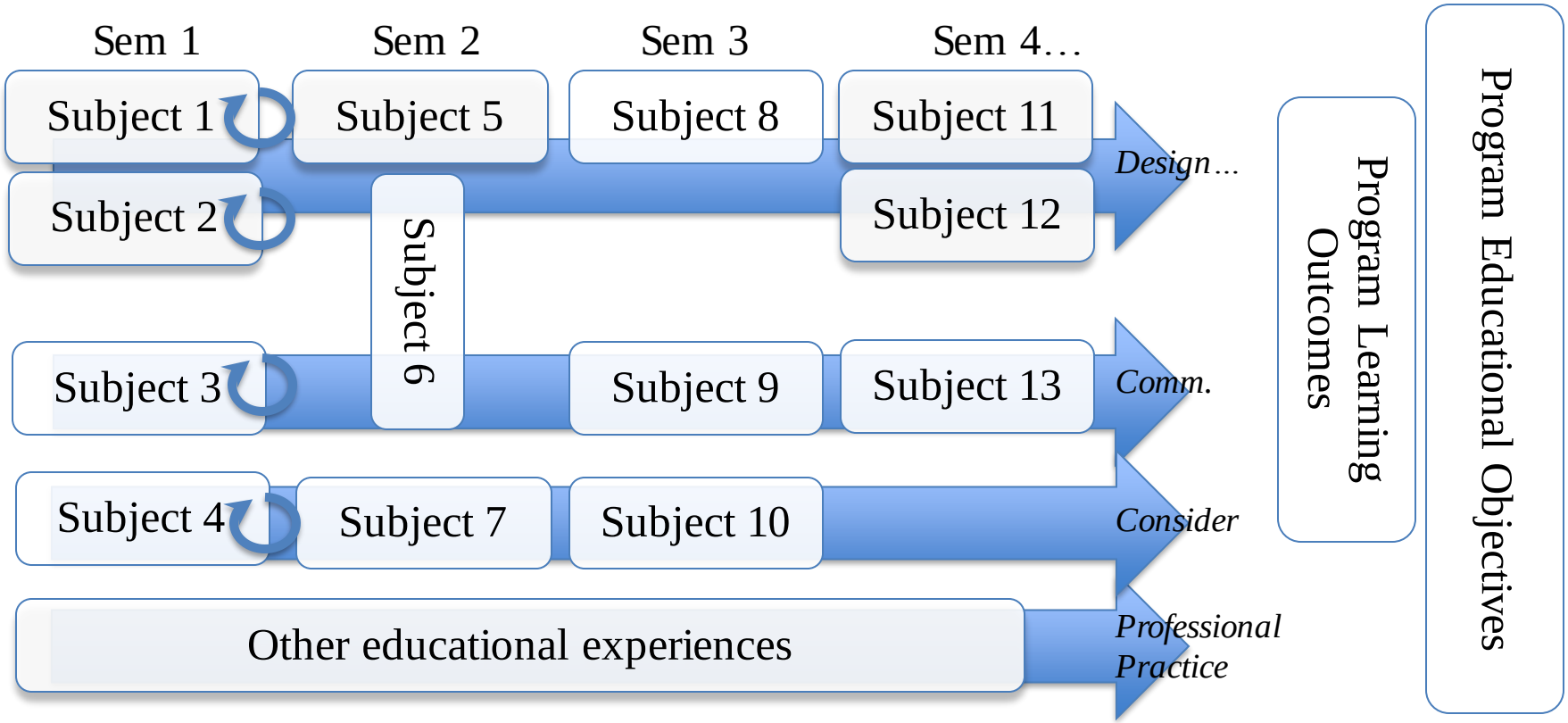
Program Educational Objectives	Program Learning Outcomes	Course Learning Outcomes
Broad statements of capabilities, targeting career development, *a few years after graduation*	More narrow statements of what students should know *and be able to do* by the time of graduation	Even more narrow statements of what students should know *and be able to do* by the end of a course.

