ABOUT THIS GUIDE

This guide is meant to provide all graduate instructors at UC Davis, regardless of discipline and experience, with a resource to refer to throughout their teaching careers. It is not intended to be a comprehensive overview to successful teaching, but instead, an introduction with important information to help you get started and think about how to make your teaching more effective. This guide is designed to be accessible to beginning Teaching Assistants (TAs) with practical advice and pertinent information about teaching for the first time, as well as to experienced instructors with additional information and ideas to help improve your teaching skills. The effective teaching practices and principles presented here are meant to be feasible and applicable for any TA in any discipline working with any level of students, whether you are a science or engineering TA teaching an introductory lab or a humanities TA leading an upper division discussion.

This guide is organized around the following objectives:

- to clarify your role and responsibilities as a TA at UC Davis
- to help you feel confident on your first day of class
- to offer you concrete strategies for how to support a diverse student population
- to encourage you to engage your students
- to demonstrate the benefits of ongoing, consistent, and meaningful feedback
- to support you in reflecting on and investing in your teaching
- to introduce you to campus resources available for TAs and students

While we recommend that you read the guide in its entirety, we have also designed this guide to make it easy to reference sections relevant to your specific teaching concerns. Each chapter offers a short summary of pedagogical concepts and theories, followed by concrete strategies that you can apply in your classroom and a list of frequently asked questions from UC Davis TAs. We have also included practical advice from experienced TAs throughout each chapter and references to additional resources (online, on campus, throughout the guide) that may provide you with further support and/or information. Whenever you see a “Dig Deeper” section, this references online supplementary materials that complement a particular topic, such as samples of rubrics and syllabi, comprehensive lists of strategies and ideas, and introductions to specific learning models. The online materials can be accessed through the online version of this guide at the Center for Educational Effectiveness website.

Finally, if you ever encounter a scenario or a question that cannot be answered by this guide, feel free to contact the Center for Educational Effectiveness. We hope you have a wonderful and successful time teaching at UC Davis!
WELCOME TO UC DAVIS!
We are grateful that you have chosen our community as the place to undertake graduate training in your area of study.

In the coming years, you will build on the knowledge you have from your own undergraduate work to become experts in your field and investigators undertaking original research of great importance. At the same time, you will become part of our teaching and learning community. As teaching assistants, you will be the primary point of contact for hundreds of students who may be having their only moment of experimentation in your field. Your impact will be large.

Much of the emphasis in graduate work is on research. This makes sense as research is your passion, and what will ultimately distinguish you in your chosen profession or in academia if that is your path. I hope at the same time you will see your teaching is of great importance in your overall development as a researcher and educator during your years at UC Davis. Experiences with you in the classroom will open new doors for our students. Your knowledge will encourage them to ask questions they have never considered. Your behavior will model how to positively contribute to a learning community and interact with diverse individuals. You will be able to help them navigate college and learn about graduate school. Your enthusiasm will motivate them to overcome struggles with material and see how in-class knowledge can ultimately be applied to make the world a better place.

Teaching can have a positive impact on your own life. This may not be initially apparent. It can be challenging to balance the demands of teaching with coursework and research. You may find the hours you put into teaching in direct conflict, even, with your many other responsibilities. It is important, as you embark now on your career as a teacher, to understand that there are real benefits in taking the time to develop an intentional and successful teaching practice. Teaching, especially teaching foundational concepts in introductory courses, enables graduate students to write stronger dissertations with farther-reaching results. Using your time in the classroom to actively learn what works and what does not will help you, should you pursue an academic job, distinguish yourself in a crowded field of applicants, and build a competitive teaching portfolio. Moreover, engaged teachers who learn from experience and examine their students’ learning outcomes reach students in exceptional ways, opening up pathways to your own area of expertise for the next generation. Should you choose a career beyond academia, your teaching will translate to other wide-ranging skills applicable outside of the classroom, including public speaking, thinking creatively and logically, fostering inclusivity, and appreciating diversity.

Please reach out to the Teaching Assistant Consultants at our Center for Educational Effectiveness for support. Developing a strong teaching practice is a process that requires practice. Like research, it is an iterative process that begins with a hypothesis of how students learn, and requires practice over time crafting assignments, delivering information, and examining learning gains. Your hypotheses will change as your experience grows. We look forward to making the teaching and learning journey with you, over these next years. Our students are fortunate that you have brought your expertise and excitement to our campus. In your classrooms, their lives will be changed for the better.

Best wishes,

Carolyn Thomas
Dean and Vice Provost for Undergraduate Education
Professor of American Studies
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CHAPTER 1: GETTING STARTED

What is a UC Davis Teaching Assistant?

Teaching Assistants (TAs) assist instructors of record (usually faculty members) with instructional responsibilities for undergraduate-, and sometimes graduate-level courses. Since students may spend the majority of their time in certain courses interacting and learning with TAs, your role is integral for undergraduate education at UC Davis. But what does this all mean?

General TA Responsibilities

While your specific responsibilities will vary across disciplines and departments, and will depend on the expectations of the instructor of record, the following are general responsibilities expected of any TA.

Attend lecture: It is common for beginning TAs and TAs new to a course to attend lecture (which refers to the section taught by the instructor of record, even if they do not spend it “lecturing”). At the very least, you may want to attend the first day to be introduced to your students. Attending lecture offers several benefits: you will be exposed to the course content in the same manner as your students, you can align your teaching with the instructor of record’s expectations and objectives, you know what was or was not covered in lecture, and you can remain consistent by using the same nomenclature and notation as the instructor of record. That said, attending lecture may take time away from other activities, such as giving feedback on assignments, so you should ask the instructor of record what the expectations are for the whole term, or alternative ways to be informed of what was covered during lecture (e.g., obtaining lecture notes).

Collaborate with other TAs for the course: Many large enrollment courses will have multiple TAs. Benefits to working together include: consistency across sections (e.g., grading criteria), sharing resources and materials, and helping each other if an emergency arises (e.g., cover sections or grade student work). In some instances, there may be a lead TA (a TA who has taught the course before with the instructor of record) that guides newer TAs, and/or there may be weekly meetings with the instructor and all course TAs. Consider setting up a regular meeting with all TAs for a course if one does not already exist.

Hold weekly office hours: Ask the instructor of record or your hiring department how many weekly office hours you are required to conduct, and where. If a designated location for hosting office hours is not provided, you may have students visit you in your office or at another appropriate public location (such as the Student Community Center or a department library). During office hours, you are expected to be available to help students with any questions they have, go over material, and prepare for exams and assignments. Oftentimes, TAs may schedule additional office hours prior to an exam or near the end of the quarter.
Facilitate lab or discussion sections: In addition to lectures delivered by the instructor of record every week, many courses have a weekly discussion or lab section. Usually these sections are the responsibility of one or more TAs, depending on how many sections there are. In some courses, TAs are given specific topics to review during section, while others may have complete autonomy over the content. It is a good idea to talk to other TAs and find out what material students in the course often struggle with, and approaches to helping them understand it. You should also speak with the instructor of record to find out their objectives for what students will learn, and how they expect you to achieve those objectives. Overall, your job is to facilitate student learning.

Guest lecture: If you are interested in developing your teaching skills, seek out opportunities to “guest lecture,” or teach a unit in the lecture portion of the course. Find out at the beginning of the term if the instructor of record plans to miss any lectures due to travel obligations and offer to fill in, either using the instructor’s lecture notes or your own. Alternatively, if a lecture topic is closely related to your own research interests, ask if you may present your research and lecture on the topic.

Prepare and proofread exam questions: It is common for a TA to contribute questions to an exam, especially if material covered during discussion section is complementary to lecture and therefore relevant for assessment. It is also common for instructors to ask their TAs to proofread an exam before giving it to students to make sure questions are worded clearly and the formatting is correct.

Proctor exams: Handing out exams, especially in large classes, requires multiple individuals to be efficient. You may be asked to be present only during the beginning of the exam or you may be expected to sit with students as they take the exam, to answer questions, keep track of time, and be vigilant for wandering eyes to ensure academic integrity.

Provide feedback and grading: TAs may be asked to grade an exam, or a portion of an exam, in collaboration with the instructor of record, other TAs, or a Reader (a graduate student who is hired only to assist with grading). Grading an exam may involve taking Scantron multiple-choice forms to be scored at the Center for Educational Effectiveness (CEE; http://cee.ucdavis.edu), using a pre-written answer key, and/or creating an answer key with the instructor. Similarly, with written assignments, grading autonomy may vary. You may have to write your own rubrics or work closely with a Reader and/or the instructor to ensure assignments are graded quickly and fairly. If the discussion or lab portion of the course is graded, you may be responsible for determining this portion of the students’ overall grade. Whether grading exams or written assignments, you may also be asked to provide feedback to students in the form of written comments.

Advise the instructor of record of plagiarism and issues with student conduct: While TAs have autonomy and authority in their own classrooms,
student behavioral issues or issues of academic dishonesty should be discussed with the instructor of record in a timely manner. This may require copying the instructor on email communications, asking to meet with the instructor, or bringing up an issue during a TA meeting.

Benefits of Being a TA

• Gaining teaching experience as a graduate student is a valuable source of professional development. As a TA, you will learn leadership skills that you can use throughout your career. It is also an opportunity to think deeply about your discipline, or a related discipline, and convey your passion for a topic to your students. Often we learn the most about a topic by teaching it to others!
• Working as a TA allows you to form close personal relationships with faculty members other than your advisor and committee members.
• Teaching can be remarkably inspiring, satisfying, and fulfilling.
• As a TA, you are paid, you receive healthcare coverage, and your in-state fees are partially remitted. You may TA during the academic year at 25-50% time, 75% when you have passed your qualifying exams and are ABD (All but dissertation), and 100% time during Summer Sessions.
• If you plan to work at an institution of higher education, whether it is a research-focused institution (such as UC Davis) or a teaching-focused institution (such as a California State University, a small liberal arts college, or a community college) your application will be more competitive if you have substantial pedagogical knowledge and teaching and mentoring experience.

Challenges of Being a TA

• Teaching takes time. As a graduate student you will find yourself juggling multiple areas of interest and responsibility. You will have to learn to allocate your time between teaching, research, coursework, and your personal life. However, this experience will also prepare you for work as a faculty member, if that is the route you choose to take.
• Teaching, just like everything else, takes practice, but TAs are not expected to be expert teachers upon stepping into the classroom. Set realistic expectations for yourself, and be sure to ask for help when you encounter areas of difficulty. This guide is one source of information, but you can turn to other resources as well, including senior graduate students, the TA Consultants at the Center for Educational Effectiveness, departmental administrators, and other campus resources.

I’m the TA! Where do I Start?

TAs and students alike usually are anxious about their first few class sessions. However, the beginning days can be exciting if handled properly, and will set the tone for the rest of the quarter.
Building Confidence

- Being a TA is all about the students, not about you! Remember, you are a facilitator of student learning and success, and are not expected to be the expert.
- Expect to be nervous, but also expect to do well.
- Visualize the classroom experience going well. Be confident in yourself!
- Remember, students generally mistake nervousness for enthusiasm.
- Review your lesson plan and the material before class to reduce nerves, but also remember that you learn much faster than your undergraduates (you've had more practice!), so you will be able to stay ahead of them even if the material is new to you.
- Practice your first class by speaking it aloud to a friend, a mirror, or your dog.
- Think about other challenges that you may face (e.g., no student participation) and envision how you will handle them.

Planning Your First Day

**Confirm the day, time, and location of your class.** Use the Registrar’s website (https://registrar.ucdavis.edu) to check the time of your section or lab. Use the UC Davis campus map (http://campusmap.ucdavis.edu/) to locate buildings.

> "In my first class in the United States, I prepared visual materials that required a laptop and projector. When I entered the classroom, I realized that there was no projector. I looked at my students and they looked back at me. Then, I decided to begin my first class without a projector. At the end of the class, I asked them if they had any questions. They looked at me and asked, ‘What's your name?’"
> — Hsiao-Chi (Angel) Chang, TA, Education, TAC, 2011–12

**Identify the type of technology that will be available in your classroom.** Do you need keys to access it? Do you know how to use it? We highly recommend visiting the room before you begin teaching and testing any technology that you may plan to use. You can find out what equipment is standard in your classroom by visiting the Registrar’s website (https://registrar.ucdavis.edu/rooms/lookup.cfm). For on-call support for using the classroom media equipment or if you are locked out of the media cabinet, contact UC Davis Academic Technology Services (ATS) at (530) 752-3333 or e-mail ats@ucdavis.edu.

**Familiarize yourself with the learning management system that your class is using.** In the 2015-16 academic year most UC Davis faculty and courses are using Smartsite (http://smartsite.ucdavis.edu). Take the time to add materials that your students may need. If you have not been added to the course site on the learning management system, speak with the instructor of record, who will add you to the course site.
You may want to create a syllabus for your discussion section or lab. Even if it is not required by the instructor of record, you may want to create a section syllabus that addresses objectives, policies, participation, study tips, etc. pertinent to your specific section or lab. It demonstrates to your students that you are prepared and may help you set expectations on day one.

**Plan the activities you will do on your first day.** Make a thorough plan for your first day. Prepare more activities than you expect to need (do not rely on students to fill time by asking questions). Remember, however, that a successful day does not necessarily mean getting through all of the activities you planned. It can be helpful to practice in the room you will teach in and check that you are audible from the back of the room. If you plan to run your discussion or lab a certain way all quarter (e.g., small group work, lots of participation), you should get started on the first day so that student expectations are set.

**Locate where you can make copies.** Speak with more experienced TAs in the department or your hiring department to find out where to make copies for course materials. You do not need to pay for copies out of pocket.

**Find out how many students you will have.** Check your class roster on the learning management system to see how many students are enrolled in your section or lab. The number of students may change in the first several weeks of the course as students rearrange their schedules. Talk to the instructor of record or other experienced TAs about how to handle students who add the class late.

> “The little things can make a big difference. On my first day in a new classroom, I discovered that there was no chalk! None of the nearby classrooms had extra. Fortunately, I was able to use the room’s document projector, but I now pack a little box of chalk if I’m going to a new classroom.”

— Erin Hendel, TA, English and Native American Studies, TAC 2011–12

**Determine and obtain the materials (e.g., chalk, white board markers, etc.) that you will need.** If you will be using the media cabinet to show a video or project a presentation, your computer may need a VGA adapter. Ask the program coordinator of your hiring department where you can find office supplies needed for your class.

**Decide when and where you will conduct office hours.** Speak with the instructor of record or ask the program coordinator of your hiring department how many office hours you are required to hold and if there is a designated place to hold them. Many departments assign graduate students to offices and office hours can be held there. It is important that you confirm this prior to your first meeting with your section so that you can provide them with that information.
STRATEGIES FOR A SUCCESSFUL FIRST DAY OF CLASS

Arrive early. There is always at least a ten minute passing period between classes. If you need more time, you can check the UC Davis Conference and Event Services website (http://www.cevs.ucdavis.edu) to see if there is another class or event in your space before or after your scheduled class. Allow plenty of time to set up before students arrive. You may want to establish a comfortable atmosphere by chatting with students as they trickle in. Possible topics: their major, their summer/winter/spring break, their previous experience with the subject of the course.

Write the course section on the board with any other important information (e.g., your name, office hours, office location, your email) so students know that they are in the right place as they arrive.

Introduce yourself. You may want to provide a brief biographical sketch, such as where you are from, your position at UC Davis (e.g., PhD student from Plant Sciences), how you got excited about the field, and/or what you find most compelling about the subject. You will seem more accessible and friendly if the students know something about you.

Explain section/lab expectations (e.g., objectives of the section, homework, participation, technology in the classroom, how will you post materials or communicate with students, etc.). You may refer to your syllabus, if you created one for your section/lab, or make a list on the board. This will also help students understand how your section/lab is related to lecture.

Explain what students can expect from you. Will you read drafts of papers? Hold review sessions? How will you evaluate their work? How often will you respond to emails? Are you only available during office hours or also after lecture/section/lab? Be transparent about what your responsibilities are as a TA.

Remind students what they need to bring to section/lab (e.g., textbook, lab notebooks, dictionary, etc.). Be a role model on the first day by bringing what you expect students to have.

Have students introduce themselves, either in small groups or pairs. This will help them feel comfortable with one another. By building a trusting environment, they will be more likely to speak up in class as the quarter progresses. This may include sharing their name and major, but also information pertinent to the course:

* If you are teaching a math class, you may ask them to state one way that math enriches their daily lives.
* If you are teaching a foreign language class, you may ask them how the language they are learning has helped them outside of the classroom.

Bring a copy of your class roster so that you can take attendance, or have a sign-in sheet. You may also want to take notes on how to pronounce students’ names or what nicknames they prefer.

Be aware of what you are doing and how you are doing it! Speak slowly, clearly, and loudly. Act confidently. Try to make eye contact with all of your students, not just those seated in the very front.

Observe the room environment. Try to circulate the room on the first day so that you can see whether the boards and/or the screens are visible or not, the readability of your handwriting, and how well you and your students can hear each other from different parts of the room. Circulating the room to interact with students and examine their work can also provide feedback to you about student understanding.

