

## Chapter 3

# Weekly Class Preparation

Even the most experienced teachers need to plan what they will do in every class. This chapter details the steps involved in developing an organized and meaningful lesson plan.

### The Goal of the Class

Most teaching assistants meet with their students for about one hour, and rarely for more than three hours, each week (labs, of course, are longer). Your job is to use your teaching time to make learning happen. This can occur in many ways. You might impart factual information to your students, help them to clarify and consolidate information that was already presented to them in lecture, encourage them to see old information in new ways, or provide hands-on experience for a concept covered in lecture. Regardless of your approach, your students should know more, understand more, or have something new to think about by the time they pack their bags to head off to their next class.

### Having a Goal

You will be most effective as a teacher if you focus your energies on meeting one or two major goals in a given session. Our first instinct can be to focus purely on the content we hope to cover. We encourage you to begin by articulating for yourself what you would say if a colleague stopped you in the hall after class and asked, “What did your students gain in class today?” The answer will be the learning goals that should then drive your decisions about the content you will cover. These goals may be focused on students mastering specific material, grasping broad intellectual questions or approaches that underlie the material, or developing particular analytic skills.

In terms of class content, home in on the areas that will help you achieve your class goals. Be sure to share with your students the goals behind that day’s class content and activities. The key is that students will have an easier time grasping the material if it is clearly related,

focused, and contextualized. If they know what it is that they are trying to gain from a particular class, they will be able to gauge their success and ask better questions.

"A lesson plan? You mean I was supposed to have one of those?"

**EXAMPLES** *Goal:* Help students adopt the appropriate convention for scientific writing by reviewing the proper format for a lab report.

*Lesson:* Hand out sample lab reports to class; point out to students the strengths and weaknesses of each. Invite their comments and questions.

*Goal:* Develop the students' capacity to consider controversial issues from multiple perspectives by providing a forum in which students challenge their own ideas about the legalization of marijuana.

*Lesson:* Organize a debate in which every student is required to argue both sides of the issue.

*Goal:* Foster the students' understanding of how political climates shape the response to political crises by examining the circumstances surrounding the Bay of Pigs crisis.

*Lesson:* Have students read through the correspondence between Kennedy's advisers before class; divide them into groups at the beginning of class and have each group summarize the position of a particular adviser; have each group present its summary to the rest of the class; have the entire class assess the various advisers' points.

### Prioritizing Goals

Sometimes you will have a long list of points to cover. In this case, be sure to prioritize your goals and start with the one that is most critical to helping your students understand class material. If you get through the first concept quickly, move on to the next one. Think carefully about how to create a transition between points so that students understand how the material fits together. Always remember that the material is much newer to them than it is to you and they may not see connections as easily as you do.

"The best analogy I have ever heard about teaching involves books and bookshelves. The concepts in our field are like books. When we teach the concepts, we are giving students books. The key to good teaching is to remember that they may not have a bookshelf on which to put the books. We need to give them books, help them build the bookshelf, and then help them organize the books on the bookshelf."

### The Lesson Plan

Once you have established your teaching goal(s) for a particular class, *write it down*. You must be very clear with yourself about what you are trying to teach. Once you have written down your goal(s), sketch a plan to make the relevant concepts accessible and interesting to your students. Before you start writing your lesson plan, make the following decisions.

- How much talking will you do, and what will you talk about?
- How much will you expect your students to participate?
- What relevant activities can help you make your point?
- Will your students need to prepare for the class meeting in advance?

If your students will need to do special preparation in advance of your class meeting, be sure to let them know one week ahead of time so that they have fair warning. This means that you will have to be one week ahead of your students in your lesson plans.

### Writing a Lesson Plan

Although it may seem silly and tedious, you should write down everything that you plan to do in your teaching time. While you may have a very clear plan outlined in your head, it is easy to forget important details once you are faced with the questions and concerns of twenty or more students. This can be especially important in lab classes when reminding students of critical details may make a difference in the outcome of their experiments.

Most teaching assistants use an outline format for their lesson plans. This makes it easier for you to know where you are and where you are headed when you glance at the plan during class. You may even want to

color code parts of your lesson plan so that you can find your place quickly when class gets rolling.

### Telling Students the Plan

When you have spent so much time creating your lesson plan, it can be easy to forget that your students come to class with no idea about what you are planning to do. At the beginning of class, give them an overview or brief outline of the plan for the day, including the goals. Classroom activities can work exponentially better when students know how the class time will be spent and understand why they are doing what they are doing.

