

**\*\*Mandatory read below for all instructors w/ my comments in red. You will notice we have already addressed the majority of these. Link to entire article: <http://teaching.berkeley.edu/large-lecture-classes>**

## **Large Lecture Classes (This article is from the Univ of California, Berkeley)**

**.Ten things you can do to make your large lecture course (or any class for that matter!) more manageable and effective with reduced resources**

The list below provides suggestions for conducting large lecture courses and associated pedagogy with reduced resources (less time, funds, support from GSIs, readers, other staff support). At first glance, these items do not appear to save time or energy. Indeed, some of the items require some upfront time on the instructor's part. But in the end, all of them can save time, money, anxiety, and end of semester work on your part and on the part of students. Regardless of constricting budgets, these suggestions are also good pedagogy. The basic tenant is this: engage students more fully and actively in less material, clearly thought-out, and they will learn better, which saves everyone time and money.

**1. Establish learning goals. These are also called 'unit objectives', which are required for every unit of study in your courses (see faculty handbook).**

Once you and your students know where you're going, the trip is easier and more efficient. And often the very act of creating learning goals results in reducing the amount of material to be covered, since you have brought your course into more focus.

Steps to take:

- Answer the question, "What do I want my students to know or be able to do after completing my course?" (e.g., critically analyze a text, understand the causes of WW I, be able to evaluate statistical evidence, locate scholarly research sources, and so on)
- Revise your syllabus to match these goals.
- Decide what evidence you will need to prove that students have met the goals (e.g., certain questions on an exam, a research paper or annotated bibliography that meets particular criteria, required attendance at a library instruction session, and so on)
- Make sure that every goal has a clear assessment.

See UC Berkeley examples and read more about developing goals.

**2. Cut down on the amount of material you are trying to cover.**

**"The more teaching you do, the harder it is for students to prioritize what's important"** (Tomorrow's Professor Message 21: "Teaching Large Classes: Strategies for Improving Student Engagement"). **Content Tyranny is a problem for most college instructors, that is, trying to cover too much material. The result is usually opposite--less material absorbed at a more superficial level--of what we hope for. Be harsh with yourself and cut the material that is not absolutely essential.** The authors of "Content Tyranny" suggest that lectures should cover the following kinds of material: **If students understand the basic concepts, they can figure out the details themselves. If they do not understand the basic concepts, they will not be able to figure anything out on their own. This is the one area that makes college courses 'high-school-ish'. Data proves that "Content Tyranny" does very little for actual learning, especially for students in community colleges. Otherwise, why would students need to repeat the same courses they have completed in high school??**

- key points and general themes
- especially difficult material
- material not covered elsewhere
- examples and illustrations
- material of high interest to students.

Steps to take: Read through your syllabus and mark every topic as either “essential” “helpful.” Cut out all the “helpful”—move them to “suggested further reading.” If you’ve marked everything “essential,” ask a colleague to mark your syllabus the same way. If all else fails (and 90% of the time, you’ll be able to cut material), you need to redesign the goals of the class, perhaps in consultation with your department curriculum committee. But this is rarely necessary, if you are honest about what can be cut. Remember, you cannot teach everything in one course: it just doesn’t work. (And if you could, your students wouldn’t remember, anyway).

### **3. Focus your lecture on analyzing issues or problems, rather than on conveying factual information.**

Rely on students to get facts from their reading. Devote lectures to more in depth (see Deep and Surface Approaches to Learning) discussion and analysis. For instance, begin each class session with a question that you will devote the session to answering. This also leads to more focus and engagement. Practical Pointers on Preparing and Giving Lectures covers these ideas as well as others that will lead to more effective lecture classrooms.

Steps to take: **Turn a general topic into a question** (the same thing we ask students to do for papers). Instead of “The ways lodgepole pines propagate” make it “Why do lodgepole pines need fire to propagate?” Instead of “The Rise of the Middle Class in Postwar America?” make it “What factors were the major drivers in the rise of the middle class?” And you can ask for ideas at the beginning of class, as a way of involving the students in answering the questions.

### **4. Engage your students through active learning practices and interactive lectures**

“What professors do in their class matters far less than what they ask their students to do.” (“Teaching for Long-Term Retention and Transfer,” Halpern and Hakel). It’s difficult for anyone to sit for 50 or 80 minutes and simply listen. Attention span begins to fade after about 20 minutes, so you need to **stop every 20 minutes or so and do something new.** An actual requirement listed in our faculty handbook.

#### **Steps to take:**

- Break the class into groups (yes, even in a large class—you can just ask them to turn to the two or three people around them) to investigate a problem or answer a question; after five minutes you can randomly call on groups to respond. Just one of many ways students can collaborate during lectures.
- Hand out three x five cards and ask students to jot down a question they have as result of the last 20 minutes. Have them pass the cards three or four people to the left. Ask various people if they can answer the question on the card they now have.
- Stop the lecture for a general discussion.
- Show a short relevant video clip.
- Discuss the topic as it has appeared in the news.

See Three by Five Cards, Alternatives to Groups, Using groups in classes & encouraging study groups, Resources for Using Groups in Class, and Forming Groups in Class.

Consider having your students sit in lecture with others from their section, and you can then direct exercises and questions to them by section. Not only will they be more inclined to engage with people they already know, but you will be reinforcing the importance of the sections and making the course seem more of a unified whole.