Stay a few minutes after class to answer students’ questions about the course, the material you covered that day, or any logistical concerns they may have.
Best Practices for International TAs

As an international TA, the U.S. educational system experienced by UC Davis students may be quite different from the one that you are accustomed to for both linguistic and cultural reasons. This includes different expectations of student academic preparation and performance, different policies governing grading and citation, and different relationships between students and teachers. Your fellow TAs, the TA Consultants at the Center for Educational Effectiveness, and this guide can provide a wealth of information that may help you become familiar with your new academic learning and teaching environment. The following are some best practices to help you navigate and adjust to the U.S. educational system at UC Davis:

Ask questions! Communicate with other TAs, especially international TAs, in your department about their experiences working with students and professors. For example, what specific problems have they encountered, and how have they solved these problems? Communicate with the instructor of record with whom you will be working. For instance, what are their expectations of you and of the students in lecture and in the discussion section or lab? What is the grading policy?

“A fast way to absorb American culture is to watch TV. And if you do watch television, watch it critically. Do not just sit there and absorb everything that comes through. Pick up language cues and see how people communicate in daily life. Those things will be really helpful to you and also a good source of icebreakers while interacting with your students.”

— Hang-Wei (Henry) Hao, TA, Economics, TAC, 2013–14

Be aware of common characteristics of American universities. In the U.S., instructors and students are generally informal with one another. You may encounter students drinking coffee or eating in class, wearing casual clothes, or calling their instructor by his or her first name. This kind of informality usually does not mean that the students are any less serious about learning or that they lack respect for their instructor.

Other common U.S. educational practices include:

- Asking questions during class. The U.S. educational system encourages students to participate actively in class.
- Challenging instructors’ grading procedures on exams and other graded assignments. Students may speak with you and/or the instructor of record if they think a mistake has been made. Be prepared to explain your grading procedures and to make your expectations clear.
- Forming one’s own opinion. Developing analytical skills is important. Students are expected to think independently and creatively about issues and concepts.

See Campus Resources at the end of this guide for a list of services that can support your teaching and your English language learning.
Address the language issue directly with your students as early as possible. If you are an English Language Learner (ELL) or have a strong accent, acknowledge that your English may be difficult for them to understand. You could say, for example, “English is not my native language. I’ll do my best to make sure you understand me, but I’ll need your help. Let me know when you do not understand something I say and make an effort to try to understand what I’m saying.” If you speak a non-American variety of English, you may choose to tell them where your accent is from, and how your accent and language are an important part of your identity. The following are additional strategies to help you communicate more clearly and effectively in your classroom:

- Encourage students to ask you to repeat if necessary and to see you after class or during office hours for further clarification.
- Write an outline of the day’s activities on the board or provide information on a handout. If you mispronounce a word or have difficulty explaining a concept, your students will still know what you are talking about.
- Write difficult terms and concepts on the board and/or use PowerPoint, overheads, and diagrams to supplement your oral presentations.
- Practice pronouncing keywords and other vocabulary that you use frequently with another TA, a colleague, or a friend. These words may be field-specific, lecture or lab-specific, or words commonly used in the classroom (e.g., syllabus, Scantron). If you are struggling with a term, write the word on the board.

“From a linguistic point of view, no accent is inherently better or worse than any other—your American students have accents, too! If your students have difficulty understanding your accent at first, remind them that their ears will naturally adjust to understand it better over time, so long as they make an honest effort to listen. You can speed up this process by speaking slowly and loudly, making sure to enunciate important words and write them on the board, and doing frequent comprehension checks.”

— Dan Villarreal, TA, Linguistics, TAC 2015–16

Check for student understanding periodically. Provide opportunities for students to ask questions in order to gauge whether they are understanding what you are saying. This will demonstrate that you care about their learning and will help you ensure that you are communicating effectively.

Keep in mind that the reason students resist your accent and language may have little to do with you. Some UC Davis students lack prior experience with people from other countries, and those who have not been exposed to non-American accents may automatically think that they cannot understand international TAs. Some students may also use your accent as an excuse for their own poor performance in the class, even though it is really due to other factors (e.g., poor study skills). Emphasize how being exposed
to different accents will add to the students’ own diversity and perspective. Most importantly, do not be discouraged about your English!

**Frequently Asked Questions**

**What should my students call me?** Generally, the instructional setting at UC Davis is informal, and TAs often ask their students to call them by their first name. However, what your students call you is ultimately up to you. Some TAs may feel that using surnames helps establish the appropriate professional distance between them and their students and leads to fewer disciplinary problems. Another consideration is that although you may feel comfortable when your students use your first name, some students are uncomfortable in this situation. Their culture may require that they show respect to teachers by addressing them as Mr., Ms., Professor, or Doctor.

**What should I wear?** While your dress can subtly influence your students’ attitudes towards you and the course, your competence and personality are much more important. Some TAs dress more formally early in the quarter to establish their authority, then dress more casually later in the quarter. Most would describe TA dress at UC Davis as casual, and many TAs do not dress differently on days that they teach than days that they attend classes themselves. Look around campus to see what other TAs are wearing and dress to feel comfortable and to be able to move easily and confidently. Lastly, if you are teaching a lab, you may be required to wear certain clothes, so check with your lab or other experienced TAs.

**Where should I sit or stand?** Use of physical space in the classroom is an important instructional tool. Generally, standing makes you the center of attention, whereas sitting focuses more attention back to the group. Try to move around the room so that you have proximity to all students, regardless of where they are seated. When students speak during whole group discussions, move away from them slightly so that they project their voices across the room. This helps the other students hear the response.

**How should I hold the chalk so it does not squeak?** Hold the chalk at a 45-degree angle to the board surface and/or break the chalk in half. Inevitably, at some point the chalk will squeak anyway. Use this disruption as an opportunity for humor. You can respond by covering your ears with your hands and, with a pained look on your face, saying, “Wow, I hate it when that happens!”

**What if I do not know how to use the learning management system?** First, ask other experienced TAs or your instructor of record for support. If that is not possible, contact Academic Technology Services (ATS; http://ats.ucdavis.edu/), which has a learning management system help staff. You can attend a workshop or a drop-in session. You can also set up a one-on-one learning session, or, if you are working with several TAs who want training, you can set up a session by emailing trainers@ucdavis.edu.

**What do I need to know about using copyright-protected materials for teaching?** According to U.S. Copyright Law, TAs may publicly display and perform copyrighted works, and utilize copyrighted materials in the classroom as long as they fall under the “fair use” section of the law. “Fair use” allows limited copying of copyrighted materials without the permission of the copyright owner. In order to determine if your use of the materials falls under “fair use”, ask yourself the following two questions: 1. Are you planning on using the work in a different way, or for a different purpose, than the original creator? 2. Are you using an amount of that work that is narrowly tailored to your new purpose (learning objective)? If you’ve answered yes to both, then you are most likely covered under “fair use”. A few examples include: photocopying a chapter of a book for your teaching use only, or
making digital copies of articles (or videos) available to your students with full appropriation and then removing it online once the course ends. If in doubt, ask the instructor of record or visit UC Davis Copyright to learn more (http://copyright.universityofcalifornia.edu).

**How do I answer questions effectively?** First, listen carefully without interrupting and then ask clarifying questions if needed so you can be sure to understand the content of the question. Then, validate the question. For example, you can thank the student for bringing it up, nod encouragingly, or state that the question is a good one. Then repeat the question for the class. This is important because this ensures that the entire class hears the question. If appropriate, turn the question back to the class to encourage dialogue between students, which will increase student engagement and learning. If you can, relate the content in your response to something the students can identify with. Finally, when you have finished giving your answer, ask if further explanation is needed. If the question is outside the scope of what you are covering or requires a lengthy discussion, you may want to follow up with the student after class or during office hours.

**What if I do not know the answer?** You are not expected to know everything. If you do not know an answer, you can handle it several ways:

- Pose the question back to the class; see if anyone else knows the answer. This is a good strategy even if you do know the answer to encourage participation from the students.
- Ask the students to look up the answer (you may need to direct them to the appropriate resources) and share it in the next class session. You may want to emphasize how knowing how to find the answer may be more helpful than just knowing the answer.
- Admit without hesitation or apology that you do not know the answer. It is okay to say you do not know, but do tell students you will find out. Once you have looked it up, email the class or address it in the following class session.

The important thing is to not make up answers; you may give students the wrong information, and students might “see through” your response and not trust you or your knowledge. If you make a mistake and a student catches you, it is important to correct yourself and analyze your error. This process helps normalize error and helps students identify and correct mistakes in their own work. Students do not expect you to know everything, and admitting you do not know the answer actually makes you appear more human and helps students trust you.

**Am I going to have to lecture?** In general, TAs are not supposed to “lecture” in their sections. Generally, TAs spend no more than 15 minutes presenting/reviewing material, and then spend the rest of the class time facilitating student activities. The objective of discussion section and lab is to encourage students to engage with each other and the material to deepen their understanding of the content.

**What if a student complains about me to the instructor of record?** Each instructor of record handles these situations differently since a great deal depends on the context and content of the complaint. It is likely that the instructor of record will let the student know that s/he has been heard and that the incident will be investigated. Expect the instructor to ask you for your version of the situation. In most cases, the complaint is caused by miscommunication. Work out the situation collaboratively with the instructor. Avoid potential problems by always maintaining copies of your communications with all of your students and staying professional during all of your interactions with your students.
What do I do if the student complains to me about the instructor of record? Listen attentively so you can follow up appropriately and acknowledge how your student is feeling. In your response to the student, do not say anything negative about or undermine the instructor of record. You should see yourself both as a team member of the course and as a student advocate at the same time, which is a hard line to walk.

How do I negotiate my relationship with the instructor of record? Talk to them early, ideally before the quarter starts, and clarify daily, weekly expectations for your role as a TA. In some cases, the instructor may not be very involved with what happens during section/lab, but always make sure that you understand the expectations. Try not to be shy and hesitant about bringing up new ideas to the instructor of record (e.g., there is no rubric, but you would like to make one?). It is also important to note that your relationship with the instructor of record may vary from your relationship with your advisor and other faculty members. If you find that your relationship with the instructor of record (or any other individual on campus) is strained and causing you discomfort on campus, you may contact the Ombuds Office (Surge IV or (530) 219-6750). If you need more teaching-related support, seek advice from more experienced TAs or the TA Consultants with the Center for Educational Effectiveness.

I do not know what the instructor of record expects of me. What should I do? It is the responsibility of the instructor of record to communicate what is expected of you, but s/he might forget to do so or not give you enough information. Set up a meeting (or series of meetings) to go over the details! You may also want to speak with TAs that have worked with that instructor of record before to get a better idea of his/her work style.

Where can my students leave things for me? The best way to collect things is in person, so try to arrange a time when you will be in the office to collect items directly from your students. Also, ask whether you will be given a mailbox. If the department has a communal TA mailbox rather than a private mailbox for you, you should not use it to collect assignments unless students put their assignments in a sealed envelope. This procedure may be inconvenient, but it is necessary to avoid lost or plagiarized papers. According to the Family Educational Rights and Privacy Act (FERPA) and UC Policy, student work is confidential, so leaving it in a public space for other students or staff to see is not allowed. FERPA is explained in greater detail in Chapter 3.

How do I manage professional and personal boundaries with my students? This depends a lot on your personality and comfort level as an instructor. However, it is generally easier to become more casual and friendly as the quarter progresses and harder to become more authoritative and firm, so you may consider being firm in the beginning of the quarter and establishing authority early, and then become more personable as the quarter progresses. What you ask students to call you, what you wear, and how you handle disruptions in class can help you construct the kind of relationship you want to have with your students as well.

What should I do if a student wants to see me outside of my office hours? First, you should find out why your student cannot see you during office hours. If it is due to their schedule or reasons of confidentiality, then try to accommodate them. Unless the student is seeing you about a confidential matter, you may want to open up additional office hours to the rest of your class as well so that students do not feel like you are giving some individuals special treatment.
What should I do if a student invites me to coffee? Ethically, TAs are not allowed to receive gifts or payments from registered students in their class, nor are they allowed to date students who are currently in their class, or could be in their class in the future. As such, you may want to ask the student why s/he wants to invite you to coffee and suggest that you both speak during office hours instead.

What should I do if I am a victim or a witness of sexual harassment and discrimination? You should contact the UC Davis Harassment and Discrimination Assistance and Prevention Program (HDAPP; https://hdapp.ucdavis.edu/; (530) 752-9255) immediately for further guidance. You will be able to file a complaint, access confidential resources, and speak with advisors about the situation. The HDAPP website also provides information about what is considered discrimination or sexual harassment, what you can do about it, and UC Davis policies and procedures.

What should I do if a student tells me about something that sounds like sexual harassment or discrimination, or sexual violence? You will be teaching students who may be close in age and experience to you. Because of this, students may feel comfortable disclosing stressful situations to you. HDAPP has provided the following guidelines for responding:

1. Listen supportively. Gently let the student know that because of your role as a TA there is certain information you may need to share with others (harassment, discrimination, sexual violence, etc.).
2. Give the student information about resources. For sexual violence, refer them to the Center for Advocacy Resources and Education (CARE; http://care.ucdavis.edu/) or a Confidential Resource. You can find a list of Confidential Resources at http://hdapp.ucdavis.edu under the ‘Resources’ tab. Immediately offer to help the student contact CARE. For other issues refer the student to the UC Davis Harassment and Discrimination Assistance and Prevention Program (HDAPP), Student Judicial Affairs (SJA), or a Confidential Resource.
3. Tell someone, your faculty member department staff such as the MSO/CAO, or HDAPP, about the information you received.
4. Follow up with the student within a few days.
5. Document your actions in notes to yourself.

What should I do to prepare for campus violence or an emergency? First, be aware of your classroom and office surroundings. Where are the nearest exits out of the building? Can you open all doors and windows? Are their blinds to prevent someone from looking into your space? Are there spaces that you and/or students could potentially hide? Second, sign up for the UC Davis WarnMe and Aggie Alert system, which provides timely information and instructions via email, text, and phone during emergencies or other urgent situations related to campus and the Davis community (https://warnme.ucdavis.edu/). Finally, take part in an Active Shooter Survival Workshop and/or a Self Defense Workshop with the UC Davis Police Department. Visit their website to learn more about the workshops or for concrete steps to take when confronted with an active shooter, http://police.ucdavis.edu/divisions_services/outreach/active-shooter-survival-workshop.html.
CHAPTER 2: UNDERSTANDING YOUR STUDENTS

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CHAPTER 2: UNDERSTANDING YOUR STUDENTS

Who Are UC Davis Students?

According to the UC Davis Principles of Community (http://occr.ucdavis.edu/poc/), every member of the university community should practice and support mutual understanding, freedom of expression, courtesy, sensitivity and respect for all members of our diverse community of learning. In order to aspire to fulfill these principles and to support student retention and achievement, it’s imperative that we be mindful of the diversity that exists in our classrooms and not make assumptions about our students and their needs.

“Teach the person, not the content.”

— Robert Lynch, TA, Physics, TAC 2012–14

As of fall 2014, UC Davis has approximately 27,728 undergraduates. While gender and ethnicity are usually the most quoted statistics for identifying student demographics, other categories have implications for our teaching and our students’ learning but are often overlooked in the discussion about diversity in the classroom. The following statistics provide insights into who our students are and what they may need to be successful at UC Davis and in our classes.

- 42% of new first-year undergraduates in fall 2014 reported they would be the first generation in their families to receive a college degree.
- 35% of the new incoming undergraduates in fall 2014 were transfer students.
- 11% of undergraduates are international students (2014–15).
- 6% of UC Davis undergraduates are 25 years or older (2014–15).
- 74% of undergraduates received some form of financial aid (e.g., loans, grants, scholarships, work study) (2013–14).
- 96% of domestic undergraduates in fall 2014 were residents of California.
- 93% of first-time freshmen from 2013 returned for their second year in fall 2014.
- 11% of undergraduates in the U.S. had a registered disability in 2011–12 (US Department of Education).

Except where noted, all statistics are from Educational Effectiveness Hub data or the UC Davis student profile (retrieved, July 2015)
These statistics suggest that as a group, our students vary greatly in their learning needs, expectations, experiences, abilities, and interests. While it may be helpful to consider these categories to understand our students broadly, keep in mind that each student may fall into more than one of these groups (e.g., a transfer student may also be a first-generation college student) and that students with similar backgrounds and experiences will nonetheless have unique learning needs. Further, your students will not all learn effectively the same way that you did, nor will they all have similar experiences and support structures to help them succeed. Thus, knowing who your students are, both as a group and individually, can help you create effective learning experiences for them as a TA.

**How do Students Learn?**

Ideally, effective teaching meets the learning needs of each individual student. However, this is nearly impossible given that every group of student is so diverse and classes may be too large to get to know every single student. Nonetheless, as TAs, we can aim to help all of our students learn and succeed by basing our teaching on these principles of how students learn:

- Students experience deeper learning and retain more when they are actively engaged in the learning process.
- Students learn best across different modes.
- Students learn through guided practice.
- Students need ongoing feedback about their learning.

See Chapters 3 and 4 for specific strategies related to these four areas.

**Student Engagement**

There are many benefits to engaging our students in the classroom:

- Students learn more effectively and retain more information when they are doing things and thinking about what they are doing, rather than passively listening to us recite information.
- Students become more motivated and interested in the class and the material when they have a chance to engage with ideas and, are consequently, less bored.
- Students are encouraged to understand the material in order to be able to use and engage with it, rather than rely on rote memorization.
- Students have more opportunities to participate in class, which helps them learn how to communicate ideas, contribute to a scholarly learning community, and make connections with their classmates.
- Students, and not the instructor, become the center of the classroom.

