

<http://wlistings.zap2it.com/tv/get-smart/photo-gallery-detail/EP00001826/12906499?aid=zap2it>



**GET
SMART**

GET SMART: DESIGN LEARNING OBJECTIVES FOR YOUR COURSE

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Session objectives:



- Identify a main learning goal for your course
- Identify and describe a learning objective associated with that goal using precise language
- Identify appropriate activities, assignments, and exams that will teach to and test for the learning objective

When planning a course, we typically start with content



We decide what content is going to be covered.

And then...we start by writing a syllabus that tells students when material will be covered, and how we will know it's been covered (assignments, tests).

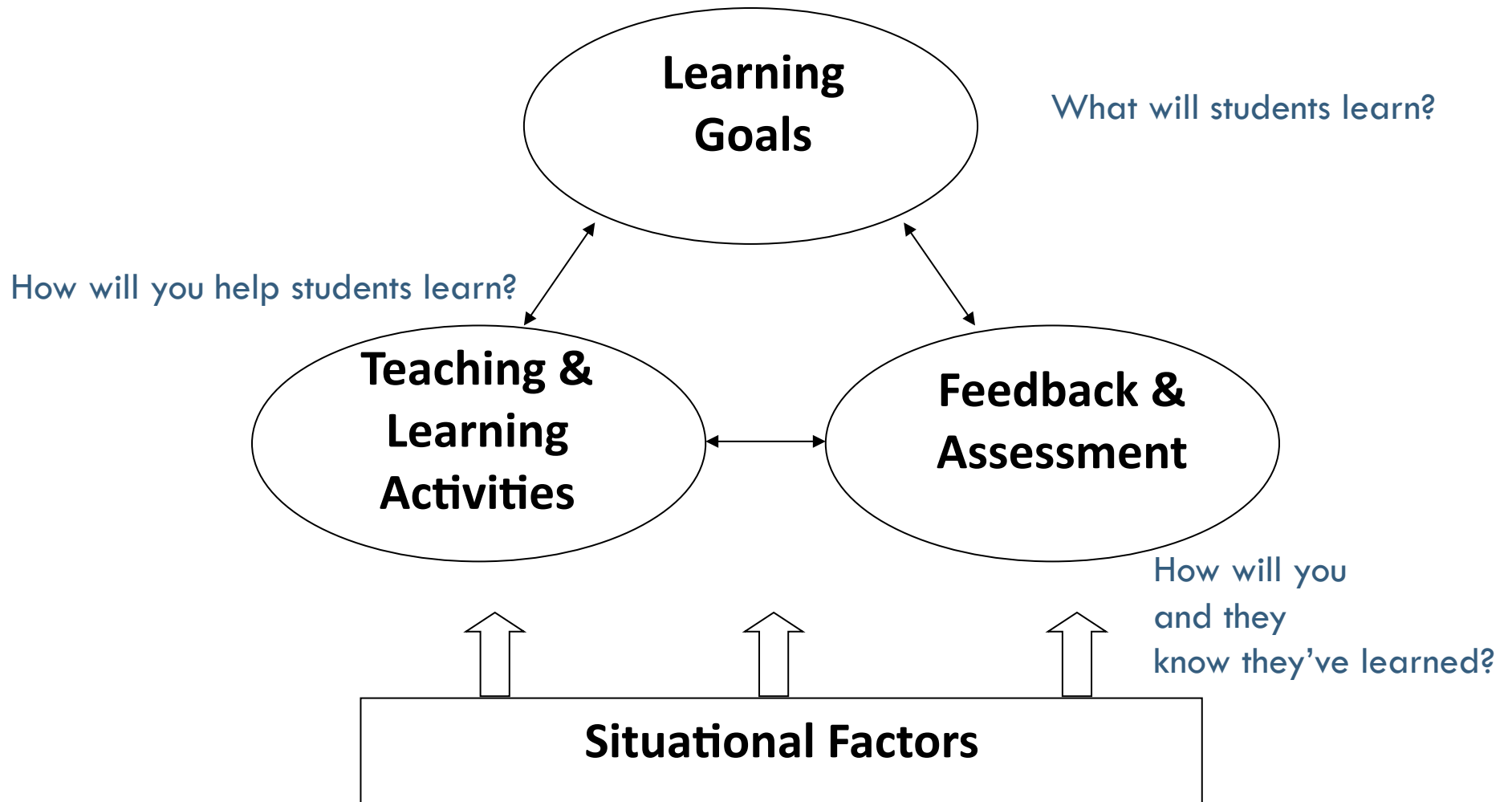
Learning objectives helps you communicate with students and colleagues

