A Short Guide to Inclusive, Learning-centered Course Design

Introduction

It is no longer "news" to say that we live in a diverse world, and today our college campuses reflect this reality more than ever before. In our classes we see students with a wide variety of backgrounds, abilities, and motivations.

The landscape of teaching is also continually changing. Research in neuroscience, psychology, and education enriches our understanding of how people learn. Ever newer technology emerges to challenge our assumptions about what teaching and learning "should" look like. And calls for accountability in tough fiscal times ask for evidence of the learning that takes place in our colleges and universities.

As a result of these mounting changes, we are urged to shift our focus as faculty from what and how we are teaching to what and how (and if!) students are learning, and we're asked to collect evidence of their learning. Yet for many faculty this is new terrain.

This Short Guide to Inclusive, Learning-centered Course Design presents a set of simple conceptual tools to help you design (or redesign) your courses for this new terrain, that is, with a learning-centered focus. Our goal is to help you design your courses around your answers to three questions:

- What do I want my students to learn as a result of this course?
- How can I know what my students have learned?
- How can I ensure that all my students have an equitable opportunity to learn and to demonstrate their learning in my course?

The guide was created to be used by an individual faculty member working alone. That said, many faculty find that talking with colleagues—especially colleagues in different academic fields—as well as with a faculty developer while working through the design process provides both useful feedback and a wealth of helpful insight and ideas. Another valuable partner in your course design process can be a disability services professional who will help you consider issues of access to learning that can no longer be left out of our work as faculty.

There are many excellent materials available in print and online that provide expositions and interpretations of research, justifications for current trends in teaching and learning, and extended processes for examining and changing one's approach to teaching. A select few are listed in the Resources section at the end of this guide.

The typical course design process

Let's look at the typical process of designing and teaching a course. Does this sound like what you do?

1. Identify an idea for a course. It might be something you've always wanted to teach a course about or a course your department has asked you to teach.

2. Design the course. For many faculty this is a very iterative process involving synthesis of many types of information including what you want to cover in the course, requirements from the department, relevant reading materials, ideas for assignments and tests, the school calendar, and your past experience.

3. Teach the course (after it has been approved and scheduled through your institution's established processes). This usually involves some amount of adjustment in light of the reality of time constraints and of the population of students in the class.

4. Calculate final grades, often relying heavily on a final exam or project as evidence of how much a student has learned in the course.

5. Reflect on how the course went and how students did and take note of improvements to be made for the next time you teach it.

If we look carefully at this process, we can see that it centers on our thoughts as disciplinary and subject matter experts and as more or less experienced teachers. Though we may think about the type of students we expect to take the course, in general we make decisions about the design of the course based on what we think will work best in light of what we want the course to cover.

A new course design process: Backward design

Grant Wiggins and Jay McTighe introduced the concept of "backward design" in 1998 in their book *Understanding by Design* and explain in the expanded second edition (2005):

> Deliberate and focused instructional design requires us as teachers and curriculum writers to make an important shift in our thinking about the nature of our job. The shift involves thinking a great deal, first, about the specific learnings sought, and the evidence of such learnings, before thinking about what we, as the teacher, will do or provide in teaching and learning activities. Though considerations about what to teach and how to teach it may dominate our thinking as a matter of habit, the challenge is to focus first on the desired learnings from which appropriate teaching will logically follow. (p. 14)

In this model, the design of a course proceeds from deliberate consideration of what we want the students to learn in it, as do choices of content and method. If we redraw the process above in this light, it would begin in the same place, with the idea for a course, but then shift:

1. Identify an idea for a course. It might be something you've always wanted to teach a course about or a course your department has asked you to teach.

2. Design the course guided by the following question:

    a. Articulate your goals for student learning in the course: In general, overarching terms what do I want my students to learn?

And because our main concern in this process is student learning, we must then consider a series of linked questions:

    b. How will I know my students have attained these goals? In other words what, specifically, will my students know, be able to do, and/or value as a result of this course? In assessment language, these are your Student Learning Outcomes.

    c. What will I ask my students to do in order to demonstrate what they have learned? And how can I design the course assessments so as to give every student equitable opportunity to demonstrate their learning? The answer to this question is the assessment methods you will use throughout the course.

    d. What do students need to know or experience in order to be able to successfully demonstrate their learning through the assessment methods I choose? This will suggest the content and activities that need to be included in the course, and on what timeline, in order for the students to be appropriately prepared for the assessments. And as in (4) above, this question calls on us to design so that all our students have equitable opportunity to acquire information and engage in the course.

The "Guide to Backward Design of Courses" chart that is part of this Short Guide lays out steps (2a) through (2d) in a format that is easy to refer to during your planning process. Here we will offer some ideas for each step.