Student engagement may include interaction between the student and the instructor, between the student and the content, and between the student and their classmates, and may involve: activities in small groups or pairs, individual student reflection or writing, small or large group discussion, problem solving, games, case studies, debates, role playing, and more.

See Chapter 4 for a list of possible classroom strategies for engaging your students.
Different Modes of Learning

Students benefit when they can learn using many parts of the brain, and by engaging with what they are learning in a variety of ways. While there is a common myth that individuals have learning styles, or a mode in which one learns best (e.g., visual learners learn by seeing, verbal learners learn by reading and writing, aural learners learn by hearing, and kinesthetic learners learn by doing and making), there is little evidence to suggest this is the case. All students benefit when we create opportunities for them to interact with material and demonstrate their knowledge in different ways. So, what should we do?

- Depending on the subject, some modes of learning are more preferable and effective than others. For instance, it makes disciplinary sense to teach acting by doing, rather than just reading about acting. Consider what you want students to learn when deciding how to best teach a certain topic.

- Have students interact with the material visually, verbally, aurally, and kinesthetically. All students will benefit from learning about and reinforcing content in a variety of modes. For example, in a chemistry lab, you may want to present molecules visually on the screen, have students manipulate a 3D model or a tangible item, and ask students to describe the molecule in groups. In a history class, you may want to present a series of events and then have students create a physical timeline that explains the causes and the effects in relation to a larger context (e.g., a geographical region, current day policies). By presenting material in a multimodal way, you ensure that all students can participate in the learning process regardless of ability or language background.

Guided Practice

Learning something new requires guidance and lots of practice. As an instructor, you can provide students with scaffolding that allows them to build upon previous understanding to process, integrate, and store new knowledge alongside pre-existing knowledge. Scaffolding refers to assistance or guidance that helps students achieve outcomes that they may not be able to accomplish on their own. It may be helpful to follow the “I do - we do - you do” model, where you first demonstrate or introduce the process, then work through or solve an example with your students together, providing guidance and feedback, and finally have students complete the task on their own. This model provides scaffolding, repetitive practice, and eventual independent accomplishment.

It is also important to note that you should not mistake yourself as the only “expert” in the classroom for scaffolding students because more advanced or experienced peers can also serve as “experts” to teach and help fellow students.
classmates. As a result, you may consider incorporating group or pair work into the “I do - we do - you do” model.

Provide Feedback to Students

Feedback is essential for learning, yet students are often only provided feedback on what they know and do not know on formal, graded assignments. Feedback may come from instructors, peers, and self-assessment, and is most helpful when provided frequently and informally. Frequent informal feedback on student understanding encourages and rewards meaningful learning, helps prepare students by making them aware of what they do and do not know, and can help you know where your students stand. The following are a few examples of how you can provide feedback to your students throughout the quarter:

- Have students submit an outline and/or an annotated bibliography prior to a final essay or project.
- Have students submit drafts of their thesis statements.
- Poll students and address misunderstandings during class.

Peer feedback can be equally helpful and can encourage independent learning. Here are a few ways to incorporate peer feedback into your classes:

- Require peer review of outlines, drafts, or lab reports prior to submission.
- Have students present projects and assignments in small groups.
- Have students evaluate a peer’s work with an analytic rubric that will be used for the final graded assignment.
- Use a discussion forum where students can share ideas and receive feedback. You can use a tool, like Piazza (https://piazza.com/) or the discussion thread application in a learning management system, to post questions or problem sets that students can answer collaboratively.

Lastly, personal feedback encourages students to develop responsibility for their own learning and reflect upon it. You can incorporate opportunities for self assessment into your classroom by doing the following:

- Provide time and space for reflections on their learning or about their performance on an assignment.
- Have students identify what they do not understand or what they would like to explore further about the content.

By receiving feedback about their learning periodically, students can revise and improve their thinking before a high-stakes assignment or exam. If you only provide feedback after a graded assignment, the student will not have an opportunity to learn from their mistakes. Additionally, providing feedback on interim outlines, drafts or assignments can reduce grading time on the final draft or exam because there are fewer errors.
How Can I Create an Inclusive Classroom Environment?

Creating an inclusive classroom environment is essential for student learning for several reasons. First, it helps aid the transition of all students, particularly of underrepresented groups, to college and sets the stage for academic success. Second, it promotes student participation by creating a safe classroom setting. Third, it enhances students’ ability to participate in a more plural and global community. Lastly, your approach as a TA serves as a model for encouraging students to be conscientious about how their actions, behaviors, and attitudes can contribute to a more inclusive and welcoming environment on campus and beyond, which the UC Davis Principles of Community affirms.

“We recognize that each of us has an obligation to the community of which we have chosen to be a part. We will strive to build a true community of spirit and purpose based on mutual respect and caring.”

—UC Davis Principles of Community

Consider doing the following to create an inclusive classroom environment:

**Learn your students’ names.** This will show your students respect and friendliness. Here are a few strategies for remembering your students’ names:

- Use assigned seating and a seating chart.
- Use name tents. You can ask students to write their names in large letters on both sides of a folded index card and to keep this card on their desks for the first few classes. Particularly in classes where you want to use students’ names frequently, name tents can help everyone in the room become familiar with one another and make it easier for them to address each other directly.
- Use student information index cards. Bring index cards and ask students to write their preferred name, email address, why they are taking the class, and anything else you would like to know. Collect these as a tool for getting to know your students within the first few weeks. You can also shuffle them and use them to form small groups or to call on someone.
- Ask students to say their names before responding.
- Encourage students to address their peers by their name.
- Return homework to students individually so that you can practice remembering names.

**Lay out participation guidelines at the beginning of the quarter.** You may decide to write them yourself and put them in the section syllabus. If you are an experienced instructor, you may decide to brainstorm with your students and have the entire class come up with a list of participation guidelines together. You should refer back to them periodically, especially before a difficult discussion topic or when one of the guidelines have been broken.
Be mindful of your language and behavior and those of your students. Avoid language that is profane, sexist, suggestive, and vulgar. Do not make assumptions or overgeneralizations about who your students are (e.g., dividing the class into "girls" and "boys" based on personal notions of our students' gender). Be aware of comments that may exclude certain students, such as commenting on religious or political beliefs, stereotypes, etc.

Welcome all comments and questions. Positively reinforce students’ participation with verbal (e.g., “that’s a great question”) and nonverbal cues (e.g., smiling, nodding, eye contact). Also, provide different modes and opportunities for voicing opinions and asking questions so that all types of students can contribute. The following are a few examples of how to do that:

- Use small group or pair work discussion and alternate between written and verbal responses.
- Have students submit comments and questions anonymously (e.g., on a sheet of paper with no name, through an online survey or poll).
- When asking a question, allow for ample wait time.
- Ask for comments or questions from students who have not contributed or ask for a volunteer from each section of the room. Do not just always call on the students in the front, or those who typically dominate the conversation.

Tactfully field incorrect answers. Avoid making a negative comment when a student makes a mistake or answers incorrectly. Instead, acknowledge the student’s effort and try to ask guiding questions or provide hints that may help the student arrive at the correct answer. For example, if you are solving a word problem, point out where the student was correct and which step may have led to the mistake. Students should be encouraged to learn how to arrive at an answer or an end product, and not be consumed with getting the right answer or the highest grade.

Value student responses and effort. Acknowledge when your students have done a good job on an assignment or an exam, when they had a great discussion or lab, when they have shown great maturity and depth in analyzing something, or anytime they have done something that impresses you.

Include diverse examples and perspectives. Ensure that you are not consistently assuming all your students share similar experiences to yours or to each others. If possible and appropriate, draw from different points of view (e.g., voices of different backgrounds) and varying examples that are not tied to a particular social class, culture, or geographical region.

How Can I Best Support My Students?

While it is important to keep in mind that all of your students are unique individuals with a variety of backgrounds and abilities, it can be useful to consider the specific needs of certain groups of students that you will be likely to encounter at UC Davis. This section includes strategies for how you can support them to succeed in your class and at UC Davis.

English Language Learners

English language learners (ELLs) may include international students who are studying abroad at UC Davis or who are full time undergraduates, and domestic students who may have completed their high school degree in another language or recently moved to the U.S. The best way to determine if your students are ELLs is by using ongoing, informal assessments that can help you gauge their English writing and speaking abilities, and reading and listening comprehension.
To Best Communicate Clearly and Effectively in Your Classroom:

Avoid highly idiomatic English. Students may miss important information if a phrase is unfamiliar or confusing, which is often the case with idioms (e.g., “once in a blue moon”).

Avoid specific U.S. cultural knowledge. Students may feel excluded or be confused by references that they do not know or recognize. If you do refer to U.S. culture, be sure to explain what it is or ask a student in your class to explain and give an example.

Provide linguistic redundancy. Many students, especially non native speakers of English, benefit from both seeing and hearing language and key ideas stated in different ways. For example:

- Write or project key points and explain them out loud.
- Provide a list of key terms or concepts at the start of each section/lab.
- Paraphrase key points, instructions, etc.
- When showing a video, turn on closed captioning.

Provide multiple opportunities to participate in class. Some ELLs may find it intimidating and challenging to speak out loud in front of a class or may not be accustomed to raising their hand and asking questions. If possible, vary between writing and speaking in your classroom, or have students share in pairs or small groups. This method will also be appreciated by quieter students and students who need more time to gather their thoughts before sharing.

Ensure that exams and assignments are clearly written. When writing or proofreading exams and assignments, keep in mind that you are testing for conceptual knowledge, not linguistic knowledge of English. You should also go over assignments and instructions with the class so that you can paraphrase the information and provide any additional clarifications.

Be clear about grading and assignment expectations. If an assignment will be graded for grammatical accuracy and mechanics, let your students know ahead of time and refer them to campus resources that can help them improve and edit their writing. There may also be cultural differences regarding plagiarism and proper citation; as such, communicate to your class what plagiarism looks like in the U.S. and what type of citation styles they should be using. Contact Student Judicial Affairs (SJA; http://sja.ucdavis.edu/faculty-and-sja.html) if you require support for addressing this matter in your classroom, or refer your students to the Student Academic Success Center (SASC; http://success.ucdavis.edu) for writing help.

First-year Undergraduates

If you are a TA for a large introductory course (e.g., Psychology 1, Linguistics 1), you will most likely have many first-year undergraduates. You can also look at your class roster on the learning management system to identify first-year students. You can support first-year undergraduates in your classroom with the following approaches.

Provide feedback early and often. Expectations in college are very different than high school, but first-year students may be unaware of the differences unless they receive ample feedback prior to their assignments and exams. Be clear about the expectations that you and the instructor of record have when it comes to attendance, participation, grading, writing quality, assignments, etc.

Clarify strategies for learning. First-year students are often accustomed to memorization, and are focused on grades and the “right” answer, so encourage critical thinking and deeper understanding of the material.
Pose complex real-life problems. First-year students may use dualistic thinking of “correct” and “incorrect” or anecdotal reasoning of “in my personal experience.” By linking the content with real-world issues, students are challenged to think more critically about the topic.

Encourage them to seek help. First-year students may not know that they need help because they have never needed assistance before or have always been successful academically. Invite them to come to office hours or to use other campus resources, such as the Student Academic Success Center (SASC, http://success.ucdavis.edu) or departmental resources.

Transfer Students

Most transfer students at UC Davis come from California Community Colleges, where they completed their general education requirements and are primarily starting their major and minor requirements upon entry. There are 113 California Community Colleges that provide differing levels of preparation for study at UC Davis. Take the following approaches to help support transfer students in your classroom:

Probe for background knowledge. Do not assume that all students in your classes took the same prerequisite coursework at UC Davis, or they remember everything. Check for background knowledge at the start of the quarter so you know where your students stand. At the beginning of the quarter, have students write down what prior courses they have taken related to the topic (if any), and give a short diagnostic quiz. Questions that require a written explanation can be particularly informative of a student’s prior knowledge and understanding. Use this to inform how you go about teaching concepts in section and/or what supplementary material and resources (extra problem sets, references to online videos or websites, additional handouts, etc.) you may need to provide to students.

Assign groups or pairs. Assigning groups or pairs, and reassigning them periodically, forces students to interact with people they do not already know and develop communication and teamwork skills. Assigning groups is especially beneficial for transfer students in classes where most students have already established a group of friends within their major or minor, helping transfer and international students feel less isolated.

“As a transfer student myself as an undergraduate, I found that instructors sometimes assumed that I knew things about the university campus/classes/culture that I had never been exposed to. As a TA, I tried to make clear what my expectations were, where to find resources, and always made sure to find ways to include everyone in the classroom. These steps ended up helping everyone, not just transfer students, but made the jump to a different university a smoother transition.”

— Emily Edris, TA, Communication, TAC 2014–15
First-generation Students

First-generation college students are the first in their family to pursue a college degree. To help first-generation college students succeed:

**Be approachable.** Students are unlikely to ask for help or seek out advice if they do not feel comfortable talking to you or if they think you do not care. Depending on your personality, you may want to share information about yourself to your students to develop a relationship with them (e.g., what you did over the weekend, something funny that happened to you, how did you become interested in your area).

**Be transparent about expectations and hidden knowledge.** First-generation college students may lack implicit knowledge about how higher education works. For instance, they may not realize that they can seek help during office hours, that papers need to be formatted and cited a particular way, how to research information online or at the library, how to find internships or research opportunities, or how to prepare for graduate or professional school.

“Those of us who are fortunate to have had parents complete postsecondary degrees are often unaware of our enormous advantage in cultural capital. Knowledge about college life that seems obvious to us (that we can attend office hours, that it’s our responsibility to buy textbooks, etc.) may not be for first-generation students. You can help put first-generation students on a level playing field by being explicit about course expectations and why you’re doing what you are doing.”

— Dan Villarreal, TA, Linguistics, TAC 2015–16

Show that you care about your students’ academic success. First-generation college students may not feel academically prepared for the transition from high school (or community college) to UC Davis due to differing expectations, pressure to do well, greater personal responsibility for their wellbeing and academics, homesickness, and/or the lack of a support network. These stresses may make them feel that they do not belong in college or in their chosen major (also known as “stereotype threat”). You can help by checking in with students if you notice their grade is dropping, by encouraging students to see you during office hours, and by communicating resources on campus that can provide academic and emotional support.

Students in Distress

Students in distress may be having a difficult time completing their academic responsibilities due to a number of health or personal problems. Since TAs have the most face-to-face contact with undergraduates, it is important to be aware and supportive of these students so that they can seek the help that they need to be successful. The following are some guidelines to help you support students who may show signs of distress:
Reach out to students if you notice poor performance or missed attendance. An e-mail or talking face-to-face with students after class are great ways to let students know that they are falling behind. Remain informative and supportive, not threatening or pushy. You may also offer to meet with them during office hours or to refer them to additional campus resources.

Do not assume that the student is lazy or unmotivated. Oftentimes students may be in distress for numerous reasons including depression, economic hardship, time management problems, illness or death of a loved one, loss of an important relationship, feelings of loneliness or isolation, bullying, or poor academic performance.

Seek advice from more experienced TAs, the instructor of record, or the UC Davis Student Health & Counseling Services (SHCS; https://shcs.ucdavis.edu). If a student provides you personal information in confidence, be sure to honor that confidence. The only exception is if a student confides in you about something that seriously threatens his or her life, or someone else’s. In that case, contact the UC Davis Student Health & Counseling Services (SHCS) immediately.

“| I often put Student Health and Counseling Services contact information in my syllabus, reminding students that they offer preventative as well as curative mental health services. Students will often interact more closely with their TAs than any other university instructors, meaning TAs are better positioned to notice students in distress. Making sure they have the resources they need during what can be a very difficult time is critical. |
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<td>— Amanda Modell, TA, American Studies and Gender, Sexuality and Women’s Studies, TAC 2014–16</td>
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Students With Disabilities

At UC Davis, the Student Disability Center (SDC) will contact the instructor of record if the course has a student with a registered disability. Unless the instructor of record has established for you to have access to accommodation letters, that information will be disseminated to you by the instructor of record or if a student provides you with a letter of accommodation from the SDC. Faculty and staff, including TAs, are legally obligated to make accommodations and ensure equal access to educational opportunities. However, you may also have students in your class with disabilities who are not registered. To learn more, visit https://sdc.ucdavis.edu.

To Best Support Students with Disabilities:

Inform students about the Student Disability Center. Many first-year or transfer students may not be aware that they need to register their disability at the SDC in order to receive accommodations. As such, include a note of that in your section/lab syllabus and make an announcement (via the learning management system or in person) as early as possible in the quarter.
because instructors can only accommodate students with disabilities if they have been registered with the SDC. The following is a sample statement that you can include in an email or on your section syllabus: “Talk with me as early in the quarter as possible to explain your needs and discuss any concerns. Solutions that benefit one student can help the whole class, so please let me know any questions or suggestions. Contact the Student Disability Center for more information and to request accommodations: (530) 752-3184; sdc@ucdavis.edu; http://sdc.ucdavis.edu/.”

Reach out to the student. If you have been contacted about a student with a disability in your class, it can be both helpful and respectful to email the student before or during the first few days of class to ask what accommodations may be needed to have a successful quarter (e.g., copies of the lecture notes and handouts prior to class, where they would like to sit, etc.).