- students know what you expect of them
- colleagues know what students learned
- grading is easier for you



<http://alstair.cockburn.us/Cone+of+silence/v/slim>

Learning objectives impact everything you do in a course



Create learning objectives: get SMART



Specific: What will students learn?

Measureable: How will you know if students have learned?


Action-oriented: What results or outcomes will you observe?

Realistic: Are the objectives challenging but realistic?

Time specific: By when will students achieve the objective?

<http://www.sunyorange.edu/assessmentapa/docs/StudentLearningOutcomes.pdf>

Get specific: who are your students and what do they need to learn?



- Majors? Non-majors?
- Prerequisite knowledge
- How does course fit in with department's curriculum?

Get specific: what are your other situational factors?



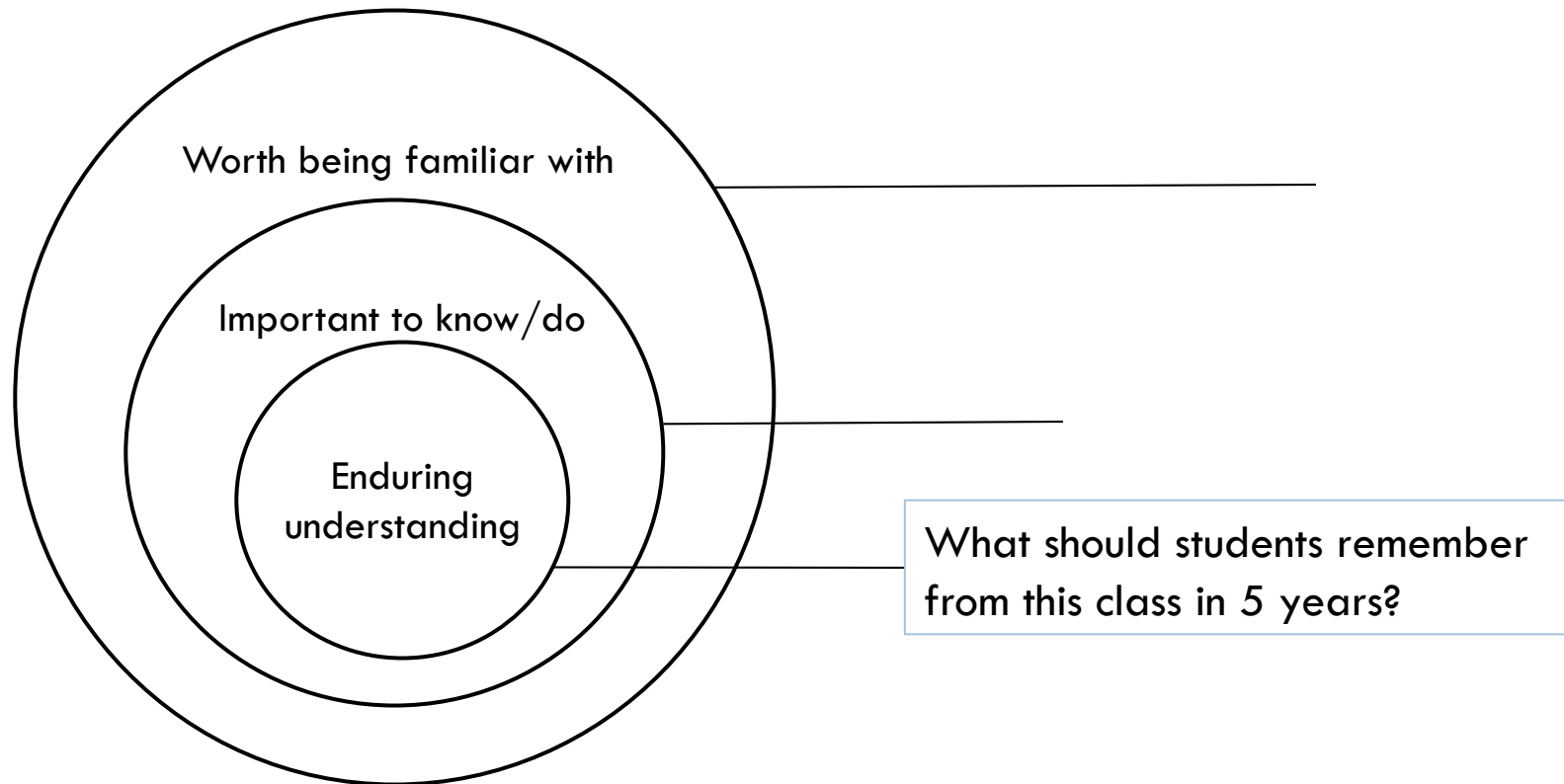
- Hours available for instruction
- Are there TAs?
- What is the nature of the subject?
 - ▣ Does information change rapidly?
 - ▣ Convergent or multiple interpretations?

