

Division of Graduate Studies



TA Handbook

Prepared in collaboration with the UC Santa Cruz
Center for Innovations in Teaching and Learning



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This handbook draws on information and guidance provided in a body of research on teaching and learning, resources from several university teaching centers, other universities' TA handbooks. We have aimed to include the best of the existing literature designed to help TAs with the tasks of teaching, advising, engaging, and evaluating students. Special thanks to the following organizations for their support of this project: the UCSC Center for Innovations in Teaching and Learning; the UCSC Department of Education; UCSC's International Student and Scholar Services; the UCSC Office for Diversity, Equity, and Inclusion; the UC Davis Center for Educational Effectiveness and Graduate Division; Northeastern University; the University of Florida College of Liberal Arts Teaching Center; and the UC Berkeley Graduate Division.

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SECTION 1: FUNDAMENTALS

Role and Importance of TAs

Teaching Assistants (TAs) assist instructors of record (usually faculty members) with instructional responsibilities for undergraduate-level, 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 Santa Cruz. You can have a significant impact on a student's education, career trajectory, and sense of belonging here on campus.

As a TA you will learn leadership, presentation, organizational, mentoring, and social skills that will be useful during and after your time at UCSC. Your CV will be more competitive if you highlight these skills as well as your pedagogical knowledge and teaching development. TAing is a job (you are compensated for this assignment) that is also often a deeply rewarding and intellectually stimulating experience.

At UCSC, your assignment as a TA will vary depending on the instructor and course. You may be asked to facilitate lab or discussion sections, grade papers or exams, hold office hours, attend lectures, present a guest lecture, and draft exams or other assignments.

TAs are normally hired at 50% time. You must not be assigned more work than can be completed, according to norms established by the instructor of record and discussed with you in advance, in 220 total hours during the quarter. You should be able to accomplish your assignments in an average of 20 hours per week. [In the Appendix of this handbook, you will find a Scheduling Your Time Worksheet that you can use to keep track of your hours and review with the primary instructor to help prioritize work.](#)

TAs at UCSC are represented by the UAW 2865 union. The hours and type of work done by TAs are outlined in a contract that is updated regularly. To learn more, visit the [UAW 2865 union's website](#).

TA Compensation and Direct Deposit

As a TA, you will receive compensation for your work on a monthly basis during the academic quarter in which you working, and will receive payment for a given month by the first day of the following month. You will receive your first paycheck on November 1.

The safest and easiest payment method is direct deposit, in which your pay is deposited into your bank account directly, rather than receiving your pay via a paper paycheck. Among the advantages of this option are:

- Your earnings statement (pay stub) will be available online three days prior to payday, and is viewable by internet browsers and most smartphones.
- Delays due to lost or misrouted paper checks are eliminated.
- It is better for the environment, as paper for checks and envelopes is not used.

- It saves a trip to the bank or ATM.

To sign up for direct deposit, go to [UC At Your Service Online \(AYSO\)](#). You will need to input the account number for the account you want your pay deposited to, as well as other information about the bank.

If you need emergency financial assistance, contact [Slug Support](#) at 831-459-4446.

TA Influence on Student Success and Well-Being

UC Santa Cruz takes a holistic approach to supporting student success: in order to achieve high graduation rates and educational equity, and to promote student achievement and overall student well-being, all functions of the university must share responsibility in creating an environment where students can thrive. **TAs play a vital role in their students' academic experience on campus, and are often on the frontlines of student success.** Often in a large class, a TA will have more regular contact with students than is possible for the instructor of record. TAs are key partners in implementing the course design of the instructor of record, and also perform the important work of facilitating a supportive learning environment for students. TAs serve as leaders of sections and labs where students are invited to construct meaningful knowledge, as evaluators of student work and academic progress, and as connectors who can direct students to key resources on campus. TAs should be aware of this co-responsibility for students' success and consider how to contribute to students' sense of being supported and motivated to learn and excel.

The [Division of Student Success](#) at UCSC includes a variety of campus services and initiatives that support students in their academic goals, mental health and well-being, and sense of belonging on campus. These services, which include the Student Health Center (including [Counseling and Psychological Services](#) and [Student Health Outreach and Promotion](#)) and the campus [Student Success Centers](#) (including Educational Opportunity Programs, Learning Support Services, the Hispanic Serving Institution Initiatives, Services for Transfer and Re-entry Students, and [the Resource Centers](#)), can become significant resources for your students throughout their university careers.