Be mindful of whether all students can participate in your class at all times. While lesson planning, consider what modifications can be made to ensure that any student can participate and benefit equally from the activity or lesson. For example:

- If an activity or assignment requires all of the senses, consider how the activity could be modified depending on the disability. For instance, if students need to move around the room, is there space to do that with a wheelchair? Or how could a visually impaired student complete that activity?

- When showing visuals in class, describe the image without assuming that everyone can see it and be mindful of visual directions (e.g., look up, down). This is also helpful for other students because you are verbally reinforcing the image and you are highlighting what students should notice about the image. When writing or drawing on the board, say out loud what you are writing and drawing.

- Avoid using colors to differentiate information on an image or a chart because some students may be color blind. Instead, use shapes or both colors and shapes.

- When speaking, face the class to help facilitate speech reading, captioning, and sign language interpreting.

Dig Deeper
Go online for additional strategies for instructors to increase accessibility in their classes.
“Difficult students” refers to any individual who says or does something in or outside of class that is disruptive, that prevents other students from being able to learn, and/or that is inappropriate because it makes you or your students uncomfortable. This may include a threat, an offensive remark, or an aggressive gesture or comment. The following are strategies for handling difficult students in your classroom:

**Do not let disruptive students take over the class.** Students will look to you to ensure that the atmosphere in the classroom is one in which they can concentrate and learn without being distracted by neighbors. If a disruptive student is impeding others’ ability to pay attention, you have a few options:

- Remind the entire class, without calling on anyone specifically, that everyone needs to pay attention/stop texting/begin the quiz/stop talking, etc.
- Stop talking and look directly at, or walk over to, the disruptive student until the behavior stops.
- During a break or at the end of class, ask to speak to the student in private. Begin the conversation by asking for their perspective on what happened so that you are not antagonizing him/her right off the bat. Tell him/her gently but firmly that the behavior must stop.
- Remind your students that the classroom is a learning community.
- If your first requests/warnings are not heeded and a disruptive student continues to distract others, call the disruptive student by name and ask them to stop their distracting behavior. If the behavior persists, ask (and insist) that they leave the classroom.

**Seek outside help.** If faced with a persistently difficult student or a student who makes you uncomfortable, consult with the instructor of record or contact Student Judicial Affairs (530) 752-1128. You can also report a student online at: http://sja.ucdavis.edu/reporting-misconduct.html. Students (and instructors) are expected to follow the UC Davis Academic Code of Conduct. When improper conduct disrupts the class or threatens the safety of others, there are approved courses of action that need to be taken.

**Frequently Asked Questions**

**What should I do if a student approaches me for accommodations due to a disability?** First, you should ask if the student has registered the disability with the SDC. If not, ask the student to do so as soon as possible because accommodations cannot be made for students who are not registered, even if they have a medical note. Second, if you are unsure about what you may or may not do or how to go about accommodating the student, ask the instructor of record and/or the SDC. Third, maintain your student’s confidentiality, and try to not draw unnecessary attention to a student’s disability unless he or she confirms that it is okay.

**What should I do if a student makes an inappropriate and offensive comment during class?** Part of creating an inclusive classroom environment is modeling how to be respectful, so it’s important that you take action and not ignore the behavior, or else it may get worse and potentially affect other students. Depending on the situation, you may consider the following measures:

- Acknowledge the comment and explain why it is inappropriate and offensive from an academic standpoint (e.g., lack of evidence, outside the scope of the discussion, illogical reasoning).
- If you have established participation guidelines (it is a good idea to do so during your first day...
of class), point out how that comment violates them. Use and refer to the UCD Principles of Community as part of those guidelines.

- Speak with the student alone after class, but make sure you also take action that addresses what happened with other students who heard and experienced it.

Where do I send my ELL students to get help, or is it my responsibility to help them with English grammar, writing, and/or speaking? Depending on the instructor of record and the course objectives, it may or may not be part of your responsibility as the TA to support ELLs’ writing and English development. You should speak with the instructor of record to understand your expected responsibilities regarding this issue. Also, you can refer your ELL students to the Student Academic Success Center (2205 Dutton Hall; http://success.ucdavis.edu/), which offers ESL and writing workshops.

May I assume that my students will have technology to bring to class?  
May I assume that my students will have internet access outside of class? All UC Davis students are expected to have their own computers that can connect to the internet. However, some students may have desktops and not laptops, and not all students have internet access at their residence. Therefore, if you do decide to do an activity that requires computer access during your class, either 1) Ask all students to bring a laptop, if they have one. Then put students in pairs or small groups to ensure that at least one member has a laptop, or 2) Reserve a computer lab classroom on campus. Also, make it known to your class when and how you will post information, assignments, etc. so that students can plan accordingly. You can also point out (in your syllabus or in class) nearby computer stations that students have access to.

When is it my responsibility to meet the needs of my students and when should I refer them to the instructor of record? Most of the strategies and suggestions provided in this guide are meant for you to incorporate into your classroom or your office hours. However, there may be things out of your control (e.g., curriculum), situations beyond your expertise (e.g., emotional counseling), or accommodations beyond your responsibility (e.g., closed captioning on course materials) that may require support from the instructor of record and other campus organizations. When in doubt about whether or not you should support a student’s needs and how to best do so, contact the instructor of record or refer to one of the resources listed under “Campus Resources” at the end of this guide.

To find computer labs for your class and/or open computer stations for your students, visit UC Davis Information and Educational Technology.
CHAPTER 3: ASSESSING LEARNING AND GRADING STUDENT WORK

What is the Difference Between Assessment and Grading?

How Can I Check for Student Understanding?
Creating and Using Rubrics
Incorporating Formative Assessment Techniques in Your Classroom

How Can I Grade Students Fairly and Effectively?
Strategies for Grading Effectively and Efficiently
Strategies for Providing Meaningful Written Feedback
Communicate Assignment and Grading Expectations

Frequently Asked Questions
CHAPTER 3: ASSESSING LEARNING AND GRADING STUDENT WORK

What is the Difference Between Assessment and Grading?

One of the most common concerns expressed by new TAs is how they will know whether students are learning. The good news is that you do not have to wait until you are engaged in formal “grading” to find out what your students are (or are not) learning. This chapter provides useful strategies for gathering information you need about your students’ learning while you still have time to make adjustments or clarifications that will benefit your students. At UC Davis, assessment is viewed as research into learning, so it is important to spend a few minutes clarifying key terms. The more clearly you understand the different purposes and approaches available to you, the more effective you will be at communicating your expectations and documenting students’ progress toward meeting your goals for their learning.

Assessment and grading are often conflated, but they are not necessarily interchangeable. Assessment is the process of collecting and using evidence of student learning to provide instructors with information about some aspect of teaching and learning. Using the course-level assessment strategies described below, you will have the information you need about whether you can move forward with a particular topic or activity or whether students need more time to discuss or practice. Many of these tools will also help you to provide timely and useful feedback to students, to use data to assign grades, and to record data related to students’ achievement of the course learning outcomes determined by the instructor of record. The assessment tools you select should always be aligned to these course learning outcomes and should yield information to support your teaching and your students’ learning.

There are three general functions for assessment within courses: diagnostic, formative, and summative.

- **Diagnostic assessment** takes place prior to instruction. For example, at the beginning of a course or class meeting, it can be useful to gather information about students’ prior knowledge. Examples of diagnostic assessment include: a summary of what a student knows about the course topic (poll or minute paper) and concept inventories, all of which measure students’ existing content knowledge. Asking students to consider what they already know (or think they know) about a topic also supports metacognitive development.

- **Formative assessment** takes place during instruction, and involves gathering information from and about students and using that data to make adjustments to your teaching and/or the pace of the lesson. You can also use the data to identify students’ misunderstandings right away, allowing you to re-teach concepts or skills. For example, in a lab setting, ask each person to demonstrate safety procedures, using an observation checklist. Or, at the end of a discussion, ask students to write a one-sentence summary of an important take away. If you discover that a majority of the students do not understand an important step or the main objective of the discussion, you can spend instructional time addressing the specific issue. In addition to the list of formative
assessment tools listed below, you may consider using homework, drafts of lab reports or essays, and/or problem sets as sources of formative information.

- **Summative assessment** provides a snapshot of student learning at a particular point-in-time (usually at the end of a course or program). Data from summative assessment can inform planning for the next term and be included in final grade calculations. While as a TA you may not be responsible for designing summative assessments or calculating grades, it is useful to know what summative assessment is planned for the course so you can help prepare your students to be successful. Common examples of summative data include final exam scores, final grades for papers, projects, and/or presentations.

“Quick in-class assessment activities can be a really valuable way of checking for student understanding! I often have students work in groups while I walk around the room to quickly gauge how well they are understanding the concepts.”  
— Christy Cahill, TA, Political Science, TAC 2014–16

**How Can I Check for Student Understanding?**

Checking for understanding is not the same thing as grading students. It is beneficial to you and your students to check understanding periodically and to provide students with feedback on their learning. A variety of tools can help you document your students’ knowledge, skills, and/or abilities throughout the quarter and within each class session. Keep in mind that the assessment tools you choose should align with the course learning outcomes for what you (and the instructor of record) want students to learn and to be able to do.

**Creating and Using Rubrics**

A rubric is a tool that establishes criteria and expectations for a given assignment. Rubrics come in many forms (tables, checklists, etc.) and serve different purposes. Depending on the goals for the course, you and the instructor of record may choose a **holistic** or **analytic rubric**.

**Holistic rubrics yield a single score**, which represents the whole performance of the assignment. For example, you might articulate the expectations for an “A” paper compared to a “B” and “C” paper in a holistic rubric, and then assign the grades based on how the student work compares to these expectations. They can save time for the grader, but only provide general information, which may be difficult for students to apply to present and future assignments.

**Analytic rubrics specify at least two criteria**, which are assessed at different performance levels. Analytic rubrics include detailed descriptions and expectations of the performance at each level. For example, you
could use an analytic rubric to specify the required components of a lab report (e.g., methods, results, data tables) and communicate the levels of performance (e.g., exceeds expectations, meets expectations, developing, needs improvement) for each component. Using an analytic rubric will allow you to identify strengths and weaknesses by criteria and provide useful information to students. Analytic rubrics also:

- Speed up the grading process;
- Provide “actionable” feedback, so students can see which criteria they are missing or need to improve upon;
- Increase equity in grading; and
- Promote metacognition (student awareness of their own learning).

It is recommended that you make a copy of each student's rubric before handing it back (for possible grade disputes and for future reference).

“When developing a rubric, make sure that you follow your professor’s requirements. After you have a rubric, be consistent. After you have made your expectations clear, it is up to the students to perform accordingly.”

— Douglas Worley, TA, Native Studies, TAC 2015–16

If your instructor of record does not provide you with a rubric, follow the steps below to create your own or adapt an existing rubric:

**Steps for Creating a Rubric:**

1. Define the purpose of the assignment.
   a. Is it to provide feedback?
   b. Is it to check for understanding?
   c. Is it to identify errors?

2. Define your expectations.
   a. What is the exact nature of the task students will complete?
   b. What knowledge, skills, and/or dispositions will students demonstrate?
   c. What evidence do you need to see to determine whether students have accomplished what you hoped they would accomplish when you created the assignment?

3. Identify the criteria the assignment addresses.
   a. For an essay, the criteria might include: content, organization, language, and conventions.
   b. For a lab report, the criteria might describe the expectations for each of the required components, e.g. abstract, introduction, methods, materials, results, discussion, and conclusion.

4. For each criterion, write a detailed description of expectations for each performance level (e.g., Below expectations, Needs improvement, Meets expectations, Exceeds expectations).

5. Determine whether/how to weight the criteria (e.g., Format = 10%; Communication = 20%; Evidence/development = 35%; Organization = 20%; Style & mechanics = 15%).
Incorporating Formative Assessments in Your Classroom

The following is a list of formative assessment tools that you may use to gather information at different points in a course, depending on the question you want to answer. Choosing the right tool depends on the course learning outcomes that the instructor of record has defined, and what you want to learn about your teaching and your students’ learning.

Assessing Prior Knowledge, Recall, and Understanding:

- **Minute paper.** Ask students to write for a minute or so on a question that you pose. Choose a specific question, or ask them: What is the most significant thing you learned today? Students can submit responses anonymously or for participation credit. This allows you to determine what students think is most important, and how that aligns with your goals.

- **The muddiest point.** Ask students to write what was the “muddiest point,” or most unclear concept, in the lecture, discussion, presentation, homework, reading, film, etc. They can do this before they come to class about material they have reviewed outside of class, in the middle, or at the end of a class meeting. This provides you with feedback on what students find most confusing, and helps students reflect on what they do not understand.

“Students will greatly benefit from understanding how they can improve for the next time. This doesn’t mean you need to outline every mistake or provide every single correct answer! Perhaps adding some leading questions that will prompt deeper thinking will lead them on the right path. Not only that, it is also good for students to see what they are doing correctly so that they keep up that method of thinking. Sometimes it’s as simple as a few sentences underlined and a ‘Correct!’ nearby.”

— Joya Cooley, TA, Chemistry, TAC 2015–16

- **Instant or online polling.** If the concepts that you are discussing can be reviewed accurately through multiple choice, ask students to respond to questions during class using anonymous online polls (www.polleverywhere.com or www.socrative.com), Google Forms, or clickers. This lets you see how well students understand concepts in real time, and provides students with feedback on their understanding when the answer is revealed. Students can also participate in online polls and quizzes before or after class to get feedback on their background knowledge, their preparation for class, or how well they understood material covered in class. For a low-tech version, have students close their eyes and raise their fingers to indicate level of understanding or which number they think the answer is. Or use colored note cards or construction paper as a way to indicate the answer.
Assessing Skills in Application, Synthesis, and Critical Thinking:

- **The one-sentence summary.** Ask students to answer the question “who does what to whom, when, where, how, and why?” about a given topic, and then to synthesize their answer into a single informative sentence. This provides feedback about how students can summarize a large amount of information concisely and completely. This works well when there is information that can be summarized in declarative form, such as in historical events, political processes, plots of stories or novels, chemical reactions, and mechanical processes.

- **Concept maps** (mind maps or diagrams or flowcharts). Students map out how concepts or a process are related and organize them into a framework. This presents a “big picture” view of students’ understanding, and can help them make connections between ideas that they have learned on their own and that you have focused on in class. Concept maps can be created by hand or online with tools like, Text 2 Mind Map (https://www.text2mindmap.com/).

- **Case study.** Case studies describe potential scenarios where a decision needs to be made regarding a problem, a patient, etc. Present students with case studies and ask students to think about how they would solve the issue drawing from what has been covered in class or the textbook. You may introduce a topic using a case study and refer back to it throughout your class, assign them for homework, or use them to generate a discussion. Case studies are ideal for building analytical thinking skills and applying content knowledge to real world problems.

- **Guided peer review.** Have students provide feedback to his/her peers on a draft of an essay, a project proposal, or a lab report. Provide students with a checklist of items or questions that you or the grader will be looking for when they submit their actual assignment so that students can review his/her peer’s work to see if all of those elements are present.

- **Pro and con grid.** Students jot down a quick list of pros and cons on a particular topic or issue. This takes students beyond their first reactions, to search for at least two sides to an issue or claim and weigh the value of competing claims. The exercise provides you information on the depth and breadth of students’ analyses and capacity for objectivity.

Assessing Personal Learning Strategies and Progress:

- **Learning journals.** Students keep journals that detail their thoughts about the class, and can turn them in several times throughout the course so you can track their development. You can ask students to focus on course knowledge or skills, or on their learning process and personal attitudes and values.

- **Exam/Homework wrappers.** Students are given short handouts to complete when their exam is returned to them. These post-exam reflections guide students in reviewing their performance, instructor feedback, and future exam preparations. Additionally, some assignments could have reflection questions before and after the assigned questions or required work.

Assessing Student Learning Outside of the Classroom:

- **Online discussion forum.** Pose reading or content questions or a problem online and ask students to answer and solve them and/or provide feedback on what other students have written. You can provide hints along the way, and get an idea of how students are thinking about the problem and identify areas that you may need to clarify and review during class. Oftentimes learning management systems have a discussion forum tool, or you can use a free online Q & A platform, such as Piazza (www.piazza.com).
Despite what most of us have been told, a grade is not a complete representation of learning. Keep in mind that, in addition to assessment of student learning, grades often include behavior-related information (e.g., attendance, participation, punctuality).

- **Ungraded online quizzes.** Prepare short, ungraded online quizzes on the reading or lecture to get a better grasp on what your students are struggling with. This can help you identify which areas to cover during your class and can help students identify for themselves what they are unsure about. Most learning management systems have a Quiz tool, or you can use a free online quiz site such as Quizlet (www.quizlet.com).

**How Can I Grade Students Fairly and Effectively?**

One of the main responsibilities of a TA is to grade student work, including exams, quizzes, papers, labs, and problem sets. Before grading, you should always speak with the instructor of record to ask about the grading criteria. In some instances, the instructor of record will provide you with a rubric, or a set of assignment-specific criteria with their relative importance in relation to the overall grade, which will help you be consistent and efficient when grading student work. If the instructor of record allows you to set criteria for grading, then you may want to develop your own assessment tools for the same reasons. If the instructor of record permits, share these tools with your students to help focus their efforts and to emphasize that you grade in a manner that minimizes subjectivity.