Implications

Measurement	Where do they come from?
A few years after graduation	Accreditation Body Faculty Relations to Employers
End of schooling	Faculty Relations to Employers
During/end of course	Faculty
Usually at end of schooling	Faculty



Mapping


Sem 1
Sem 2
Sem 3
Sem 4…
Subject 1
Subject 5
Subject 8
Subject 11
Subject 2
Subject 6
Subject 12
Subject 3
Subject 9
Subject 13
Subject 4
Subject 7
Subject 10
Other educational experiences
Design…
Comm.
Consider
Professional Practice
Program Learning Outcomes
Program Educational Objectives

Strategies for Assessment

- Observation of student work product
- Survey of students' or employers' opinion of student ability
- Evaluation of a Capstone experience

- Direct Assessment
- Indirect Assessment
- Summative Assessment

Course Learning Outcomes

- Required as a part of the syllabus
- Number not mandated, but 5-10, outlined with the major course themes, is typical and usually sufficient

Characteristics

- Succinctly describe student capacities at the end
- **Observable and measurable** manifestations of knowledge, skills, and attitudes
- Attained as a result of the learning process in *this* class

ACTION VERB *Noun Phrase*

Examples

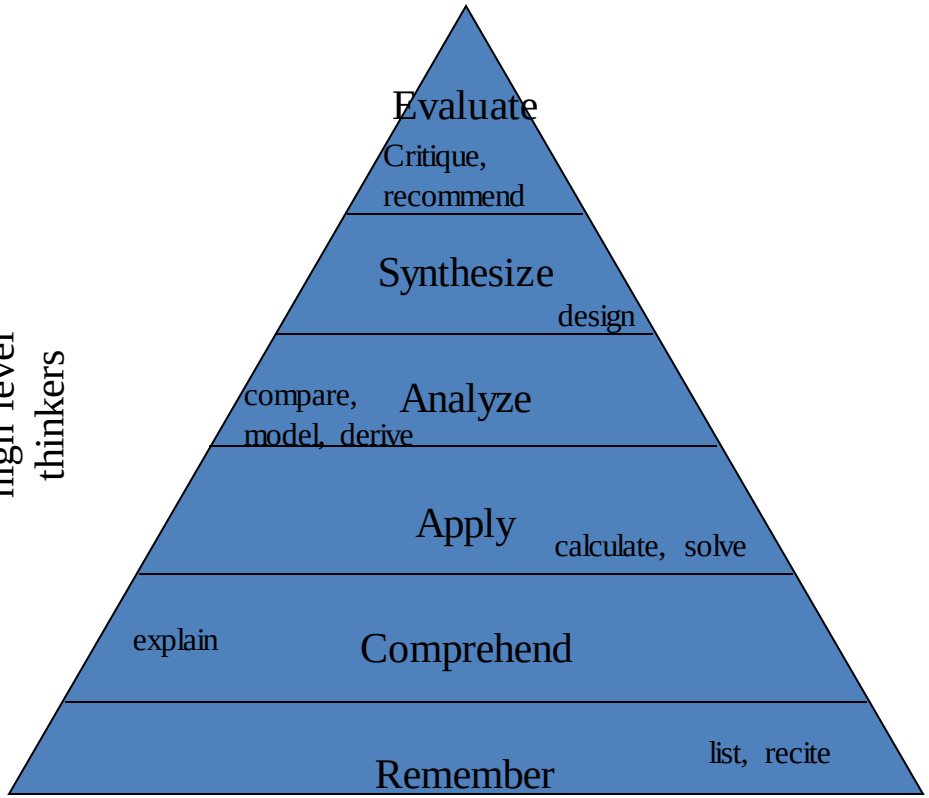
- Classify vertebrate specimens
- Employ metaphors in rhetorical arguments
- Understand Kirchhoff's Current Law
- Explain atmospheric convection
- Predict returns on invested capital

Bloom's Taxonomy of Educational Objectives

Highest level thinking

Educated professionals are high level thinkers

Lowest level thinking



For the cognitive domain

after Anderson et al (2001)

Measurable and Observable

Syllabus Excerpts

Broad Statements of Abstract Intent	Possible Learning Outcome Statements
Students should have a thorough understanding of the statistical margin of error.	You should be able to **describe** and **explain** how the margin of error changes when standard deviation, population size, or confidence interval are altered.
We will explore the influence of traditional, modern, and post-modern perspectives on the role of religion in contemporary American spiritual life.	We will learn to **compare and contrast** the influence of traditional, modern, and post-modern perspectives on the role of religion in contemporary American spiritual life.
Discussion of political issues will encourage open exchanges and tolerance of other views.	During discussions about politics, students will be able to listen to other speakers well enough to: **verbally summarize** the other speakers' views, **seek clarification** from the original speaker, **incorporate clarifications** in a revised summary.

Why outcomes, and why quality culture?

- Research shows student achievement improves when expectations are clear and communicated
- CI enables faculty to achieve better outcomes with same effort
- Fact-based conversations with students and employers
- *Accreditation documents largely become a by-product of assessing and process improvement*

How does change happen?

- Change agents
  - Role of accreditors
  - Role of administration
- Importance of patience
- Personal experience

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