See The Change-Up in Lectures, Activity Breaks—A Push for Participation and Beating the Numbers Game: Effective Teaching in Large Classes. Other excellent resources for activities are The Interactive Lecture from Carleton College and Barbara Davis, “Personalizing the large lecture,” in Tools for Teaching (Jossey Bass, 2009).

**5. Motivate students to complete reading assignments.** Best teachers this century are the ones who are the best motivators!

It’s frustrating to assign reading for your students and then during lectures, in group discussions, or in the results of quizzes you come to realize that few students are actually reading the assigned material. Robert Magnan (Magnan, R. (1990). 147 Practical tips for teaching professors. Madison: Magna.) believes that it is best to help students achieve critical thinking skills before they read, in order to aid their analysis and evaluation of texts. Start developing these critical thinking skills from day one. These are much easier to teach when practiced regularly by the instructor themselves.

Steps to take:

- Use a review as a preview: Review facts your students already know that relate to the reading. By connecting new information with already-learned concepts, students will be in a better position to understand and remember what they read.
- Give them a bird’s eye view: Discuss the topic covered in the reading in general terms, but avoid specifics. Students will think the reading is essential, not repetitive.
- Work with the words: Explain essential vocabulary used in the readings.
- Put questions in their heads: Ask them a mix of general and specific questions that require students to find the facts as well as analyze and interpret. Avoid putting questions in the order of the text, or students may just skim for words instead of read for meaning.
- Put questions in their hands: Give them a guide to follow as they read.

**6. Provide more and shorter feedback to students throughout the semester.**

Don’t rely just on midterms and finals to let students know how they’re doing. By providing them with frequent feedback on their progress, you ultimately save time and (and anguish). Not all assessments need to have grades attached.. Quick, frequent assessments help students to focus on areas they need work on. See Suggestions for Early Feedback, Three x Five Cards, and the excellent Classroom Assessment Techniques (Angelo and Cross, Jossey Bass 1993).

Steps to take:

Feedback on their learning:

Hand out 3 x 5 cards at the end of the class and ask students to identify what the major points covered were. This can be anonymous or not. Collect them, skim them, and begin the next class by talking about their responses. Ask those

students who were off to see you or their GSI, or to review their notes, etc. 2) Ask them to identify the “muddiest point” in the lecture. 3) Begin the lecture by soliciting questions (on cards or not) based on their reading for the day. 4) Stop a lecture at any time after a difficult topic and ask them to explain it to an intelligent high school student who knows nothing about the topic.

Feedback on your teaching:

Using the same techniques, ask them about the pace of lectures, use of PowerPoint, clarity of examples/explanations, flow of the course or anything else you would like to know about.

## **7. Vary the kinds of assessments /ways of demonstrating mastery of the material**

Problem sets, midterms, and finals are in one form or another standard in many classes. However, we all learn in different ways, and when you provide different ways for students to demonstrate their abilities, you are allowing for more to succeed in your class.

It’s important, however, to not randomly assess, but to have some sort of plan. See Using rubrics for assessing learning or improving instruction.

Steps to take: Oral reports. Group projects. Replace a midterm with an oral exam. Students can sign up for five minute meetings with you over an extended period. This also gets them into your office.

## **8. Develop alternatives to final exams/ final term papers**

First of all, by providing feedback and smaller assignments throughout the semester, you can lessen the impact of the final exam, and you and the students will not have to place so much weight on a single end-of semester activity. Such “high stakes testing” situations may be good from time to time, but should not necessarily be the norm.

Steps to take: Have students produce

- a thematic anthology;
- a Wikipedia page;
- an annotated bibliography instead of the entire paper;
- a group presentation;
- an annotated portfolio of their work throughout the term

Fuller explanations and more examples at Alternatives to Final Exams.

If you must give multiple-choice exams, develop questions that test higher-order thinking skills.

See also General Guidelines for Developing Multiple Choice Exams and Examination Tips from the University of Maryland, as well as “Multiple Choice and Matching Tests” in Tools for Teaching, Barbara Gross Davis, (Jossey-Bass, 2009)

## 1. Seven Principles for Good Practice in Undergraduate Education, from the American Association of Higher Education Bulletin, March 1987

Good practice in undergraduate education:

1. encourages contact between students and faculty,
2. develops reciprocity and cooperation among students,
3. encourages **active** learning,
4. gives **prompt** feedback,
5. emphasizes time on task,
6. communicates high expectations, and
7. respects diverse talents and ways of learning.

### 1. Teaching Large Classes: Strategies for Improving Student Learning

From a number of studies, interesting facts such as the **negative correlation between the amount of teaching and the amount of learning.**

### 2. Why Problem-Based Learning?

“Problem-based learning” sounds jargony, but it just means **focusing on specific problems and issues as a way to learn, instead of giving general “informational” lectures**, as we’ve discussed above.

### 3. Improving Student Learning While Saving Faculty Time

This math professor developed some uses of email and other technology that actually **increased his interactions with students.**

### 4. How to Create Memorable Lectures.

This Tomorrow’s Professor Listserv posting emphasizes, among other things, the idea that **expressiveness in lecturing helps your audience retain material and should not be construed as acting or pandering to students.**

*Engagement is not necessarily ‘entertainment’.*

### 5. Big, but Not Bad, in the Chronicle of Higher Education (May 9, 2003)

At the end of this helpful article there are a number of tips gleaned from various faculty who teach large classes: personalize as much as you can, by **saying hello to as many students as possible** or visiting various parts of the lecture hall before class;

7. Beating the Numbers Game: Another reminder that the **traditional lecture is not the best learning situation**, and another set of ideas for in class activities and procedures.