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**STRATEGIES FOR GRADING EFFECTIVELY AND EFFICIENTLY**

- **Review the grading criteria** before you begin.
- **Grade as anonymously as possible.** For example, ask students to write their names on the back of the page.
- **Skim five or more students’ papers or lap reports before you begin grading in earnest.** This preliminary reading will give you an idea of the range of answers you will encounter.
- **Set a maximum time limit for grading each answer, section, or paper.** This way no response gets more consideration or scrutiny than another.
- **Grade all students’ responses to one question or section before moving on to another.** That way you are familiar with the questions and the answers that you are looking for.
- **Make stacks of papers containing responses that are of similar quality and then review them for consistency before marking points on the paper.**
- **Grade when you are fresh, taking breaks as necessary.** Being sleepy, hungry, or anxious about time does not promote efficiency or fairness.
- **Return to the first few assignments that you graded to check for consistency.** If it is not consistent, fix it!

If you are part of a team of TAs grading an assignment, **hold a “norming session”** to ensure uniform grading standards and marking procedures. Often TAs will divide the grading tasks so that one TA grades all the students’ answers to the same question. Grade a few exams or papers together, discussing your evaluations of each question. Develop a rubric together if one does not already exist (see above for information about rubrics).
STRATEGIES FOR PROVIDING MEANINGFUL WRITTEN FEEDBACK

**Make your comments in the margin sparse and legible.**

Avoid writing “No!” or marking mistakes with a large red “X.” Instead, pose a question that may help students think more critically about their answer.

**Distinguish between correcting and commenting.** Note errors, but do not fix them for the student. Instead, respond with comments that encourage students to think through the process of revision (e.g., “An early error fouled up subsequent calculations, but the process is correct”).

**Praise students when appropriate** so they know what they did well (e.g., “Good logic” or “Excellent presentation of data”). Link their accomplishments with the course objectives and expectations.

**Focus and align your feedback** to the learning objectives of the assignment.

**Consider writing final comments** that include your main observations about the assignment, that provide suggestions for further development, and that explain the grade.

- Begin your end comment by addressing the student by his or her first name.
- Acknowledge the strengths. For instance, “Alex, you do a very nice job connecting the various elements of your argument”.
- When offering positive feedback, try to refer to specific examples in the assignment. This aspect of the comment demonstrates that you recognize and support what the student has done well.
- Concentrate on one or two global problems to help the student see where s/he can make the most improvement. Use questions to help direct the student to deeper thinking.
- Offer concrete suggestions for improving the assignment. For instance, “More explanation of the connections between the evidence and your assertions would make this essay stronger. For each example, ask yourself, ‘How does this evidence support the point I’m making?’”
- If there is an on-going problem throughout the assignment, refer to it broadly at the end.

**Determine if mistakes are individual or for all students.** If several students are making similar errors, it may save you time to address them to the whole class either via email, during class time, or on a handout given to students. Invite your students to come to your office hours for additional help, or if many of your students are struggling with their writing, refer them to the Student Academic Success Center (http://success.ucdavis.edu/).

Communicate Assignment and Grading Expectations

Students who understand what is expected of them are better equipped to assess their own mastery, seek assistance as needed, and make progress toward successfully completing an assignment or course. When you explain what you expect ahead of time and provide opportunities to ask questions, you may be able to decrease the possibility that a student might dispute a grade. By establishing and communicating expectations, you ensure that your evaluation of students’ work is based on specific criteria, which are aligned to the particular assignment. This clarity promotes consistency in your grading and can help to make grading more efficient. In some cases, the instructor of record will introduce the assignment and expectations to students, but for assignments specific to your section, it is your responsibility to communicate expectations to students before they begin an assignment.
• Clearly articulate the learning objectives of the assignment before it is due. The percentage weights for grading the various components should reflect those objectives. For example, if the primary goal of an essay is to clearly communicate factual material, creativity should not be heavily weighted.
• Decide in advance the importance of factors such as grammar and spelling, and make sure your students know how to access support if they want or need it.
• Whenever possible, include your grading rubric or written criteria so students know your expectations.
• Include a checklist of what you expect the students to submit, in which format, length, etc.
• Provide examples and/or a model of the assignment in order to familiarize your students with the content and proper format (e.g., lab report, 5-paragraph essay).
• Spend time in class going over the requirements and answering questions. Depending on the assignment and to avoid redundancy, it may be helpful to start a discussion thread on the learning management system so that students can post questions and everyone can see your responses.

Frequently Asked Questions

What should I do if a student complains or disputes a grade? Since many TAs are not the instructor of record for the course, students have a right to have your grading of their work reviewed by the instructor. That review process will be at the discretion of the instructor of record, and you should ask them how to handle such requests. Again, it is important to keep all records of student grading and any grading-related communications with the student.

Should I return papers and exams at the beginning or at the end of class? When you return student work depends on whether you plan to review and talk about it. If you intend to review parts of the assignment or exam, then you should allot time during class to do so. If not, you may want to wait until the end of class to return papers and exams since students may: spend most of their time looking over the assignment during class, be upset about their grades and be unmotivated to participate during class, or just leave.

What should I do if I am having difficulty grading the content of an assignment because it is incomprehensible? In order to avoid bias, you should seek a second opinion on the comprehensibility of the assignment, speak with the instructor of record or another TA and ask if they understand what the student is trying to convey. If they agree that the content is not being communicated, then the assignment has not been completed successfully and you may consider grading it as an incomplete assignment. Comment to the student where you were confused and why, and refer them to the Student Academic Success Center (http://success.ucdavis.edu) for further assistance.

What do I do with grades? Although most record keeping is now done on computer spreadsheets, it is important to keep paper back-up copies of all your records to protect against computer crashes or stolen laptops. Careful and thorough record keeping also protects both you and the student, and makes it easier to handle grade disputes. For example, if a student goes to the instructor of record claiming her D grade was the result of your dislike for her, all the instructor has to do is review the student’s grades in the grade book. Ask your instructor of record if s/he has a specific protocol for recording grades. S/he may ask you to keep your records on-line through the learning management system so students can access their grades at any time. For help with the learning management system, contact Academic Technology Services (ATS; http://ats.ucdavis.edu/).
What is FERPA and how does it apply to my responsibilities as a TA? According to FERPA, every UC Davis staff and faculty member, including TAs, must protect the privacy of paper and electronic records containing confidential student information. Even parents are not allowed to access records unless they have written consent from the student. Without written student consent, grades may not be publicly posted, and papers/exams may not be publicly distributed by methods that disclose confidential information. This includes posting grades outside class/office or distributing papers in class or bins outside classrooms/offices if they contain personally identifiable information. It is illegal to use all or part of a student ID or social security number as an identifier for posting grades/distributing papers. As such, we suggest that you release grades to students on Smartsite, use unique identifiers assigned just for your class, or hand back papers/exams directly to the student at the end of class. If you have additional questions or want more details, contact Student Judicial Affairs (SJA) at (530) 752-1128 or http://sja.ucdavis.edu.

“How fast should I grade and return student work? First, you should always check with the instructor of record to see when s/he would like you to finish grading an assignment. If there is no deadline, you should try to grade in a timely fashion so that you can return students’ work before the next big assignment or exam so they will have an opportunity to learn from your feedback.

How should I grade group/pair work? If the instructor of record doesn’t have a grading criteria or rubric for grading group/pair work, then you should create one that includes specific guidelines of how you will assess their work and whether you will give them a single grade for the whole group, individual grades, and/or both. Make sure to communicate how you will grade group work to students before they begin working on the assignment.

What should I do if a group tells me that one of their classmates did not do their share of the assignment? Before you make any assumptions about who is right or wrong, you should speak to (or email) each member of the team in order to get a better understanding of what may be going on. Sometimes one or two members of the team may be marginalizing other members and not including them in the process for whatever reason. Depending on what is really going on, you may ask each member of the group to identify what they have contributed to the assignment and

“Typically for essays, I sandwich the top two or three items that need improvement (citing specific examples) between two positive aspects of the paper. When I turn back exams, I find it useful to enforce a 24-hour ban on discussing their grade with me so that students have time to let my comments sink in. I always make sure to mark where the student did well, areas they need to work on, and, importantly, how they can improve.”

— Laurel Richardson, TA, History, TAC 2015–16
what they believe the other members have contributed as well. You may also ask students to grade themselves and their teammates at the end of the assignment and tell them that you will use their evaluations to determine the final grade. If you are still struggling with how to handle the issue, speak with your instructor of record, more experienced TAs, or request a consultation with the TA Consultants (http://cee.ucdavis.edu).

**What if I suspect plagiarism or cheating?** Handling cheating can be awkward, but your role as a TA is to protect the students who are not cheating by responding to the students who are (or who you think might be). The policy at Student Judicial Affairs (SJA) is to raise students’ academic integrity, so reporting plagiarism or other cheating can also help the student develop more ethical habits for college and beyond.

- As a preemptive measure, explain to students what your (or your department’s) definition of cheating is, remind them that you and UC Davis take cheating seriously, and discuss how you (and your department) will handle problems with cheating/plagiarism. Do not assume that “Don’t cheat!” will suffice as a discussion. Be prepared to have a frank and specific discussion with your students, as definitions/understandings of plagiarism vary across disciplines and across cultures. Be sure that you include a specific definition of what cheating/plagiarism means in your syllabus or on the first day of class. Students may be less likely to cheat if they know you have policies addressing the problem and the high cost of the consequences for cheating.

- All suspected cases of plagiarism and cheating must be turned over to Student Judicial Affairs (http://sja.ucdavis.edu/reporting-misconduct.html). This is usually the responsibility of the instructor of record. Before submitting anything to SJA, you should get in touch with the instructor of record. Once SJA has received documentation regarding the case, they will make a decision regarding culpability and they will recommend a course of action. SJA will recommend to the instructor what kind of grade penalty the student should face and will determine if a student should face other penalties such as academic probation or community service. The TA and the instructor do not have to speak with the student about the case; SJA handles all communication with the student.

- If you do experience a situation where you suspect a student of cheating, make sure to get all the evidence you can: e-mails, a detailed account of what you saw and/or experienced, another witness, a copy of a plagiarized text or exam, etc.– and share this with the instructor of record and Student Judicial Affairs (SJA).

- Keep in mind that you shouldn’t verbally accuse a student of cheating in front of their peers or in private (even if you feel you have overwhelming evidence). You CANNOT take an exam away from a student in the middle of a test, even if you suspect or witness cheating. You CAN have a student move to a different location in the middle of an exam. Let the student finish the exam and take note of the time of the occurrence or where on their exam you saw the incident occur.
CHAPTER 4: CLASSROOM STRATEGIES

How Can I Engage Students and Promote Participation?
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Frequently Asked Questions
CHAPTER 4: CLASSROOM STRATEGIES

How Can I Engage Students and Promote Participation?

Your role as a TA is to facilitate learning, so you should organize your section to ensure that students are engaged and participating, and that the learning outcomes are being accomplished. As mentioned in Chapter 2, students learn best when they are engaged with the content, their peers, and the instructor; all of which leads to deeper understanding of the material and greater retention. Student’s participation in class also provides you and your students regular feedback on their learning, allowing you to modify your instruction if they are not learning what you had intended, and making them aware of their own progression. Two effective approaches for engaging students and encouraging participation in your classroom are to: 1) create an inclusive environment and 2) use active learning techniques.

“View teaching as communicating with learners. Discover what they want to know and what they already know.”
— Jae Wook Jung, TA, Economics, TAC 2014–16

Incorporating Active Learning Techniques in the Classroom

Active learning is the process whereby students engage in activities, such as writing, reading, discussing, or problem solving, that promote analysis and synthesis of course content as it relates to what you want your students to learn and to be able to do. Compared to passive lecturing, research has shown that active learning increases understanding, retention, and overall enjoyment of the class. The following are a few activities that you can incorporate to promote active learning in your classroom.

At the Beginning of Class:

Free answer: Call out a question to the class (i.e. “what do you know about WWI?”) and ask them to write answers on the board, post its, poster board, etc. If the class is a large lecture hall, try an online polling system like PollEverywhere (http://www.pollev.com) or use clickers. You should ask questions that promote analysis and synthesis of the material. For example, you may ask students to summarize the reading, to predict how the new topic connects with the previous one, or to connect the new topic with the course objectives.
Connections: Ask students to come up with a personal anecdote relating to the course material for homework and come to the next class prepared to share with others. Have students discuss with a partner. Possibly call on a few students to share their anecdotes with the entire class.

Mood music: When students arrive to class, play a contemporary song that draws upon themes represented in a text/movie that students were assigned for homework. As students listen to the song, ask them to write down how the themes of the song are similar to or different from the themes of the text/movie they read/saw. Call on several students to share.

During a Lecture/Presentation:

Think-pair-share: Stop in the middle of a presentation and ask students a question. Have them think and jot down ideas on their own for a few minutes. Afterwards, ask students to discuss their answers with neighbors. Then have a few pairs share their ideas with the class.

Think-convince-share: A question with several possible answers is posed to the entire class. Students vote on what they believe to be the right answer, and then turn to their neighbors to compare answers and persuade each other to agree on the correct answer. The class votes again and, hopefully, it becomes visible which answer is the correct one.

Use your listening ears: Before explaining something, ask students to put their pens down and just listen. Present material for 5-10 minutes, then give students a few minutes to write down the significant points they remember. Afterward, have them discuss those points with a partner or small groups so students can confirm their memory of the important points.

Anytime:

Role-playing: Ask for 2–5 students to role play a scenario or a process related to a concept from class. You may ask them to role play in front of the entire class or in small groups.

Live debates: Ask 2–3 students to partake in a debate in front of the entire class or in small groups. Allow the debaters time to make their arguments and offer rebuttals. Then ask observing students to vote on which side they agree with more at that moment. Call on a few students to explain why they voted the way they did.

Quartering lecture: Divide your class into quadrants or sections. Throughout the class period, move to each section of students and engage in a discussion with only that group while other students are required to listen and answer questions and/or be prepared to summarize the main points. It is important to carefully plan for what the other students will be doing while you are only engaging with one section of your class, or else they will be disengaged.
Student engagement requires pushing students outside of their comfort zone. By creating an inclusive, positive learning environment, students will be more willing to take risks and participate in class because they will feel less intimidated by the material, less afraid of making mistakes, more supported by the instructor, and more connected to their classmates.

The following are strategies to help you create a positive classroom environment starting on day one.

**Build relationships with your students and help them develop relationships with one another** with one another “get-to-know-you” activities on the first day(s) of class. Here are a few examples:

- **Introduce your partner:** Pair students up and give them two minutes to interview each other. You might ask them to share their favorite toothpaste, cartoon, or animal, what they want to be when they ‘grow up’, why they are taking your class (something beyond ‘this is required for my GE, major, minor’), etc. At the end of the interview, students take turns introducing their partners to the class.

- **Items in common:** Randomly place students in groups of three to five with people they do not know. Each group has five to ten minutes to discover the most unique thing(s) that they all have in common. Each group then shares with the rest of the class.

- **Two truths and a lie:** Each student writes down two truths and a lie about themselves in random order. Then form groups of four to seven students and have each person share the three ‘facts’ and the group must decide which one is the lie.

- **Bingo:** Draw a 5 x 5 square grid on a sheet of paper. In the center space, write ‘free,’ and in each of the other spaces write an experience that some students in your class are likely to have had (e.g., drink coffee, have a birthday in January, been to San Francisco, speak a language other than English at home, etc.). Give students copies of the bingo cards and instruct them to find another student who has had one of the experiences listed on the card. When they find a student with a matching experience, they should write that person’s name down. The first student with five different names signed across, down, or diagonally wins (only four names are necessary if the ‘free’ space is included in the row). If time permits, ask a few students to share what they found out about their classmates’ experiences.

**Utilize pair and group work.** Small group or pair work is advantageous for several reasons. It allows quieter students to speak up in a more intimate setting, fosters student cooperation, creates an environment where students learn from one another, and will help your students get to know each other. As students become more comfortable with each other and with you, they will be more willing to speak up. Often some of the best participation occurs when the teacher is not part of the discussion.

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**Diag Deeper**

Go online for ideas on how to incorporate writing activities in classes across any discipline.
Leading a Discussion

Discussion is a teaching tool that can be employed across disciplines, settings, and formats to engage students and to promote additional opportunities for participation and for demonstrating understanding. Discussion may include the entire class, small groups, or pairs. For instance, you may start a lab with small group discussions to review the concepts applicable to that day’s experiment or end a lab with a class discussion on the real world implications of the results. During section, you may have pairs respond to guiding questions before convening in a whole group discussion about a text, a painting, or a case study. Or you may have students individually free write prior to a group discussion. The following are a few strategies to help you lead an effective and lively discussion in your classroom.

“The most exciting, memorable moments from the classes that I have taught usually involve me saying very little and the students saying a whole lot.”
— Kelly Neil, TA, English, TAC 2012–14

Before the Discussion:

If there is a participation grade, be clear about how you will grade students and consider using a participation rubric.

Plan guiding questions for the discussion.