### Facilitating Student Notes

Some students learn and study effectively from well-organized notes, and the organization of their notes depends on your providing structure to the information. If you are lecturing, you may want to put an outline of the major points on the board so that students know where you are going. You can then check them off as you cover them. You can also write the major points on the board as you go. As you speak, highlight and review the main points so that students can see how they are related and which ideas are subordinate to others.

- Use the board as much as you can. Students know that what you write on the board is important. It also slows you down, which gives students time to write down information. If you elect to use PowerPoint, be sure to limit the words on each slide and allow students plenty of time to copy slide content.
- Use numbers so that students know how many points you are making and can organize their notes accordingly (e.g., “There are three kinds of insect life in this river. The first . . .”).

### Incorporating Writing

Asking students to write about course material requires them to think through and to fully articulate their ideas. In written assignments, you and your students can get a clearer sense of what they understand and where they are still struggling. Writing can also be an opportunity for

students to build an academic argument in a systematic, detailed, and appropriately supported manner. We encourage you to consider incorporating writing assignments in all disciplines, including the natural sciences. By writing, students move immediately from passively receiving information to actively synthesizing ideas and creating original arguments.

Students can often learn more about writing in your discipline and about the topic of the paper when given assignments that include submitting a proposal (and getting feedback), writing a draft (and getting feedback), and revising to create the final version of the paper. As you can tell from this description, students need and will benefit from your guidance as they master the expected conventions for a formal paper’s content and format within your discipline. Students can learn much more from working through, step by step, the stages involved in getting one paper “right” than from writing three different papers.

### Allotting Time

You should guesstimate how long each part of your lesson plan will take and allot your class time so that you will be able to cover all of the necessary material. You can write down the number of minutes allowed for each part of the lesson plan or the time at which you expect to begin an activity so that you do not run out of time at the end. Be sure to leave time to wrap up the class and review relevant points. Even though you may have taught with utter clarity and precision, students still will benefit from a brief summary of what just happened in class.

You do not want so strict a lesson plan as to “run over” student questions, but you also do not want to get bogged down in minor issues when major points still desperately need attention. It will help if you have some material near the end of the lesson plan that you see as optional or that you can bump into the next class session. This way you will have the flexibility to dwell longer on a topic that turns out to be of particular interest or concern to students. At the same time, use your judgment and authority to bring closure to a discussion you see as no longer productive or relevant and to steer the students back toward the major topics of the class.

**EXAMPLE** “There are so many interesting aspects to this topic, I wish we had time to pursue them all. Let’s get back to the core of what we’re dealing with today.”

### Bureaucratic Details

Although bureaucratic matters are not part of your formal lesson for the day, you will want to add them to your lesson plan. This will include things like making plans to talk with individual students, announcing a change in your office hours, scheduling review sessions, or telling students when they will get back graded material. This is also a time to solicit student questions about bureaucratic matters that may be relevant to the entire class.

You will usually want to attend to these items before you move into your lesson for the day, and they are likely to be issues that students come to class concerned about. At the end of the class students have often already shut their notebooks or you have run out of time. And trust us, you want to write these details down—they will be the first things that you forget once you walk into the classroom.

### Lesson Format

Most courses taught by graduate students use one of three (broadly defined) teaching formats: more loosely planned discussion sections, lectures, and more highly structured classes that include preplanned student activities. Decide on which one you will use for a particular class and then develop your lesson plan accordingly.

Even if the material you are teaching is traditionally presented in a lecture format (and this is how it was presented to you as an undergraduate), do not feel that lecturing is your only option. Almost all lessons can be adapted to a variety of formats; you can transmit a great deal of information while involving your students.

Whatever format you choose for a particular lesson, do not use the same format for every class. Vary your lesson plans from week to week, not only to keep things lively but also to make sure you are reaching students with different learning styles.

Different students learn well in different ways. Some students can take organized lecture notes and absorb the material; others need more active engagement with the material to grasp it. Some students can listen and learn; others are more visually oriented. By mixing up your lesson plans and providing material in different media, you facilitate learning for all students and help them become accustomed to learning material in different ways.

### Discussion Classes

If you will be running a discussion, you need to determine your goal(s) for the discussion. Then think through and write out the questions that you will use to get the discussion started. You also need to decide on your role in the discussion: will you be an active participant in the discussion? a facilitator? a devil's advocate if the discussion becomes too lopsided? In addition, decide if students must prepare for the discussion in advance and let them know what they need to do.