(2a) Overall goals

This is the most general, visionary statement about your course, and it may be dictated as much by where your course fits into the major or program in which it is housed as by your own desires for it. Wiggins and McTighe suggest thinking in terms of big ideas or "enduring understandings," the important kernels of the course that we want our students to retain long after the course is over (16). Thus for a chemistry course one goal might be "Understand how data is collected in a chemistry lab, how that data is evaluated, and how it is reported."

Thinking in terms of three types of goals may help you articulate unspoken goals: knowledge (what you want your students to know), skill (what you want your students to be able to do), and affective goals (what you want your students to value as a result of this class). The chemistry goal above is a knowledge goal. A skill goal for the same class might be "Be able to perform basic lab techniques," and an affective goal might be "Develop a deep curiosity about the workings of the natural world" (Harrison 2006).

The goals you articulate in this step might become part of the course description in your syllabus.

(2b) Student Learning Outcomes (SLO)

While goals express the broad picture of a course, SLOs specify in more concrete terms what we expect students to learn. And again, it is helpful to think in terms of the three categories of knowledge, skills, and affective outcomes. Each goal can be broken down into one or more SLO. For example, a knowledge goal in a humanities course might read "Understand the basic elements of a Confucian world view." Two SLOs associated with this goal might be "Students will be able to identify and explain the classical basis for five Confucian elements in a new text" and "Students will be able to create and justify a scenario in which characters behave in valid Confucian ways."

SLOs are the first step in the assessment process, because they are statements of behaviors or products that will allow us to observe what our students have learned. Goals are so general and overarching that it would be hard to give evidence for their attainment--in that sense goals are aspirational. SLOs are concrete and practical, and a well-written SLO will almost immediately suggest methods of assessment that could be used as evidence of student learning.

We do need to pay attention to the question of granularity here. You could attempt to compose SLOs for each of the very specific bits you want your students to learn in the course. Thus the humanities course mentioned above could have an SLO for each Confucian virtue (students will be able to identify and explain the Confucian virtue of loyalty; students will be able to identify and explain the Confucian virtue of *ren*, humanity, etc.) rather than the more general "Students will be able to identify and explain the classical basis for five Confucian elements . . ."

If that level of specificity is useful to you as you begin to define your course, then by all means pursue it. We suggest, however, that you keep that complete list for your own reference and use a subset of slightly more general SLOs to aim for in the course. Or, alternatively, select 3-5 SLOs that you want to focus on in this particular offering of your course. That will sharpen your focus on the student learning in those areas and make the process of collecting assessment evidence much more doable.

It is a good idea to list the SLOs for your class in your syllabus so that your students can see, in concrete terms, what they can expect to learn in the course. Here, too, a shorter, clearly more attainable list is preferable to an exhaustive one.

(2c) Assessment measures

Again, for the most part your SLOs will suggest the kinds of assessment methods you might choose to gather evidence of student learning.

There are three things we'd like you to keep in mind here. First, multiple measures give a more valid assessment of an outcome than a single measure. Second, using a variety of different assessment methods (informal writing, posters, and take-home tests, for example) rather than just the tried-and-true of your discipline (often formal papers and sit-down midterm and final exams) will give you a variety of types of evidence, and thus a variety of lenses through which to observe what your students have learned.

And third, that kind of variety begins to address the question of access: you will come closer to ensuring that the assessment methods you choose provide equitable opportunity for all your students when they are offered in multiple formats and media (CAST).

(2d) Learning experiences and instruction

When we know what we want students to learn (our SLOs) and how we will ask them to demonstrate their learning (our assessment measures), we need to consider how the course needs to prepare students in order for them to have a fighting chance to be successful on the assessments.

This is broader and more important than "teaching to the test." It is about recognizing the knowledge and skills students need in order to learn what you are asking them to learn, which will in turn prepare them to be successful on your assessments. And it is about structuring the instruction and activities in the course so that students can develop that knowledge and those skills.

As we begin to bring final shape to the course in this step, we must continually consider questions of accessibility and usability of information, activities, and means of engagement (CAST): What assumptions are you making about students' ability to engage successfully with course materials and assessment methods? How can you design your assessment measures AND the information and activities in your course to provide equitable access to students regardless of their backgrounds, preparation for the course, and abilities?

The Goals and Outcomes Worksheet

The two page Goals and Outcomes Worksheet included in this Short Guide is a tool to help as you think through these steps in relation to your course. It asks you to articulate goals in the three categories, define SLOs for each goal, and identify assessment measures for each SLO. And it asks you, as a part of this process, to consider your perhaps unrecognized assumptions regarding your students and how they will or should be able to work.

For example, let's say you want to assess your students' understanding of a particular area of content by having them each give a three minute presentation in class--this might be a "speech" or it might be an explanation of how to do a math problem. What kinds of students are being privileged? Students with little fear of public speaking or of standing up in front of others; students who can articulate their thoughts quickly, concisely, clearly, and loudly enough for the class to hear; students whose command of English will allow appropriate expression. Students who do not fit these assumptions are in danger of being graded not on their understanding of the content, but on their lack of ability to meet our "performance" expectations.