• Use both open and closed questions. Open questions have many correct answers. For example, ask, “What things have you heard about genetically engineered foods?” or “What are some requirements of a healthy diet?” Closed questions have only one answer to be correct. Simple closed questions, such as, “How many chromosomes does the normal human body cell contain?” can be a great way to get students warmed up. As students start participating, continue to ask meaningful open questions, and avoid closed questions like “What is the brand name of the most commonly grown genetically modified corn?” that take memorization but little or no contemplative thinking.

• Ask questions that elicit different levels of thinking. Begin with questions that require students to recognize or recall information, then, using data elicited by your initial questions, progress to asking questions that require more complex thinking. Ask questions that require students to rearrange information, describe something in their own words, or that require problem solving. Questions that require the student to find similarities and differences, to construct an explanation, to draw an inference, make a prediction, or evaluate options all elicit higher-level thinking. For example, “How is a healthy diet for children different from a healthy diet for adults?” or “Who will benefit and who will suffer from this rapid switch to genetically engineered corn? Why?”

Dig Deeper

Go online to find an example of a participation rubric.

Dig Deeper

Go online to learn about Bloom’s Taxonomy for asking questions that build in cognitive complexity.
Prepare students for the discussion. Ask students to respond to questions or to write a short reflection to the reading before class or at the start of class. Individual free writing can also promote discussion and give students an opportunity to think of ideas.

Rearrange the seating in the classroom if possible. Having students sit in a circle can be a powerful tool for encouraging students to engage with and respond to each other and not just the instructor.

If applicable, speak with other TAs in the same course to share materials/resources and to maintain consistency across sections.

During the Discussion:

Create a comfortable atmosphere by learning students’ names and encouraging them to get acquainted with each other (see the previous set of “Strategies on Creating a Positive Classroom Environment”).

Make the goal of the discussion clear. Write a bulleted list of goals on the board to help keep everyone focused.

At the beginning of each class, remind students where you are in the course and give a short summary (one or two sentences) of last week’s discussion to provide a sense of continuity. You may also have students do this in pairs or have a few students volunteer brief summaries by asking, “What are the major points we covered last time?”.

Vary the type of discussion format. Apart from a discussion with the entire class, consider having an online, small group, or pair discussion instead. This will promote discussion overall and give more students an opportunity to participate and demonstrate their knowledge.

“My first discussion was completely unsuccessful! I began guiding discussion based on the reading but had NO response from students. Even though most had done the reading assignment, they were not prepared to fully comprehend it. Now before reading assignments, I make sure students are prepared with background information to help them critique and discuss the texts.”

— Dalia Magaña, TA, Spanish, TAC 2011–12

Ask follow up questions that keep the discussion going. Better yet, encourage your students to ask them of each other or build on one another’s responses.

Allow for ample wait time. Ask a question, pause, and count to ten silently. Students need time to process before answering. If the question is very lengthy or complex, give them some time to write their answer before asking for a verbal response.

Whenever possible, attribute specific comments to the students who originally made them. This strategy demonstrates that you’ve been paying
attention to the discussion and value each student’s contribution.

**Encourage non participants.** Be aware of students who have not spoken and ask them personally to add something or ask them to participate in simpler tasks, such as reading a part of the text or the instructions for an activity. You can also say, “I’d like to invite those students who have not spoken yet to share their thoughts” without calling out a specific student.

Use the board, document projector, or computer to **outline where the discussion has gone.** Structure your notes by using headings, and boxing or underlining the main points. Consider photographing or scanning the resulting notes and emailing or posting them on the learning management system for your students to review.

**At the End of the Discussion:**

**Debrief and do a wrap-up activity** to keep students attentive and motivated to listen and participate in the discussion. This may include asking students to help summarize the main points of the discussion.

**Check for student understanding** and keep students accountable with a formative assessment technique.

**Set up the next class.** Tell students what questions or issues they should keep in mind and what they need to do to prepare for the next discussion.

**Leading a Lab**

Lab sections are designed to develop students’ observational and technical skills, introduce fundamental ideas, facilitate critical thinking, allow students to apply ideas from lecture, and provide opportunities for group learning. Oftentimes, the TA’s role in the lab is to model activities and to guide students through their hands-on learning experience. Below are strategies to help you organize your lab, motivate your students, and encourage deeper learning.

“Make sure you are comfortable in the lab before your students get in there. If you have questions, ask a supervisor or an experienced TA. You want your students to feel that you’re confident in what they’re doing so that they can be confident in what they’re doing.”

— Joya Cooley, TA, Chemistry, TAC 2015–16

**Before the Lab:**

**Establish the specific goals of the lab and how you will evaluate students.** What skills will students develop during the lab? What concepts will they be able to practice or apply? How do the goals of this lab relate to other class topics or previous labs? How will you evaluate that students have achieved these goals? Speak with the instructor of record to identify the goals, or you may have to write them yourself.

See Chapter 3 for strategies for incorporating formative assessment techniques in the classroom.
Get advice from experienced TAs who have taught the lab before and connect with other TAs for the same course. Find out what potential problems you and your students are likely to encounter and how you and your students might best overcome these problems. If applicable, speak with other TAs in the same course to share materials/resources and to maintain consistency across lab sections.

**Complete the lab exercises.** This will help you anticipate where students may have questions and allow you to become familiar with any equipment and procedures.

**Prepare an outline of the lab activities,** including how much time each should take. Determine what students should achieve during the lab period and what they can finish on their own following the lab.

**Prepare an introduction.** What background theory or procedures will students need before they can begin the lab on their own? Do students need all of the information at the beginning of the lab, or can you introduce important ideas at different points throughout the lab? How will you connect the lab with lecture content or with real world applications? You may want to prepare a handout that highlights the key theoretical, procedural, and safety points. (See “Presenting Information Effectively.”)

**Communicate with students about any preparation they should do prior to coming to lab** (e.g., reading material, pre-lab activities, pre-lab questions) via the learning management system, email, or at the end of the previous lab section.

**Prepare questions** that you can ask students in order to encourage deeper understanding of the lab activity.

**At the Beginning of the Lab:**

Write the goals of the lab and the outline for the day on the board and leave them there the whole time lab is in session.

**Start lab on time.** Starting late encourages students to arrive late.

**Give a brief introduction to the lab,** why the topic is important, how it relates to the lecture, and any real world applications. You might also introduce new methods and terminology and illustrate your points with graphs, drawings and visual examples.

**Orient students to any safety issues for the lab.** Give students an opportunity to practice with equipment and procedures before using them in potentially dangerous exercises.

**Demonstrate any new techniques or methods** (to the whole class or in small groups). Or let students demonstrate the equipment or set up materials for their peers.

**Outline your expectations for their lab work.** What information should they include on their lab write up? Will you be looking for their thought process? Should they show their work? Are you looking for complete sentences and clear writing, or do you prefer to see bullets, tables, or sketches? If you will be using a rubric to grade them, give this to them before they begin the lab.

**Let students know what you expect for how they will work together.** Will you assign groups or let them choose? Do you expect them to help everyone in their group understand the lab activity and concepts before they move on? Help students work effectively in groups by assigning particular tasks to each student in a lab group. Rotate the tasks during the quarter so that everyone has the chance to use equipment, record data, and present to the class. If students are turning in individual work, ask them to write the names of their lab partners on their assignment so you can review their collaboration.
(This also helps to make grading more efficient and to determine if all students are doing their own work.)

**During the Lab:**

Walk around the lab and divide your time between all lab groups. Be approachable and willing to answer questions, but do not just give students the answers. Try to identify where they are stuck and help them move forward from there by asking questions and encouraging them to help each other. Help students budget their time appropriately by letting them know what they can finish later and what they need to finish during the lab. Instructors tend to focus their time with students who are most demanding or most sociable, so make an effort to distribute your attention equitably.

“Once two people have asked the same question, stop EVERYONE and announce it to the whole lab. That will prevent more students from asking the same thing.”
— Tim Shelton, TA, Chemistry, TAC 2014–15

**Encourage deep understanding.**

- When you visit a lab group, check in with them by asking them specific questions about how it is going or what they are understanding, rather than just asking if they have any questions. Probe them on their deeper understanding of the work they are doing. For example, ask them why their results might be different than expected, how the procedure they are doing relates to the theory they have learned about in class, or if their answer is reasonable and why.

- Ask students to explain concepts to one another to help them understand (everyone learns more by teaching) and to make sure everyone in the group is understanding before moving on. When you answer a student question, consider first asking the other students in the group what they thought.

**Bring the whole class together throughout the lab** to reinforce key concepts, clarify common points of confusion, and ask questions that require analysis. This will help students work efficiently and think deeply about the work that they are doing.

**Wrap up the lab with a class-wide discussion,** rather than allowing students to leave as soon as they are finished. The large group discussion can reinforce the goals for the lab and require students to synthesize their knowledge. Consider asking students to share discoveries, interpretations, or connect the lab with course concepts or real world applications. This discussion will also allow you to identify any problems with the lab so that you can correct them for other sections.
After the Lab:

Make sure that your grading is consistent with other sections and with the course policy.

Determine how you will evaluate the lab assignment based on your learning objectives. For example, if the most important goal was for students to apply a new procedure and walk through the process, it may not be so important that they got the answer exactly right. Also consider how you will weigh different components of the assignment. Will you consider presentation (writing, tables, organization) equally to substance (data, results, analysis)? Using a rubric can help to ensure consistency, streamline grading, and provide useful feedback to students.

Assess whether many students missed an important concept. If many students had a similar issue, address it with everyone rather than providing detailed individual feedback over and over again via the learning management system, email, or at the start of the next lab.

Give students feedback that will help them improve. Make sure students understand the big issues that will improve their next lab if addressed, and which issues are more minor.

Review the results of the lab in the next class meeting to reinforce key concepts and address any points of confusion.

Presenting Information Effectively

As a TA, you will often prepare and present brief introductory comments or explanations in your own section. These brief introductions can serve to connect ideas from lecture and previous classes, model disciplinary thinking, address student’s preconceptions, and elicit student interest in the topic. You may also be asked to give a lecture on a specific topic or to fill in for a faculty member who is out of town.

Preparing Your Presentation:

Decide if a presentation is necessary to meet the learning outcomes of the unit/topic or if an activity can fulfill the learning outcome better than a presentation.

Determine the learning outcomes of your presentation. What questions will be answered by the end of the presentation? What information should students be able to recall, synthesize, and analyze?

When planning your presentation, estimate how much time you will spend on each section of your presentation. Decide which sections you may cut if you run out of time.

Limit your presentation to no more than 15 minutes or break up your presentation with interactive activities to keep students engaged and to allow time for them to process information. Think of questions or other ways to engage students and check for understanding.
Organizing Your Presentation:

Introduction

- **Provide an agenda** that gives an overview of the material you will present.
- **Use an attention grabber** such as a visual, a comic, a quote, headliners, a short video, or an anecdote.
- **Contextualize your explanation** by stating how it relates to past and future lecture material, laboratory exercises, or to upcoming exams, papers, or projects.
- **Communicate to students what you expect them to learn** from your explanation as well as how you expect them to use the material (e.g., learning outcomes, questions that will be answered by the end, etc.).
- **Provide a historical or current real world problem** related to the topic.
- **Use a background knowledge probe or poll** to assess what students already know about the topic/concept. For example, ask an open question like, “What do you know about the properties of gases?”

Body

- **Determine the critical components of your explanation** that can be developed during class.
- **Place the critical components of your explanation in a logical order**, perhaps using one of the following styles: cause and effect, time sequential, topical or thematic, problem and solution, pros and cons, ascending or descending.
- **Present the same information across different modes.**
  - Use an example or illustration whenever possible and appropriate.
  - If applicable, do a live demonstration.
  - Organize information in an easy to read manner (e.g., use a table to organize data, use a list for important terms or concepts).
  - Restate an idea or explanation in different ways (e.g., use both academic and informal language).
- **Provide definitions.** Make sure you give clear, concise, and consistent definitions of new and unfamiliar terminology. Also, avoid or explain specialized “jargon.” If applicable, identify the Latin roots of terms to help with understanding and memorization.
- **Use clear visual and/or verbal transitions and organizers.**
  - Keep your audience aware of the progress of your explanation by emphasizing its structure and development with the use of phrases such as “in summary,” “with that finished, let's begin…,” “we've covered X; now let's turn our attention to Y.”
  - Clearly list or number important concepts or processes.
- **Make your presentation interactive with one of the active learning techniques listed earlier in this chapter.** This gives you and your students a break from passively listening and talking, increases interest, and helps you gauge student attention and understanding throughout your presentation.

Summary / Conclusion

- **Bring together the main points** of your presentation in the stated order and come to a conclusion.
- **Check for student understanding** and make students accountable for the content presented with a formative assessment.
- **Preview upcoming lectures, labs, discussion sections, etc.**
Delivering Your Presentation:

**Use a visual.** Be sure to read out loud any text and to explain any visuals. This can help reinforce the content and ensure that visually impaired students and ELLs are not at a disadvantage.

**Use handouts for extensive or detailed notes.** Distribute handouts just prior to their use to help keep students focused on the current discussion topic.

**Circulate around the room.** By moving around, you will be able to maintain proximity to all students, ensure that everyone can hear you, and draw their attention to what you are saying. If possible, use a presentation clicker so that you can move around. Also, most presentation clickers come with a laser pointer tool which makes referencing something on your slide much easier.

**Monitor your body language and your voice.** Make eye contact to help students stay engaged in conversation. Wear something comfortable so that it does not affect your movement.

How Can I Manage My Classroom and Assess My Effectiveness?

Both new and experienced TAs may struggle finding a balance between being firm and respected, yet friendly and approachable at the same time. Maintaining a professional but still personable boundary is best for increasing the effectiveness of what you do as a TA, for avoiding potential conflicts, and, subsequently, for preventing frustration. In order to set the right tone, discuss the instructor of record’s and your expectations for the discussion section or lab on the first day of class. If possible, include them in your section syllabus.

It is also a good idea to communicate expectations that you have for your students in your section and what your students may expect from you.

“Make sure you set very clear expectations for conduct the first day. It is much easier to start stern and get nicer, than try and gain credibility as an authority figure halfway through the quarter.”

— Tim Shelton, TA, Chemistry, TAC 2014–15

Common questions to consider include the following:

- How should students contact you? If by email, how often will you check and respond?
- What is the late assignment policy?
- What is the attendance policy for your discussion section? What happens if they arrive late? What if they want to leave early?
• What do you expect in terms of participation?
• What are the participation guidelines or ground rules? Whose responsibility is it to keep the class accountable?
• How do you expect students to prepare for section? If students do not come prepared, how will you hold them accountable?
• What do you expect in regards to technology in the classroom? What will happen if someone’s phone rings or if they are texting during class?
• What do they need to bring to each section or lab?
• How and when will announcements be made?
• How much help can you provide for homework, problem sets, essay drafts, etc.?
• What will happen with cheating and plagiarism? Refer to Student Judicial Affairs (SJA; http://sja.ucdavis.edu/reporting-misconduct.html or sja@ucdavis.edu) for handling instances of academic dishonesty, such as cheating and plagiarism.

Assessing Effectiveness

After any class, it is always recommended that you reflect and assess how effectively your class went in order to ensure that your teaching met the learning objectives of the unit and the course. This can also be an opportunity to note what worked well, what you modified from your original lesson plan, or what you would like to change so that if you need to teach the lesson again, you will have all of this documented for future reference. Additionally, reflecting on teaching practices will hone your overall teaching ability as you become more aware of how to best manage your classroom, how to support student learning, and how to motivate them.

Here are guiding questions that can help you reflect on your class and your teaching:

“Jot down a few notes after every lesson! When I go back to use material or activities from previous lesson plans, it is really helpful to see my notes about what worked and what did not.”
— Lindsay Baltus, TA, English, TAC 2015–16

• How did my class/lesson help students learn?
• How did my class/lesson meet the learning objectives of the course and/or of the unit?
• Was my class/lesson clearly organized and paced well (e.g., time management, instructions, order of activities, etc.)?
• Were there multiple and varied opportunities for all of my students to participate with the content, with one another, and/or with me?
• Did I check for student understanding?
Chapter 4: Classroom Strategies

STRATEGIES FOR MANAGING DIFFICULT CONVERSATIONS

Depending on the course, you may be challenged with the task of having to present and discuss difficult topics in class. For example, as a sociology TA, you may need to facilitate a conversation about the intersections of race, gender, and social class, which would require you to plan for how to guide the discussion to ensure that it is productive and does not turn excessively heated. Regardless of discipline, any TA may find themselves confronted with a difficult situation or with the task of facilitating a heated conversation. For instance, you may be presented with a student that makes an inappropriate comment to you or to their peers. The following strategies can help when a planned or unplanned difficult conversation surfaces.

**Clearly define the goals of each discussion.** Starting class with a clearly defined objective will shape the discussion and allow you to bring the discussion back to these goals if necessary.

**Establish ground rules for discussion, and consider having students establish the ground rules.** Possible ground rules include: listen respectfully without interrupting, respect one another’s view, criticize ideas not individuals, avoid blame and speculation, and avoid inflammatory language. You can integrate the Principles of Community (http://occr.ucdavis.edu/poc/) into these ground rules as well. If the class calls for a lot of potentially difficult conversations, establish ground rules on the first day of class and refer back to those when needed.

**Build structure into a discussion** so it is not just free form for students to say anything. For example, assign specific questions for students to discuss in small groups, or assign students to investigate and present different sides of a debate that may be different than their personal views. When a ‘hot’ issue does come up, ask students to write down their thoughts or summarize the discussion to allow tempers to cool.