*See appendix B for a sample discussion section lesson plan. See chapter 4 for more information about running a discussion.*

### Lecture Classes

In an information-intensive course, you may find yourself with a list of points that need to be explained to supplement the general lecture, and another lecture or a minilecture for part of the class may be the most efficient way to impart the information. Still encourage as much participation as possible; take advantage of the smaller size of a section and try to allow students to be more active in the learning process. Make a list on the board of points you will cover and have students help you flesh them out as you go through them. If possible, use more structured class plans like "Consolidating Lists" or "Information Exchange" (see chap. 6). However, if the course material on a given day requires you to lecture without much student participation, be sure to alert your students that you are departing from your usual format and briefly explain your reasons for doing so.

In today's day and age, many instructors are turning to PowerPoint for lectures. We know PowerPoint is "sexy," but we encourage you to consider the following pros and cons of using it.

**PROS** PowerPoint provides a convenient way to store and present video clips, digital images, graphs, and charts.

It can save the instructor from having to write the lecture outline on the board or provide it on an overhead or handout.

**CONS** PowerPoint moves too fast for students (or any human mind!). Either students are too busy copying slide content to process your lecture, or students, expecting the slides to be available after class, check out.

It restricts your ability to be spontaneous in the presentation of the material.

It can limit your ability to shape your lecture in response to students' questions and needs.

*See appendix C for a sample lecture lesson plan.*

### Structured Student Activities

For highly structured, activity-based classes, you will want to make the following decisions before class begins and write them into your lesson plan.

- Will you divide students into groups and, if so, how?
- What instructions will the students need, and how will they get them?
- Will you be writing information on the board? (If so, write out what you will put on the board on your lesson plan so you can just copy it when you get to class.)
- How will you wrap up the lesson?

*See chapter 6 for specific lesson plans for structured student activities.*

### Time Management

It is fair to expect students to arrive to class on time, but in turn, you must respect their schedules and let them out on time.

#### Starting on Time

It is critical that you establish the practice of starting class on time. If you wait for the last few students to straggle in, it only encourages tardiness, and students will continue to come later and later. It also provides no incentive for typically punctual students to come on time. Once students realize that they will miss important material if they are late, most will come on time.

#### Keeping Time during Class

Prioritize class time. Decide what absolutely must get done that day and give yourself a time cushion, either at the end of an activity or at the end

of class. You will probably want to have a watch or clock available, especially if there is no clock in the room or if it is behind you. You may want to put the watch or clock on the table or desk next to you so that you are not constantly looking at your wrist. You have the right to tell students not to start packing up their bags five minutes early, but in exchange, you must end class on time without this or another warning signal from them.

### Organizing Space

Keep the physical limitations of your classroom in mind when you are crafting your lesson plans. For example, you will have trouble running an extended full-class discussion if the students' chairs are bolted to the floor in rows. If you feel too limited by the physical realities of your classroom (e.g., it is too small), do not hesitate to seek to be assigned to a more appropriate room.

#### Arranging Students

If possible, you should arrange the classroom before your students arrive. If not, have your students help you. It may seem like a hassle to have students pushing chairs around the room, and they may look at you like you're crazy when you tell them to do it, but it will make all the difference in how well a classroom discussion goes. Chair arrangement will depend on class format. In all cases, try to ensure that you can see every student's eyes.

#### Lecture Oriented

If you will be spending most of the time "imparting knowledge" to your wide-eyed students, every student should be able to see you and the board and have a place to write. This usually requires a more traditional students-facing-teacher classroom setup.

#### Discussion Oriented

If you are trying to encourage students to talk with each other about the material, no one should be looking at anyone else's back. A circle is usually the best arrangement—and make it a good circle. Students naturally create lackadaisical circles, with some students only half in and some students centered. Take the reins and force them to practice their

geometric skills in creating a fairly round, well-balanced circle. Lop-sided circles almost invariably lead to poorly balanced discussions.

#### *Lecture and Discussion Oriented*

If you are starting with a lecture and then moving into a full-class discussion, wait until it is time for the discussion to ask students to arrange their desks or chairs in a circle. You then can use the movement of everyone into a circle as an obvious signal that full-class discussion is about to begin (and it's always a good way to make sure that everyone is awake!). Or you can put students in a semicircle for the entire class, such that they can see the board and talk with each other.

#### **Placing Yourself**

Again, where you put yourself in the classroom depends on the kind of teaching you are doing.

#### *Lecture Oriented*

Naturally this places you in the front of the classroom. You can lessen the distance between you and your students by moving tables, podiums, and so on, out of the way if they stand between you and the students. In order to keep your students awake and interested, you may want to move around the front of the classroom (a good reason to move large, sharp-cornered furniture) or even around the entire classroom.

#### *Discussion Oriented*

Once you have created a near-perfect circle, place yourself as part of that circle. You may want to keep yourself near the board if you will need to use it.