Get specific: find out about situational factors



- Talk with faculty members who have taught the course
- If a new course, look at textbooks
- If you've taught the course, look at student evaluations for course strengths/weaknesses
- Check to see if there are department/discipline objectives

What do you want students to know/ do by the end of the class?



Adapted from: Establishing Curricular Priorities.

In *Understanding By Design* (p. 10) Wiggins, Grant and Jay McTighe. 1999. Merrill Prentice Hall. Upper Saddle River, NJ.

Examples of goals



- Students will **understand** the process of making a reasoned argument
- Students will **be familiar with** major theoretical approaches in biology
- Students will **think** in the big picture, **pondering** their own place in the Universe
- Students will **learn** mathematical methods of proof
- Students will **be familiar with** the global, ethical, and policy implications of chemical technologies

Get specific: generate a goal



- Pick an aspect of “enduring understanding”: what is something students should remember in 5 years?
- Take 2-3 minutes to describe this as a goal
- Share goals with a partner

What is a goal for your course?



Make it measurable: identifying goals is just one step in the process

Goals are broad statements that provide a target.

Objectives are more specific. They are the concrete steps students take to reach goals.

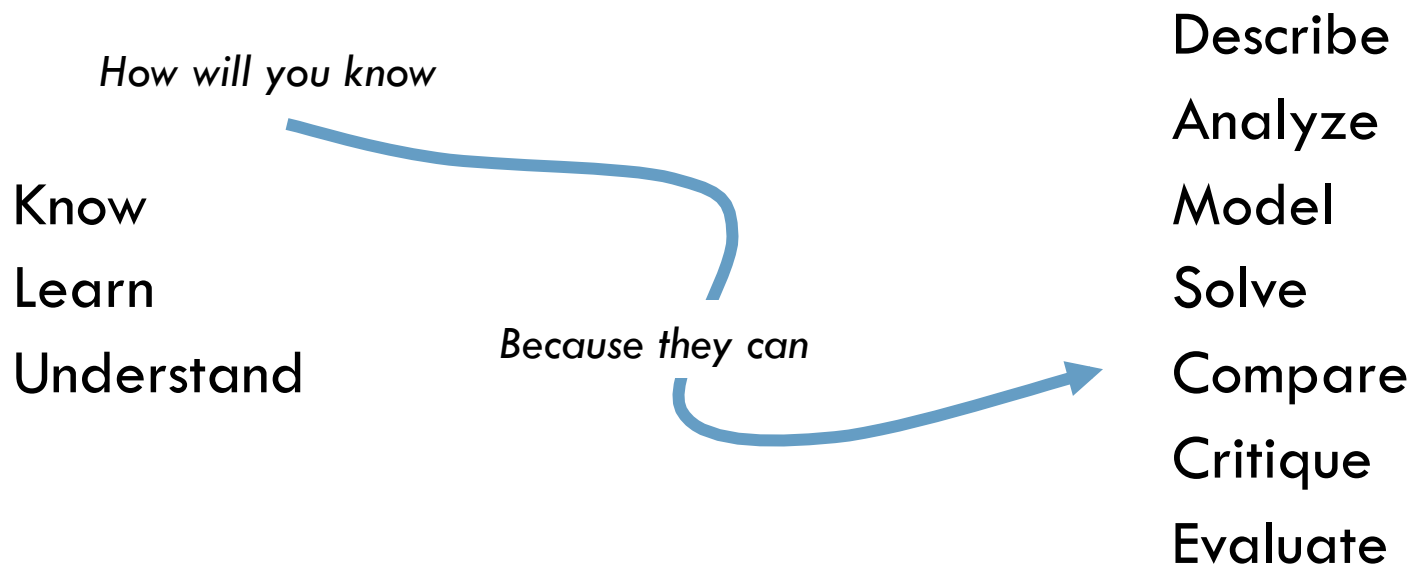
You cannot tell when students have reached **goals**, but you can tell when they have reached **objectives**.