**Encourage students to think critically about the complexities and ambiguities that often characterize controversial issues,** rather than thinking about them as ‘black and white’. Talk to students about how to make valid arguments and substantiate claims using evidence, how to analyze assertions and underlying assumptions, and how to consider different perspectives.

**Be conscious of and address comments that are inappropriate or demeaning.** It can be tempting to just move on and pretend it never happened, but then students think that this behavior is okay and miss the opportunity to learn from their or their classmates’ behavior. Follow up privately with the student who made the comment and clarify your expectations for future discussions.

**Take the focus off of a student who has made an offensive remark** and put it on the table as a general topic by saying something like “Why do you think people may hold these views? Why do those who disagree hold different views?”

**Be aware of your own biases and preconceived notions,** and encourage students to be aware of theirs as well. Be conscientious of what issues may hit a nerve with you personally and think about how you might deal with it if confronted with such a response in the classroom.

**Ask students to step back and reflect on what they might learn from the difficult conversation.** This can shift the discussion to allow everyone to see what issues were at stake and what caused the difficulty.

**Be an active facilitator rather than a passive observer.** Intervene throughout the discussion to reword questions, address misconceptions, ask clarifying and follow-up questions, and make sure everyone has a voice.

**Use discussion strategies that require students to listen carefully,** such as requiring the next speaker to paraphrase the ideas expressed by the previous speaker.
Frequently Asked Questions

What should I do when students are not coming to class prepared (e.g., not having done the reading)? Here are a few strategies to consider:

- **Participation** - Make it clear to the students that they need to prepare beforehand to participate in class and that their grade hinges on this participation (if it does).

- **Quizzes** - Give a short reading quiz every day to encourage preparation. Ask the instructor of record if you can tie these quizzes to the course grade.

- **Address it directly** - If it seems to be a continuing problem, ask students why they are not doing the reading. Are they been finding it too difficult? You may need to encourage students, especially those new to the university system, to come up with reading strategies, such as how to effectively annotate a text.

- **Reading summary or reflection** - Ask students to prepare a short summary or reflection about the reading to bring to discussion or start with this at the beginning of the section. You can collect them to gauge who is and is not reading and how well they are understanding the material.

- **Cold-call** on students especially in the beginning of the quarter to make clear your expectation that they come to class prepared.

What should I do if a student misses an important deadline? In conjunction with the instructor of record, you should have a well thought out plan for what should happen if a student misses a deadline. However, sometimes even the clearest rules require exceptions (e.g., a death in the family, an illness). You may have to make a judgment based on what you have experienced with the student previously. You may want to speak with the instructor of record or another experienced TA to see how you should handle the situation. If you suspect fabrication of an excuse, ask for proof such as a doctor's note, and/or consult with Student Judicial Affairs (http://sja.ucdavis.edu/).

Can I accept late assignments? This is up to the instructor of record, who may in turn say it is up to you. You may either: have a formal policy that allows each student to turn in one late paper or be strict about not accepting any late assignments, or have a pre-established grade penalty for late assignments. If your instructor of record leaves the late policy up to you, think through your policy and procedures carefully and communicate them clearly to your students on the first day of class, then administer the policy consistently to all. Ideally, you should have this policy written in your section syllabus so that you can refer them back to it, if needed.

Should I allow students to use technology during class? This may depend on whether technology is necessary for learning in your classroom. If you are teaching a foreign language class, it may be helpful for your students to have access to a dictionary online when writing or working on a presentation. Some students have e-textbooks, which may require a device, or some prefer to access online resources during discussion. Some students have an accommodation for a disability that requires the use of a device during class. Nonetheless, technology also has the potential of distracting students, so you may tell your class that no technology is permitted unless you say so for an assignment or an activity. Ask laptop users to sit in the back of the classroom so they do not distract other students with their screen. Or, make your class so interactive and interesting that students will not want to use their phones or tablets anyways. Again, whatever you decide, state that clearly (verbally and/or in your section syllabus) on the first day of section.
CHAPTER 5: BECOMING A BETTER INSTRUCTOR

How Can I Get Feedback on My Teaching?
How Can I Reflect on My Teaching and Grow as an Instructor?
Developing as an Instructor
Frequently Asked Questions
CHAPTER 5: BECOMING A BETTER INSTRUCTOR

How Can I Get Feedback on My Teaching?

Teaching, just like learning and any other skill, requires on-going practice, guidance, and feedback to improve. Feedback is helpful for enhancing your teaching and increasing student learning and success. There are several ways to receive feedback on your teaching. First, you can discuss strategies with more experienced TAs in your department or with the Graduate Teaching Community (GTC) (discussed in greater detail below). Second, you can review your end-of-quarter teaching evaluations from your students, or invite student feedback throughout the quarter. Third, you can ask the instructor of record or another TA in your department to observe your class, or you can request a consultation from the TA Consultants (TACs).

As part of the Center for Educational Effectiveness, the TA Consultants (TACs) provide peer-consulting services to their TA and AI (Associate Instructor) colleagues. Whether you need some quick advice, would like to spend time talking with an experienced TA, or want a new perspective on how your class is going, the TA Consultants can help. Each TAC has had a great deal of experience in the classroom, is enthusiastic about teaching, and is committed to helping her/his TA colleagues get the most from their TA experiences and develop their teaching skills. TACs strive to meet the needs of each TA with whom they consult by providing feedback, sharing resources, and recommending avenues for further development. That combination may include assisting the TA with pre-class preparation and planning, observing practice sessions, visiting the classroom, talking with their students, and referring the TA to campus resources and reference materials such as books, journals, and handouts. The types of consultations that the TACs provide include:

Videorecording - Watching yourself teach is helpful for seeing how you interact with students, your body language, and your communication skills.

Mid-quarter Class Interview - This interview gathers data anonymously from your students midway through the quarter so that you can modify your teaching and better support your students’ learning before the course ends.

Classroom Observation - Having someone sit alongside your students offers another perspective to your teaching and your classroom.

General Teaching Consultation - You can bring any teaching-related questions, problems, ideas to this consultation for suggestions, feedback, or additional resources.

Presentation Skills - This recorded or unrecorded consultation can be helpful for analyzing and reflecting on how you have organized and delivered your presentation.

Statement of Teaching Philosophy Consultation - Most faculty jobs require a statement of teaching
How Can I Reflect on My Teaching and Grow as an Instructor?

Between research and coursework, you may feel that you have little to no time to reflect on and hone your teaching skills. However, investing in becoming a more skilled instructor benefits your future career and the UC Davis community in several ways:

- You have a direct impact on the undergraduates that you teach and their learning gains in the course, so how you treat and relate to them will have a lasting impression even after they leave your class. Think back to the teachers and mentors who have supported you to graduate from college. And think about how they have influenced your decision to pursue a degree in your discipline and go to graduate school. Imagine being that person for your students!
- The skills of an effective and engaging instructor are transferable to delivering conference presentations and job talks, to mentoring and supervising individuals, and to improving your organizational abilities.
- Teaching and teaching-related employment positions may be an avenue to explore when you enter the competitive academic job market.
- Demonstrating teaching and mentoring experience and excellence will make you more competitive for fellowships, postdocs, and faculty positions. If you end up in a faculty position, investing in your teaching as a graduate student will help that transition.

“Things really changed for me when I realized that teaching is a constant adjustment, both in the sense of micro changes made during class when “the lesson plan meets the students” and macro changes made over time as courses end, new ones begin, and reflection occurs. I used to think that you had training, taught some, and then were “there.” It’s such a relief and also refreshing to know that we are always moving and evolving as teachers.”

— Miki Mori, TA, Linguistics, TAC 2012–14

Part of becoming a better instructor is taking advantage of professional development opportunities that expand your pedagogical understanding and provide you with additional practice. The following are various workshops, courses, and programs at UC Davis that can help you develop your skills:

**Workshops for TAs and Associate Instructors (AIs):** Graduate students can attend workshops lead by TA and AI Consultants during fall, winter,
and summer. In the fall, workshops range from professional development topics, such as writing a statement of teaching philosophy and organizing/strengthening the teaching portfolio, to pedagogical strategies, such as incorporating active learning. In winter and summer, workshops are expanded to address topics more comprehensively, and offer a certificate of completion for inclusion on your Curriculum Vitae or in your teaching portfolio. Past series have included “Powerful Pedagogy: Using Research Supported Methods to Teach Effectively” and “The Learner-Centered Classroom: How to Engage, Motivate, and Assess Students.”

**Graduate Teaching Community (GTC):** The Graduate Teaching Community (GTC) is an interdisciplinary collaborative group where graduate students and postdocs explore teaching practices, tackle teaching and learning issues in a supportive environment, freely discuss ideas about teaching and developing their own personal teaching style. The GTC meets weekly throughout the year. Your involvement with the group can range from dropping in periodically, to participating regularly, to helping facilitate a meeting with the possibility of earning a teaching certificate.

“Even the best instructors get better by talking with others about teaching.”
— Philip Matern TA, Physiology, TAC 2012–14

**Graduate Seminar on College Teaching:** The “Seminar on College Teaching is an informative and interactive course to develop essential skills for designing, delivering, and evaluating effective college-level courses. The 2-unit graduate seminar (EDU 398) is taught several times a year and is open to graduate students and postdocs. Topics include: examining how students learn, developing course objectives, designing teaching strategies to meet those objectives, creating meaningful forms of assessment, establishing a productive learning environment, developing ways to promote lifelong learning and self-improvement in teaching, and more. All participants who complete course requirements will earn a certificate of completion that can be included in a teaching portfolio and CV. Other graduate seminars that explore specific topics related to teaching and learning in higher education are offered periodically. These seminars introduce participants to research and best practices and participants develop their own skills as effective college-level instructors. Previous seminar topics have included “Teaching Creative Thinking in the Disciplines,” and “Designing Courses for Hybrid Delivery.”

**TA Consultant Program:** TA Consultants (TACs), a multi-disciplinary group of graduate students who share a love of teaching, work as coaches and consultants to their fellow TAs on campus. As a TAC, graduate students participate in regular training and professional development sessions; learn more about teaching and learning in the college classroom; plan and
Developing as an Instructor

Becoming a better instructor requires practice and reflection. The following are methods that can help you achieve that goal:

Think about the transferable skills you would like to develop while you are a graduate student and take advantage of opportunities to do so. Refer to the resources previously listed to learn about programs and services on campus where you can develop your teaching skills and connect with other graduate students who are interested in teaching.

Maximize feedback from students

- Ongoing feedback about your teaching is helpful. Consider assessing your teaching with a one-minute paper at the end of a unit or class, or contact the TA Consultants for a mid-quarter class interview to get feedback halfway through the quarter. When the end-of-the-quarter student evaluations arrive, communicate to your students the importance of receiving constructive feedback about your teaching.

- When reading end-of-the-quarter student evaluations, look for trends in what you have done well and what needs improvement. Identify one or two themes from your students’ comments each quarter that you will incorporate into your future teaching. Remember, every instructor, faculty or TA, has received negative feedback at one point or another.

Explore other teaching and mentoring positions and opportunities. Apart from what is listed above, ask more experienced TAs and graduate students for additional programs that may interest you. Explore the various student centers, such as the LGBQTIA Resource Center, the Cross Cultural...
Center, and the Women’s Research and Resource Center (WRRC). Ask your department about mentoring or training new TAs, or becoming a lead TA.

Keep a teaching portfolio. A teaching portfolio is a concise, organized narrative that presents your teaching accomplishments and strengths. First, many faculty and teaching-related job applications will call for a teaching portfolio, which may include a CV, sample syllabi, student evaluations, sample assignments and activities, a statement of teaching philosophy, etc. It will be much easier for you to gather these documents as you are teaching, rather than searching for them when you need to submit an application. Second, organizing these materials will give you an opportunity to reflect on your teaching accomplishments, to consider what you might like to improve, to think about things that you may not have otherwise thought about (e.g., what is my teaching philosophy?), and to plan for other experiences that you would like to add to your teaching portfolio.

Explore Scholarship of Teaching and Learning (SoTL). SoTL is research related to pedagogy and higher education, and may include topics ranging from, how to engage students across different contexts (e.g., large STEM classes) to what factors affect student achievement (e.g., stereotype threat). There are many peer-reviewed SoTL journals, including the Journal of Excellence in College Teaching and the International Journal for the Scholarship of Teaching and Learning, just to name a few.

Frequently Asked Questions

Whom should I ask for support if I need help with my teaching? Depending on what you are struggling with, you may want to speak with the instructor of record for assistance or fellow TAs. Request a consultation with the TA Consultants, who offer an array of services that are meant to help you troubleshoot teaching-related concerns.

“How grading often takes longer than expected, so start early to allow enough time.”
— Susan Talcott, TA, Anthropology, TAC 2014–15

How do I balance teaching with research and my personal life? There is no single formula for striking the perfect balance, but here are a few things to consider.

- Schedule time each week for when you will work on teaching-related tasks. Having this in your calendar will help you make time for your teaching responsibilities outside of the time you are actually in class, including preparing questions or presentations, grading student work, or completing lab activities.
- Review the syllabus and plan for grading ahead of time. Grading can be more time consuming than expected. As such, look over the
schedule to identify when students will be submitting assignments and taking exams, and plan accordingly. Communicate with the instructor of record about when they expect you to finish grading each assignment.

- Communicate to your students when you will reply to emails so you do not feel obligated to return emails immediately or on the weekends, and your students do not feel ignored.
- Be clear with your office hours. If most students cannot make your scheduled office hours, consider changing them so that you do not get complaints or end up having office hours scattered throughout the week.
- Ask experienced TAs that have taught the course before for resources and previous lesson plans.
- If possible, request to teach the same course again. The first time you teach a course always takes longer for planning and grading, so if you can repeat a course, you can save time, improve upon the last time that you taught it, and further develop your skills.

What do I do if my advisor tells me that I’m spending too much time on teaching? Sometimes your advisor may not be aware of the expectations for your TAship or of your priorities and career goals. If you plan to pursue a teaching-focused position, remind your advisor that apart from your research, teaching experience and expertise are essential components of your CV. You may also want to plan how to demonstrate to your advisor that you are moving forward with your research. This may include regular updates (in person or by email) or quarterly writing drafts, whatever is feasible and appropriate for you and your advisor. Ultimately, finishing your dissertation and earning your PhD is necessary if you want to obtain a faculty position or a similar one at the university-level, so your advisor’s concerns may be warranted as well.

How important are student evaluations? Student evaluations are one way to get feedback on your teaching and evaluate teaching effectiveness. Feedback from students can help you identify what you are doing well as an instructor and what needs improvement, which can have a significant impact on the next group of students that you teach. Student evaluations are also an integral component of your teaching portfolio and are used as evidence of teaching excellence. Some departments may offer TAships to graduate students or rank TAs based on student evaluations. However,
keep in mind that student evaluations do not give the whole picture of teaching effectiveness.

**What if my student evaluations are negative?** Do not be discouraged! Student evaluations do not directly correlate with student learning and may reflect other frustrations related to the course. Even if students seem dissatisfied, they may have learned a great deal in your section. If you are distraught over your evaluations, schedule a consultation with a TAC to brainstorm how you may constructively use the feedback provided in your evaluations and how to improve upon them the next time you teach.

**Where can I connect with other graduate students who are invested in teaching?** We suggest you join the Graduate Teaching Community (GTC) mentioned above and/or attend workshops for TAs run through the Center for Educational Effectiveness. We also encourage you to start groups in your department where graduate students come together to talk about their teaching.

**What other teaching-related positions are available to graduate students at UC Davis?** Apart from being a TA, you can be a Reader or an Associate Instructor (AI). There are no instructional responsibilities associated with being a Reader, and they generally require very minimal to no contact with students. Readers are responsible for grading assignments and exams. These responsibilities may be split with TAs, depending on the course and the amount of grading required. It is possible for instructors of record to require readers to attend lecture in order to increase familiarity with course content, and these additional hours are included in the requirement for the position. Associate Instructors (AIs) are often experienced graduate students who are given the opportunity to serve as instructors of record for specific courses. These positions may require a separate application process. It is much more common for students in the social sciences and humanities to find AI positions than for students in the sciences and engineering. There are also more opportunities in all disciplines during summer session for graduate students to hold AI positions. Visit Graduate Studies to learn more about these and other paid positions for graduate students: https://gradstudies.ucdavis.edu/.
CHAPTER 6: PLANNING LESSONS

What is a Lesson Plan?
Lesson Planning Using Backward Design
Strategies and Steps for Writing a Lesson Plan
Frequently Asked Questions
CHAPTER 6: PLANNING LESSONS

What is a Lesson Plan?

A lesson plan provides a roadmap for what students will learn in a class and how class time will be used effectively to achieve that learning. An ideal lesson plan describes the learning process in enough detail that any instructor could see the flow of the class. Typically, a lesson plan includes detailed descriptions of the following:

- Learning outcomes for the lesson
- Materials and equipment
- Introduction (review/preview/attention grabber)
- Outline of learning activities and assessments
- Wrap-up/Summary
- Pre-class preparation/Homework

There are several benefits to preparing a well-thought-out lesson plan. First, it will help you better manage your time and be more organized, setting a precedent for students. Second, creating a lesson plan will help you articulate your learning outcomes, ensure that you check for student understanding periodically throughout the class, and that you brainstorm possible classroom challenges. Third, you will have a record of your teaching, which is helpful if you teach the class again and for your teaching portfolio.