#### *Lecture and Discussion Oriented*

If you are doing a combination of lecture and discussion, you may want to arrange the chairs in a half circle with you in the front. When you are lecturing, you should stand, especially if you need to use the board. When you join the class in discussion, you should sit (behind a front table, at a chair, on the table, etc.). Remember that how you place yourself, whether you stand or sit, affects how students will interact with you and the material that you are presenting at that moment.

## **Interacting with the Professor**

If you are leading a discussion section for a larger lecture course, your relationship with the professor can be easy, treacherously tricky, or anywhere in between. The professor may or may not explicitly set guidelines for your section—both situations can be problematic or productive. There are some basic guidelines that both you and the professor should follow.

#### **Feedback to the Professor**

Because of your close interaction with the students and their work, you have access to information about the course and the students that the professor may not. It is your responsibility to tell the professor certain information about students. A basic list:

- a concept the professor covered in lecture that confused students and requires review;
- a section of an exam on which many students did poorly;
- consistent problems students are having with writing assignments or their writing;
- a student who is causing problems in section or who is consistently not coming to section;
- a student who is consistently complaining about grades.

#### **Feedback from the Professor**

The amount of help and guidance that professors offer to their teaching assistants varies, but there are many ways that professors can make your life easier if they are willing. You should not hesitate to ask for any of the following, even if they are not offered:

- an outline or other guidance on information the professor would like covered in section;
- clarification of attendance or late work policies;
- a meeting with you about what material will be covered on the exam;

- a meeting to go over an exam, its answers, and a grading policy;
- a few graded papers for the first assignment so that you can get a sense of the professor's expectations and grading range.

### Your Public Relationship with the Professor

No matter what your personal feelings about the professor and their teaching style, you must keep your public relationship with them professional and maintain a "united front." You should not criticize the professor in front of your students, even if they are complaining, and you should not question the professor's abilities as a scholar or a teacher. You may use section as a time to present alternate viewpoints or additional information, but you also are responsible for helping the students understand the material the professor presents in class, so you may not dismiss it.

After a lecture with which you do not agree:

- DON'T** "Don't pay attention to what Professor Engels was saying in class yesterday. He is a Marxist, and he still believes in that outdated theory; he doesn't seem interested in recent scholarship, so I'll have to fill you in."
- Do** "There are many schools of thought and interpretation when it comes to a question like this one. Professor Engels is presenting a Marxist position. Let's make sure that you understand the elements involved in this interpretation and its strengths and weaknesses. Then if you're interested, I can explain some of the alternative interpretations."

After a student complains to you about the professor:

- DON'T** "I understand what you're saying. Professor Leslie can be dismissive and isn't always good about answering questions. Other students have had trouble in the past. And she isn't very good about answering my questions either."
- Do** "I know that Professor Leslie can be intimidating sometimes, but she is very knowledgeable, and you should feel free to go to her office hours with questions. You are also always welcome to talk to me about material you don't understand—we both are here as resources for you."

Remember that some day soon you too may be a professor teaching a course with teaching assistants; think about how you would want these graduate students to treat you and the material that you present in lecture and act accordingly.

### Addressing Problems

Every class comes with its own unique challenges. Having difficulties with a class, or in your dealings with an individual student, is a normal and expectable part of teaching. Here, and throughout the remainder of this book, you'll find guidance on addressing some of the most common problems that college teachers face. In general, we encourage you to insert an important step between recognizing and responding to problems. We call this step "diagnosing the problem" and have found that taking the time to understand the root cause of a problem goes a long way toward fixing it.

#### Making a Diagnosis

Once you have identified a problem in your class, you'll want to investigate its cause before deciding upon a solution.

**EXAMPLE** One student arrives to class late every day.

**DON'T** Develop an ad hoc lateness policy; lock the classroom door once class begins; humiliate the student in front of their peers.

**Do** Find time to catch the student after class and ask why they are coming to class late.

#### Using a Diagnosis to Find a Solution

Once you understand the reasons behind a particular problem, you and the student(s) will be able to come up with the most appropriate solution.

**EXAMPLES** The student is consistently late because the class that they have before yours is on the far side of campus, making a timely arrival to your class impossible. You and the student can discuss ways to diminish the disruption of the student's late arrival.

The student complains that the class is too early. You remind the student that they knew the class time when they enrolled and that the lateness policy applies to early birds and night owls alike.

It is often the case that taking the time to diagnose the problem fixes the problem. For example, few students will continue to come to class late once an instructor has inquired about their lateness.

### Further Reading

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