***You can't know what someone is thinking, but you can know what they're doing.*

In order to measure student progress, you need to move from goals to objectives

General Goals

Specific Outcomes



What's the difference?



Goal:

Students will learn how to write organic chemistry equations.

Objective:

Students will correctly write and balance organic chemistry equations using chemical principles.

Make your learning objectives action-oriented



- specific actions
- observable behaviors
- products
- evidence

...through the use of verbs

Here is your very own verb thesaurus

Creating generate, plan, produce, develop, construct, organize, propose, invent, formulate

Evaluating argue, decide, validate, appraise, evaluate, judge, measure, rank, criticize, rate, select, consider

Analyzing distinguish, contrast, scrutinize, dissect, separate, discriminate, analyze, examine, survey

Applying employ, execute, implement, practice, calculate, show, demonstrate, translate, illustrate, model

Understanding relate, interpret, classify, summarize, discuss, describe, explain, conclude, compare/contrast

Remembering memorize, define, recite, recall, cite, count, draw, recall, list, name, record, repeat

Some examples of course objectives:



From a senior level seminar/lab:

By the end of this course, students will be able to **articulate** a perspective, **construct** a scientific argument to support a point, **pose** appropriate questions, and **make reasoned decisions**.

Some examples of course objectives:



Interpret and write the elementary steps of organic reaction mechanisms. (*Jackie Bortiatynski and Sheryl Rummel; Chemistry 203*)

Compare/contrast multiple situations to **rank** them in a meaningful way (e.g., for these four projectiles, which one will travel farther?). (*Steve Van Hook; Physics 211*)

Diagram experimental protocols in flow charts.

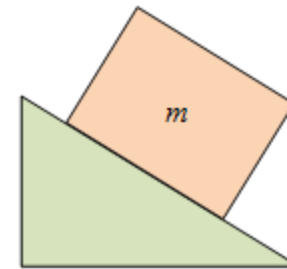
(*Meredith Defelice; BMB 442*)

Some examples of course objectives:

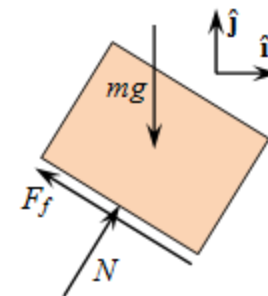
From an engineering course:

Draw and **label** a free body diagram and **describe** the forces acting on the body of interest.

A block on a ramp



Free body diagram of just the block



Identify objectives by asking questions, such as:



If I am a student in this course...

...what should I know or be able to do when I leave?

...how will I demonstrate my learning?

If I am an instructor in this course...

...what is the acceptable evidence that students have succeeded?

Write an objective for your course.



Spend 2-3 minutes sharing your objective with a partner. Ask your partner to assess your objective:

- Specific: is it described clearly?
- How measureable/observable is it?

Make your objective time-specific: link your objective with activities and assignments



- What methods are typically used to teach this objective in your discipline?
- Explain in detail how will you assess students' performance on this objective.