“Get yourself organized and display that behavior to your students. Showing that you take teaching seriously is the first step in getting your students to take things seriously. And, because you’re organized, managing the classroom won’t feel as stressful if you’ve planned appropriately.”

— Emily Edris, TA, Communication, TAC 2014–15

Lesson Planning Using Backward Design

Backward Design is an approach to creating effective, learner-centered lesson plans that is the reverse of how many instructors traditionally plan to teach. In contrast to focusing lesson planning on the content that the instructor will teach and how they will teach it, Backward Design begins with writing learning outcome(s). Then, you determine the assessment
that will demonstrate student achievement of the learning outcome(s) and provide feedback to students about their learning. Next, you decide the activities that will help students gain the knowledge and skills necessary to successfully complete the assessment on their own. Assessments and activities are sometimes interchangeable because some assessments may act as activities that prepare students for the final course assessment. For example, students may write an annotated bibliography as an activity in order to prepare them for completing the final assessment, writing a literature review. Finally, you check for alignment by ensuring the assessments and activities will help students achieve the learning outcome(s).

Dig Deeper
Go online for a complete list of formative assessment techniques which can also serve as activities.

Steps for Applying the Backward Design Model

1. **Articulate learning outcome(s).** What should students know, understand, and be able to do?
   a. STEM example: Students will be able to prove if an algorithm is correct.
   b. Social Science example: Students will be able to write a concise literature review with a clear argument.
   c. Humanities example: Students will be able to defend an argument in an oral presentation.

2. **Assessments.** What evidence will demonstrate that students are making progress towards the learning outcomes?
   a. STEM example: Students will complete an exam with word problems and short answer.
   b. Social Science example: Students will write an annotated bibliography of the sources that will form part of their literature review.
   c. Humanities example: Students will write and deliver a persuasive speech.

3. **Activities.** What exercises will help students develop the skills and knowledge needed to meet your learning outcomes?
   a. STEM example: Students will work in teams to solve practice problems.
   b. Social Science example: Students will read journal articles and identify the arguments of the literature reviews.
   c. Humanities example: Students will make a concept map of how to organize their speech.

4. **Check Alignment.** How do the assessments and activities help students achieve the learning outcome(s)?
   *Note how, in the above examples, the learning outcomes, assessment, and activities align between each step.*

“Incorporate into your lesson plans time to ask your students if they understand a concept. This can be a good way to review previous class material and will help keep your students more engaged in the learning process.”

— Susan Talcott, TA, Anthropology, TAC, 2014–15
Strategies and Steps for Writing a Lesson Plan

The following is a list of strategies and steps for drafting a complete lesson plan. Different people may approach these steps in a different order and using an iterative process, but it is useful to include all of these steps:

**Define and prioritize learning outcomes.** Write concrete and measurable learning outcomes that describe what you want students to learn and be able to do by the end of a specific lesson. For example, *By the end of the class, students will be able to discuss the challenges and benefits of using rubrics for grading.* There are several benefits to starting with learning outcomes. First, formulating learning outcomes will help you focus on what material to cover during class. Second, learning outcomes ensure we know what type of understanding we are checking for and that the activities we are doing are purposeful and can help students learn what we want. Third, clearly articulated learning outcomes communicate expectations to students about what they should be able to do by the end of the lesson, a class, etc. Students may refer to these learning outcomes to prepare for exams or projects.

**Decide the assessments you will use to check for student understanding and achievement.** After you have written your learning outcomes, determine how students will demonstrate understanding and accomplishment of the outcomes. Returning to the previous example (*By the end of the class, students will be able to discuss the challenges and benefits of using rubrics for grading*), you could employ a one-sentence summary or a pro and con grid to ensure that students understand the challenges and benefits.

**Determine the classroom activities you will use to help students acquire the skills and knowledge needed to successfully demonstrate mastery of the learning outcomes.** Activities should engage learners with the content, with peers, and with you. For example, if you want learners to be able to complete a pro and con grid or write a one-sentence summary about the benefits and challenges of using rubrics for grading by the end of your lesson, you may have students free write on prior experiences grading with and/or without rubrics, practice grading a sample assignment with and without a rubric, or work in small groups to brainstorm benefits and challenges together. Always include an activity or an assessment at the end of your lesson in case you finish early. This way you do not have to improvise or choose a random exercise because you need to fill the rest of the class time.

**Decide on a logical order of events.** Learning requires scaffolding, so think about what students need to know and be able to do first before moving to the next step. Consider using the “I do - we do - you do” model, where you first demonstrate or introduce the process, then work through an example or problem with your students, providing guidance and feedback, and finally have students complete the task on their own. Oftentimes, we remember the “I do” and “you do” parts, but forget the “we do.” Be aware of how the
classroom is setup as the order of activities may depend on your classroom structure. For example, if you need the document projector, but the screen hides the blackboard when it is down, you may need to make a decision about when and whether to lower the projection screen.

Think through instructions and guidelines for activities. By thinking through the procedures ahead of time, you will feel more confident facilitating the activity, you are more likely to anticipate potential problems and questions, and your students will have a more enriching learning experience. Consider the following:

- How will I introduce and explain the activities?
- What handouts, materials, questions, or problems do I need?
- How long should each activity and assessment last?
- What will you do to follow-up at the end of each activity?
- What do students need to produce by the end of the activity?
- Should they work alone or in groups? If in groups, how will they make groups?
- If they are stuck, will you provide them hints or do they need to ask you specific questions?

You may want to write out the exact instructions you will say to students in order to explain the activity concisely.

Check for alignment. Are the assessments and activities aligned with the learning outcomes? Make adjustments as necessary.

“Develop a classroom environment that engages students with diverse learning preferences.”
— Douglas Worely, TA, Native Studies, TAC 2015–16

Consider the diversity of students. Are the outcomes achievable by all students? Are there multiple ways for students to engage with the ideas, with their peers, and with you to demonstrate understanding? Are your assessments, activities, and materials accessible to all students? Brainstorm options for participation for each activity and assessment. Some students may need alternative modes of participating during activities. For example, if you are planning an activity that requires standing and walking, how will you accommodate a student with a mobility issue?

Determine what pre-class preparation you and students need to complete in order to prepare for the lesson’s classroom activities. What materials (e.g., technology, handouts, etc.) will you need? What information or skills will students need prior to participating in these activities? What homework will prepare students accordingly? Pre-class preparation should serve a purpose in relation to the lesson, so explicitly connect your class with the homework. This will also encourage students to complete the homework prior to class and set the expectation that students are required to come to class prepared.
Develop an introduction, transitions, and a wrap-up/summary. Introduce the learning outcome(s) of the lesson and of each activity to your students. Use verbal and physical transitions to help students follow along with your lesson. Include a wrap-up at the end of your lesson that summarizes or ties the learning outcome(s) and content together. Write down final thoughts or open questions you would like to leave with the students, or save time for student reflections on the day’s lesson. Planning for wrap-ups prevent you from talking superfluously until the time is up.

Make handouts and gather materials. Consider all of the materials that will be required to successfully run your activities. Post any handouts on the course site in the learning management system so students can easily access them.

Include an agenda to share with students. Summarize your entire lesson plan with a short list of the activities to share with your students. This helps communicate to students what will happen in class, it helps you transition between activities, and manage the time during the discussion section or lab.

Do not be restricted by your lesson plan. While it may help with time management and organization, planning every minute can make the class overly prescriptive. Be open to discussion and questions which can lead to significant and rich learning moments for students. Some instructors find that detailed lesson planning allows them to be more flexible because they have thought through what is most important and how long activities will take, whereas others prefer to build in time for student questions and unplanned discussion from the beginning.

(During and after the lesson) Note what went well, what could be improved for next time, what worked as expected, and what you modified during the lesson and why. This will be helpful for improving the lesson and your overall teaching because you will practice identifying and modifying what you do next time to be more effective (e.g., how to better communicate instructions, which areas are too easy or too difficult for students).

(After the lesson) Reflect on the class and assess how effective your lesson was. Ask yourself the following questions:

- How did the class help students learn?
- Were there opportunities for my students to participate with me, the material, or with each other?
- How did the activities help meet the learning outcome(s)?
- Was the class clearly organized?
- Did I allot enough time for each activity and assessment?
- Were there clear transitions?
- Were there opportunities to check for student understanding?

Dig Deeper
Go online for lesson plan templates.
Frequently Asked Questions

What if I do not have time to write a lesson plan? Even if you do not have time to write a complete lesson plan, you should always prepare by thinking about what topics or concepts you will cover in class. Using Backward Design as a guide, think about what skills and abilities you want students to leave with at the end of the class (identify learning outcomes). Then make a short agenda of the activities and assessments that align with the learning outcomes. Another option is to draw from existing lesson plans. You do not have to write new lesson plans for every single class. Colleagues who have taught the course may have lesson plans for you to modify and adapt to your classroom. Looking at others’ lesson plans may provide you with ideas and insights into how they approached teaching certain skills and topics. After you have taught a course once, you can build on your previous lesson plans, and share your own successful plans with others in your community. Remember that investing time and energy into writing a lesson plan ultimately makes you more efficient, especially if you teach the class again.

How detailed should my lesson plan be? Ideally, a lesson plan should be detailed enough for another instructor to use it to teach the class as described. However, the level of detail that you choose depends on your own style, experience, and need. For beginning instructors or someone teaching a new class, very detailed lesson plans can ensure effective execution. Regardless of time and expertise, all lesson plans should ensure there is alignment among learning outcomes, assessments, and activities.

What if the instructor of record gives me a pre-written lesson plan to follow? First, communicate with your instructor of record to inquire about how closely you have to stick with the lesson plan. Follow the steps in this chapter to determine if it has all of the different elements of a well-written plan, such as learning outcomes and assessments, and whether everything is aligned. If needed, write your own learning outcomes and/or re-evaluate the order of activities and the instructions. In addition, consider learner diversity and accessibility. If you do not have to follow the lesson plan, add, delete, and/or modify what you need in order to have something that follows a Backward Design approach.

What if I do not know what the learning outcomes are for my discussion section or lab? Instructors of record will often have the course learning outcomes or objectives on the syllabus. Sometimes, instructors may also provide each TA with assignment- or lesson-level learning outcomes for the discussion section or lab. If you are not provided with assignment- or lesson-level learning outcomes, write your own and include them in your section/lab syllabus. Think about what students will need to be able to do in your section or lab to successfully reach the larger class objective. For example, if the course states that students will learn to write a five-paragraph
argumentative essay, what do you think students need to be able to do to accomplish that goal? You may decide that one of the outcomes in your section is for students to be able to defend an argument logically. In order to do that, you may have a lesson outcome where students have to identify weak points of an argument in a sample essay or to write an outline with evidence for and against an argument.

**How should I manage my class time?** While you may try to estimate how much time to allot for each activity, there will always be instances when an activity takes more or less time than you anticipate. While you are lesson planning, identify what you can cut out from your lesson that would not interfere with your students achieving the learning outcome(s). Are there activities that share similar objectives? Is there an activity or an assessment that you could have students do outside of class? Also, plan an extra activity in case you finish early. Lastly, note how long activities run while you are teaching or right afterwards so that you may modify your lesson plan accordingly.

**How can I get feedback on my lesson plan?** Asking for feedback on your lesson plan is a great way to improve your teaching and to hone your skills in writing effective lesson plans. Ask your colleagues or the instructor of record to provide you with feedback, or schedule a general teaching consultation with the TA Consultants at the Center for Educational Effectiveness (CEE; http://cee.ucdavis.edu).

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**Dig Deeper**

Go online for sample section syllabi across disciplines.
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Stanford University, Center for Teaching and Learning (https://teachingcommons.stanford.edu/ctl)

UC Irvine, Teaching, Learning, and Technology Center (www.tltc.uci.edu)

UC San Diego, Center for Teaching Development (https://ctd.ucsd.edu)

UC Santa Barbara, Instructional Development (www.id.ucsb.edu)

University of Waterloo, Centre for Teaching Excellence (www.cte.uwaterloo.ca)

Vanderbilt University, Center for Teaching (http://cft.vanderbilt.edu)
The following is a non-exhaustive list of UC Davis resources to help support you and your students.

**Emergency Services/Campus Safety**
http://ucdavis.edu/emergency/emergency-services.html, call 911 or (530) 752-1230
Resources and contact information for emergencies and campus safety, including emergency preparedness and response, other emergency help, personal safety, campus intervention programs, campus health and counseling services, community services.

**Teaching-related Support and Professional Development:**

Teaching Assistant Consulting Program (TAC); Center for Educational Effectiveness (CEE)
http://cee.ucdavis.edu
One-on-one teaching consultations and feedback; mid-quarter interviews; video recording and classroom observations; help with statements of teaching philosophy; presentation skills and lesson feedback consultations; workshops and classes on teaching and professional development; Graduate Teaching Community; and Scantron test scoring.

Student Judicial Affairs (SJA)
http://sja.ucdavis.edu/faculty-and-sja.html
Information for instructors about promoting academic integrity, preventing cheating, preventing plagiarism, handling class disruption, helping students in a crisis, what to include in a syllabus; student conduct standards; disciplinary process; report misconduct; student rights and grievances.

Office of Graduate Studies and GradPathways
https://gradstudies.ucdavis.edu/current-students
Academic services; financial support; employment information; professional development workshops and programs; diversity resources; academic support and resources.

**Academic Technology Services**
http://ats.ucdavis.edu
Learning Management System (currently SmartSite)
support; workshops and forums about teaching with technology; classroom technology support (e.g., media cabinet, projector, podcasting); computer classrooms.

**University Library**
https://www.lib.ucdavis.edu/
Course reserves for textbooks; library instruction session for classes or consultation on a library assignment; guides and tutorials for writing, citing information, using the library, library research; specialized guides in different subject areas.

**Emotional Support and Wellness:**

Student Health and Counseling Services (SHCS)
a. Student Health and Wellness Center
http://shcs.ucdavis.edu/services/medical.html
Medical services, including primary care, specialty care, pharmacy, nutrition services, clinical support services, optometry clinic, psychiatry, men and women’s health.

b. Counseling Services
http://shcs.ucdavis.edu/services/counseling.html
Mental health and psychological services, including individual counseling, group services, community advising network, career counseling, community referrals, eating disorder services.

Women’s Resource and Research Center (WRRC)
http://wrrc.ucdavis.edu
Promoting gender equity and social justice; empowering community; additional resources; hate or bias incident reporting resources; violence prevention resources and reporting information.
Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual Resource Center
http://lgbtqia.ucdavis.edu/
Internships; mental health program resources; peer education; volunteer program; queer mentorship; safe zone; academic retention program; speakers bureau; multiple events; related campus and community organizations; transgender and disability resources; HIV testing; LGBTQIA education.

Cross Cultural Center
http://ccc.ucdavis.edu
Information about CCC communities, including for graduate and international students; programs; grants; jobs and volunteer programs; reporting hate and bias incidents.

AB540 and Undocumented Student Center
http://undocumented.ucdavis.edu/
Undocumented student support; grants; legal advice; emotional and academic support; community outreach; and UC Davis faculty and staff training.

WorkLife and Wellness
http://worklife-wellness.ucdavis.edu
Family care resources; breastfeeding support; volunteer opportunities and policies; workplace flexibility; events; wellness programs and events; link to Human Resources.

Campus Recreation and Unions (CRU)
http://cru.ucdavis.edu
Activities and Recreation Center (ARC); gym; group exercises; personal training; climbing wall; indoor track; Memorial Union (MU); aquatics; Band-Uh!; Craft Center; Equestrian Center; Intramural sports; Outdoor Adventures.

Experimental College
http://ecollege.ucdavis.edu
Various classes, including martial arts, dance, crafts, fine arts, yoga, music, holistic health, cooking.

Academic Support for Undergraduates:

Student Disability Center (SDC)
http://sdc.ucdavis.edu
Determine eligibility; provide specialized academic support; request accommodations; notetaker services; mobility assistance.

Student Academic Success Center (SASC)
http://success.ucdavis.edu
Drop-in and by appointment tutoring for undergraduates for writing, chemistry, math, biology, statistics, physics; success programs; study skills support workshops; international student resources; success programs including, the Educational Opportunity Program (EOP) and the TRiO Scholars Program (SSS).

Student Recruitment & Retention Center (SRRC)
http://srrc.ucdavis.edu
Student-run programs for community outreach; academic support; peer mentorships; open study space; volunteer and internship opportunities.

Center for Leadership Learning (CLL)
http://cll.ucdavis.edu
Workshops; certificate programs; one-on-one leadership coaching; opportunities for graduate students to facilitate workshops.

Support for International Students and/or English Language Learners (ELLS):

International & Academic English Program
http://esl.ucdavis.edu
TOEP (Test of Oral English Proficiency) for prospective international TAs; SPEAK test for prospective international TAs; PAL (Partners in Acquiring Language) program.

Services for International Students and Scholars (SISS)
https://siss.ucdavis.edu/
Visa and immigration assistance; advising for international students, scholars, professors, and researchers; services for departments.

Graduate Writing Fellows
One-on-one writing consultations; workshops; writing support; reading support; grant support; fellowship support; peer education; collaborative learning.