TEACHING TIPS

A. MEETING THE FIRST CLASS

Teaching assistants frequently report that the first class is the most difficult one they teach. Almost everyone is nervous.

Good teachers try to do at least three things during the first class meeting. They introduce themselves, they tell students what they need to know about the course, and they try to create a positive classroom climate. Each of these tasks is described in a bit more detail below.

Introducing Yourself

It may be hard for you to believe right now, but on the first day of class, your students will be even more nervous than you are. Most will be wondering what kind of person you are. Many will feel intimidated by you. Taking a minute or two to tell students something about yourself helps reduce their anxieties. Minimally, you should tell them your name, teach them how to pronounce it, and write it on the board so they'll know how to spell it. Beyond that, information about where you're from, when you came to EWU, what you're studying, and what you do when you're not studying can help students see you as a person and make you seem less intimidating.

If you're an international student, language differences hold the potential for becoming a problem. Even if English is your native language, your pronunciation, accent, and speech rhythms will sound unfamiliar to students. The worst thing you can do is pretend these differences don't exist or that they won't require some special efforts from both you and your students. If you don't mention language differences, students probably won't either (at least, not to you). But they will feel afraid to tell you when they don't understand you, they'll be reluctant to ask you to repeat things or write key ideas on the board. They'll stop trying to communicate with you, and they'll become increasingly resentful that you seem not to care that they're struggling to understand you. You're less likely to have problems communicating with students if you address language issues directly on the first day. You might start by saying something like: "You may have noticed that I speak English differently than you do. We should talk about this so that it won't create problems for us..." Once you've raised the issue, list some things that you and your students might do to avoid misunderstandings. If you can be open and candid about language differences, you'll find that most EWU students are patient and willing to help.

Introducing the Course

Introducing a course is a tall order. A good syllabus will make the task a hundred times easier, and you should have one ready to distribute on the first day of class. Your instructor may prepare the syllabus for you; check with him/her. When you plan the
introduction to your course, try to include the following information:

1. Tell students what the course is about and suggest reasons why students might want to know about the subject matter. Remember that most students are taking your course because they're required to do so. Initially, their interest in your subject and their motivation for learning about it may not be high. Part of every instructor's job is to help students who are not yet motivated to study become more motivated to study. You can increase student motivation by communicating your own enthusiasm for the subject and by helping students see what they'll be able to do if they know your subject matter.

2. Present and explain the course goals. Most college courses ask students to memorize important information, to understand concepts and ideas, and to apply them. You can outline course goals with statements such as that, but you'll also need to explain what you mean when you say "understand" or "apply." One good way to illustrate such goals is to show students examples of the questions that you'll ask on quizzes or exams in order to test their understanding and abilities to apply the subject matter.

3. Explain how your laboratory course relates to the lecture course. One of the most frequent complaints students report is that they don't see how what they do in laboratories relates to what they're learning in lectures. Establishing these relationships will demand your attention during each and every class, but you'll need to begin forging the relationship on the very first day.

4. Preview how class meetings will work. That is, tell students what they'll be doing during class and how they should prepare for class. Describing a typical class meeting is one way to do this. Be sure to mention how students should prepare for class and about how much time they should expect to spend studying outside of class.

5. Describe evaluation procedures in detail. How many tests or quizzes will there be, what will they be like, and when are they scheduled? How many lab reports will students write, what should they include, and what criteria will be used for grading lab reports? What will count toward the final grade, how much will each thing count, and will you grade on a curve or set minimum standards for each grade? These are the questions most on students' minds. In most cases, your instructor will determine the policies for evaluation and grading in your course, but you'll need to make sure you understand them and can communicate them to your students.

6. Provide a course schedule that indicates the topics or experiments to be covered, readings or homework to be completed, and exact dates for quizzes, exams, and submitting lab reports.

7. State policies for attendance, late assignments, make-up work, and safety reputations. Give these policies careful consideration before the course begins, and then STICK TO THEM.