If this is a public speaking or communications class in which the ability to speak and express oneself clearly are fundamental to the course and the discipline (and not just general expectations for anyone at the college level), then this may be as it should be. But if this is a math or sociology class and our aim is to assess students on content understanding, how can we take a valid reading of understanding that is not overly influenced by format or medium? How could we design this assessment activity so that some students will not be disadvantaged by our assumptions?

Your answer to this is dependent on many things including time and space constraints, number of students, and context within the course. We could offer students a choice of ways to demonstrate their understanding, perhaps the choice between doing the three minute presentation and creating a poster that explains and illustrates their learning. This would allow students to choose the medium in which they feel they can best demonstrate what they know. If the grading criteria are consistent across both formats (through use of a rubric, for example), then this might be a good solution.

Designing for Learning

Our original, traditional five step course design process has not really changed, has it?

1. Identify an idea for a course. It might be something you've always wanted to teach a course about or a course your department has asked you to teach.

2. Design the course guided by the following questions:

    a. Articulate your goals for student learning in the course: In general, overarching terms what do I want my students to learn?

    b. How will I know my students have attained these goals? In other words what, specifically, will my students know, be able to do, and/or value as a result of this course? In assessment language, these are your Student Learning Outcomes.

    c. What will I ask my students to do in order to demonstrate what they have learned? And how can I design the course assessments so as to give every student equitable opportunity to demonstrate their learning? The answer to this question is the assessment methods you will use throughout the course.

    d. What do students need to know or experience in order to be able to successfully demonstrate their learning through the assessment methods I choose? This will suggest the content and activities that need to be included in the course, and on what timeline, in order for the students to be appropriately prepared for the assessments. And as in (c) above, this question calls on us to design so that all our students have equitable opportunity to acquire information and engage in the course.

3. Teach the course (after it has been approved and scheduled through your institution's established processes). This usually involves some amount of adjustment in light of the reality of time constraints and of the population of students in the class.

4. Calculate final grades, relying on a variety of assessment data collected throughout the semester as evidence of how much a student has learned in the course.

5. Reflect on how the course went and how students did and take note of improvements to be made for the next time you teach it.

What has changed is the direction of our thinking, as this more fully articulated process asks us to think first about student learning across the whole course and then to move backwards to design the course to support the learning we seek. Although this may look (from the list) and sound onerous, it will become as much second nature to you as the way you go about designing courses now.

Resources

On learner-centered teaching

Blumberg, P. (2009). *Developing Learner-Centered Teaching: A Practical Guide for Faculty*. San Francisco: Jossey-Bass.

Fink, L. (2003). *Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses*. San Francisco: Jossey-Bass.

Weimer, M. (2002). *Learner-centered Teaching: Five Key Changes to Practice*. San Francisco: Jossey-Bass.

On accessibility in learning and teaching

Center for Applied Special Technology/CAST. Transforming Education through Universal Design for Learning. Retrieved September 30, 2011, from http://www.cast.org/udl/index.html .

Harrison, E. (2006). Working with Faculty toward Universally Designed Instruction. *Journal of Postsecondary Education And Disability*, 19(2) 152-162.

Wiggins, G., & McTighe, J. (2004). *Understanding by Design Professional Development Workbook*. Alexandria: Association for Supervision and Curriculum Development.

Wiggins, G., & McTighe, J. (2005). *Understanding by Design*, expanded 2nd edition. Alexandria: Association for Supervision and Curriculum Development.

Other resources used in this work

Franklin, J. (n.d.). Writing Student-centered Descriptions of Intended Student Learning Outcomes. Unpublished manuscript used with author's permission.

Keeling and Associates (n.d.). Practical Guide to Writing Student Learning Outcomes. Retrieved September 30, 2011, from http://www.eou.edu/saffairs/documents/keeling_doc-1.pdf .

For Disability Services Professionals:

We have created the Short Guide to Course Design to introduce faculty to a "backward" method of course design that places student learning at the center of attention and embeds concern for accessibility issues within that larger process. This will be a fundamental shift for most faculty, who have traditionally been asked to focus on course content before anything else.

Embedding accessibility in this process defines access to learning as an integral part of course design and thus situates it squarely within the sphere of faculty responsibility. Moreover this strategy demonstrates that accessibility (and accommodations) is not something to be added on after the fact but is a natural part of course design.

Most faculty will need your help in understanding issues of access and in creating appropriately accessible and usable information, activities, and assessments for their students. This means a shift in your role as well, from disability consultant to faculty developer. And this may not be any easier for you than what we're asking of faculty.

The potential rewards are huge, however. The more disability service providers learn how to work with faculty in their faculty world, and the more faculty we work with to create inclusively designed courses, the richer everyone's experience in postsecondary education will be--students, faculty, and ourselves!