Here is a model for making those links



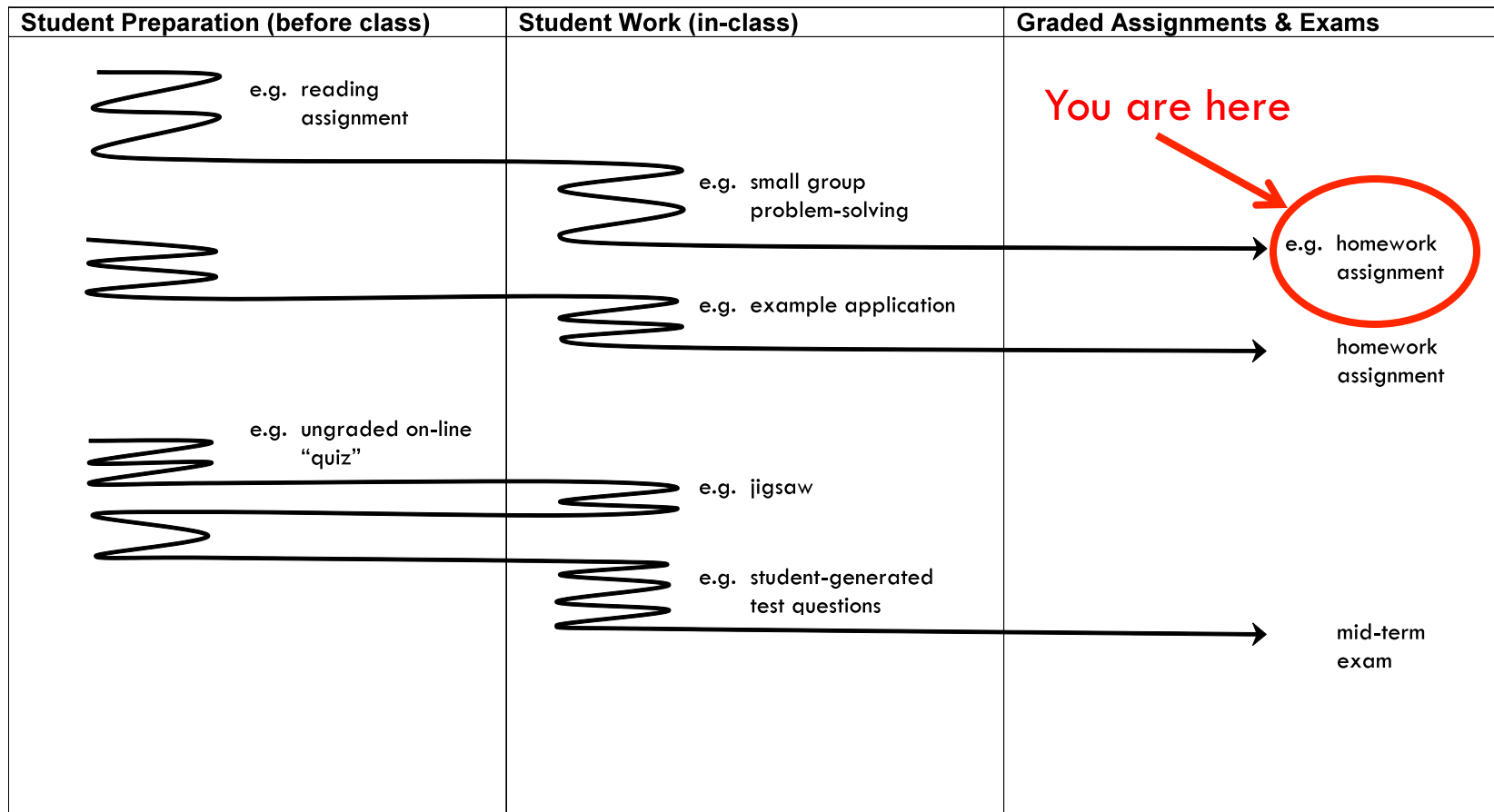
Learning objectives	Level in Bloom's Taxonomy	Teaching methods/ learning activities	Assessment techniques

Session objectives:



- Identify a main learning goal for your course
- Identify and describe a learning objective associated with that goal using precise language
- Identify appropriate activities, assignments, and exams that will teach to and test for the learning objective
- REPEAT...(most courses have 4-6 objectives)

What are the relationships between class activities and assessments?



For resources on course planning, check our website.

<http://www.schreyerinstitutione.psu.edu/EventResources/>

and

<http://www.schreyerinstitutione.psu.edu/Tools/LearningObj>

You can also contact us for an individual consultation:

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