Establishing a Positive Classroom Climate

The first class sets the stage and creates the mood for the rest of the course. Telling students what the course will be like is part of that stage setting, but actions speak louder than words. You can tell students that you care about their learning, that you hope they'll ask
questions, that you want them to participate in class, that you hope they'll work together. If you want them to believe it, you'll need to prove it in the first class. Students will form opinions about the climate in your class largely on the basis of how you interact with them, but there are some additional concrete things you can do.

One way to show students that you care about them is to find out something about their interests and backgrounds. Some faculty distribute 5" x 8" cards and ask students to write information about themselves that might be relevant to the course. You might, for example, ask students to write answers to the following questions:

- **Why did you sign up for this course?**
- **What other courses are you taking this quarter and in what area do you intend to major?**
- **Are you working this quarter? If so, how many hours per week? Do you live on campus or off campus?**
- **What do you think might be difficult for you in this course?**
- **What are two or three things I might do to help you do your best in this course?**

Secondly, take five or ten minutes of class time for students to meet and become acquainted with a few of their classmates. Often, especially in freshman courses, students don't know anyone else in class. They feel isolated, alone, and not at all sure they will be able to do the work. Such feelings make it hard to participate in class or to talk with other students, but you can help. If, for example, you've asked students to write information about themselves on notecards, you might ask them to discuss what they wrote with one or two other students before they turn the notecards in to you. Or you might ask the class to divide into groups of three or four, to introduce themselves to other members of the group, and to agree on one additional question they'd like you to answer about the course or about you. Afterwards, or in the next class, you can answer the questions they pose. Meanwhile, students don't need to meet everyone in class on the first day, but getting to know a few other students helps reduce the feelings of isolation the anxieties they produce.

Finally, get students actively involved during the first class meeting. Active involvement is one of the most important conditions for learning, and it will be a recurring theme in our discussions of teaching. If students actively participate during the first class, they will be much more likely to participate in subsequent class meetings. Thus, try to create an exercise, a problem, or some questions that will get students thinking and talking about the subject matter during the first class meeting. Faculty and experienced TAs can help you find or create an appropriate activity.
B. PRESENTING AND EXPLAINING: SOME IMPORTANT SKILLS

Limiting the Scope

The more research discovers about how people learn, the clearer it is that most college teachers try to present too much information too fast. Although we are not going to review the research on memory and learning here, we offer three suggestions based on that research.

First, **identify the key ideas** in what you're going to present. Depending on what it is you're trying to explain, the key ideas might be stages of a reaction, variables in an equation, steps in a procedure, elements of a program, characteristics of a classification category, or some other form of main ideas. Whatever they are, the key ideas should provide an organizational framework for the more detailed and specific information.

Second, **plan to explain no more than three or four key ideas in a single presentation**. Then give students a chance to work with those ideas. What if a reaction has more than three or four stages or an equation has more variables, or a procedure has more steps? Then find a way to present the information in stages. That is, explain one or two of the key ideas, stop to give students a chance to work with those, and then go on to the other key ideas.

Third, **limit your presentation to about 10 minutes**. If it takes longer than 10 minutes to explain something, break the presentation into two or more parts and build in questions or problems or exercises that get students actively involved between the parts.

In short, organize your material around a few key ideas and present the ideas and related information in 10 minute "chunks".

Introducing a Topic

The introduction to a class often serves as an introduction to a topic, but not always. If you cover more than one topic in a class, each new topic requires an introduction that relates it to previous topics, previews the main points in your explanation. It tells students what they should be able to do with the information after you've presented it, and motivates them to want to learn about the topic. The skills are much the same: only the topics change.

Highlighting Key Ideas

Knowing the key ideas helps students organize information and keep up with a presentation, but don't expect students to recognize them unless you point them out. Remember, most of what you present is new to students. The ability to organize that information comes with familiarity and understanding. At first, they will need your help in identifying the main ideas. Writing them on the board, repeating them, allowing students time to get them in their notes, explicitly labeling them as main ideas, and asking students to repeat them in their own words are some of the techniques you might use. Sometimes it works best to outline the key ideas all at once at the outset. Other times it's better to present
them one at a time. Faculty and experienced TAs can help you know which works better depending on the subject matter.

**Providing Examples or Problems**

You'll need at least one example or problem to illustrate the ideas or procedures you're trying to explain. Try to find examples that clearly illustrate the key ideas or procedural steps. If you can create examples and problems that will be interesting to students, all the better. Finding just the right example or problem is one of the hardest parts of teaching. Good teachers tell us that selecting or creating examples is what takes them the most time in preparing for class.

Once you have a good example or problem, you're half-way there, but you still have to explain it to students. The most important thing at this stage is that you explicitly point out how the example or demonstration illustrates the key ideas. Often, students focus on details and miss the main ideas. Thus, when you talk about an example or work through a problem or procedure, be sure to emphasize the key ideas as you come to them.

Before you conclude, review the main ideas one more time. This may seem unnecessary to you if you outlined the key ideas when you started and repeated them again as you discussed an example or problem. Remember, however, you are an expert. What seems obvious to you may not be obvious to your students who are struggling to understand. Further, as you talk about examples or work through a couple of problems, students have a lot of time to lose track of the main ideas. One good way to make sure students have got the main ideas is to ask them at the end to list the main points they should remember.

When it comes to teaching, no presentation or explanation is complete until you've checked to see that students understand. Throughout your presentation, periodically ask students how everything is going for them. You may also ask students what they remember from a previous presentation and ask them to explain it back to you. Checking for understanding is a complex skill that requires practice and research, so don’t get bogged down in it. At this stage in your teaching development, simply keep clear lines of communication open between yourself and students.
C. OTHER TEACHING SUGGESTIONS

Before Class

Since student responses may be unpredictable, you need to know what they are attempting to accomplish and how they intend to do it.

Refresh your knowledge and get problems and objectives well in mind. Review what you know of the subject at hand by reading advanced texts, studying notes, and reading any recent reviews of the subject.

Test reagents and inspect materials. Each instructor should see to this personally, far enough in advance of class that mistakes could be rectified. One of the quickest ways to destroy interest is to ask the students to imagine what would have happened if only a reagent had been properly prepared or if only the plants or animals had been alive or if only we had some essential materials.

During the Lead-Off

Say no more than is necessary. Learn to speak concisely. Simply state the objective of the lab and outline how this is to be accomplished.

Say it once clearly. Each time you repeat more students turn their minds off the subject and start to think about something else.

Stay within the guidelines of the lab manual or professor's instructions. Don't digress on a personal tangent.

During the first lab session, stress to the students that labs are an important part of the course. This is where they receive their "hands on" experience.

During Student Working Time

Do not interrupt. Organize presentations well enough to preclude the necessity of interrupting. If necessary, go from student to student with any omitted information, but do not bring the entire class to a halt.

Circulate among your students to be available for consultation and to keep aware of how well the students are progressing. Encourage shy students to ask questions by asking them how they are doing.

Stick to the subject. You should lead any irrelevant discussion promptly back to the problem at hand.

Expect the students to consult one another and their text. Don't give the students answers to their questions, but lead them in discovering the answers for themselves. Ask them leading questions to get them thinking in the right direction. You thus imply to the
students that you expect them to put forth at least some effort and that you are not going to
do their work for them.

Do not leave lab unattended.

Do not camouflage personal ignorance. When a student asks a question to which you
do not know an answer, write down the question and get an answer before the next class
meeting.

**During Discussions**

Avoid belaboring a minor point. Do not allocate more time to a point than it is worth.
Offer to continue discussion privately after class with those who may be interested.

Avoid belaboring a point already made. Do not put 21 students to sleep in order to
help 3 who still don't understand. See the 3 after class.

Do not concede that an experiment didn't work as it was supposed to. An experiment
or demonstration may not come out as expected, but it always works as it is "supposed" to. If
it does not, then some law of nature has been broken. If you concede that an experiment
does not work as it should, you imply that nature's laws sometimes work and sometimes do
not, hardly an acceptable scientific point of view.

Address students by name. In classes as small as those in this department you
should be able to address each student by name. Students will respond better and work
harder for a teacher who cares enough to attend to pleasantries such as this.