When developing professional relationships with students you are instructing or mentoring, keep in mind that you can positively affect not only students' academic success but also their well-being—during and after their time at the university. [A 2014 article in *The Chronicle of Higher Education*](#) reported that students who felt that their instructors exhibited an excitement for learning and a caring attitude about their well-being and academic success, were more likely to identify higher levels of well-being and engagement at work post-graduation (Carlson). [A 2017 article in *Faculty Focus*](#) further suggests that students' perception of their instructors' support is related to the kind of boundaries that an instructor sets up for a professional student-teacher relationship. Rigid boundaries can convey an instructor's limited interest in a student's well-being, while loose boundaries can make it difficult to establish an instructor's authority as an evaluator of student work and an academic mentor (Wyrick). Moreover, an instructor's commitment to their own self-care can be a key factor in promoting healthy and empowering instructor-student relationships: when instructors are committed to their own well-being, they can better support their students in a professional capacity (Wyrick).

This handbook also introduces resources that are available on campus to support you in your own achievements as a graduate student teaching assistant, including professional development opportunities in teaching at the [Center for Innovations in Teaching and Learning](#), and services that can promote your well-being and sense of belonging on campus. The Division of Graduate Studies' [Support & Resources](#) page includes a list of resource centers that can offer various forms of support during your TA career at UCSC.

Faculty Expectations

Faculty expectations vary from course to course, so before the first class, meet with the instructor of record to review the syllabus and learn the policies and processes for:

- Add/drop/wait lists
- Absences (for you, the instructor of record, and students enrolled in the course)
- Late assignments
- Accommodations via the Disability Resource Center (note that accommodations requests from students are confidential between you, the student, and the instructor of record)
- Grade disputes
- Using computers, phones, and tablets in the classroom
- Tracking attendance and participation
- Consequences for breaches in academic integrity, e.g. plagiarism

You will be provided (or can ask for):

- Copies of course syllabi, handouts, and copies of textbooks and/or readers. You should never have to spend your salary buying the books for the course for which you are a TA.
- Confirmation of weekly or bi-weekly meetings with the instructor of record and other TAs for the class.
- Information on printing or copying course-related material and space to hold office hours.
- The location of the class, sections, and/or labs.
- An up-to-date course and section/lab roster. Rosters for the class and your section can be found through your Faculty Homepage on [MyUCSC](#). Once you have logged in and navigated to your Faculty Homepage, go to “Faculty Center” to locate rosters. The class to which you have been assigned as a TA should appear. Alternatively, you can search for a class roster by course number through the same portal.
- Information on whether labs or sections meet during the first week of the instruction period.

Misunderstandings sometimes occur between TAs and supervising faculty members. Instructors who have worked with many TAs may sometimes assume that every TA knows about their expectations. Other graduate students can be a great resource. Likewise, if you have questions or encounter problems, speak with the instructor of record and/or your graduate advisor. Should you feel that you are unable to address an issue between yourself and your supervising faculty member directly, you might consider talking with the [Campus Conflict Resolution Office](#).

Imposter Syndrome

Most graduate students, at some point, feel as if they don't belong, or like they are "imposters" within the academy. The 2015 essay "[We are Not Imposters](#)" from *Inside Higher Ed* details helpful on-the-ground practices and approaches for fighting "imposter syndrome," a common feeling among graduate students. When it comes to teaching, it can be helpful to remember that you are a facilitator of student learning, and are not expected to be an expert.

Likewise, it is important that new TAs not expect that they will be expert instructors upon first stepping into the classroom. Teaching is a skill that is developed over time and with practice. Set realistic expectations for yourself, and do not hesitate to seek guidance from and collaboration with your TA colleagues and instructor of record.

Further resources for professional development in teaching include UCSC's [Center for Innovations in Teaching and Learning](#), professional development events at the [Graduate Student Commons](#), the PhD+ Series at [The Humanities Institute](#), the [Digital Scholarship Commons](#), and the Institute for Scientist and Engineer Educators (ISEE) [Professional Development Program](#). The Division of Graduate Studies' [Support & Resources](#) page includes a list of resource centers that can offer various forms of support during your TA career at UCSC.

Over- and Under-Preparation

Adapted from a UC Davis TA manual

It can be difficult to gauge how much material to cover in a class and how much preparation is necessary before each meeting. When preparing a class or section, it is useful to keep student learning in close focus.

Consider the learning tasks that the students are being asked to master, their capacity to meaningfully engage with and integrate the material, and the steps necessary to reach a higher level of understanding. Sometimes, in light of these questions, "less" can be "more": helping students to grasp and confidently apply a key concept or example, intensively explored in class together, can be more effective pedagogically than covering large amounts of material.

Some TAs spend days preparing for a one-hour class in which only a fraction of the material and activities they planned for is included. This can cut into your schoolwork, progress toward degree, and time for self-care. Some TAs do not spend enough time planning, and experience significant anxiety, fear, guilt (for letting students down), and self-criticism.

Balance and moderation are key. Aim to be prepared enough to feel confident, but not spend an inordinate amount of time to do so. Remember that you are facilitating student learning of the material and not lecturing or attempting to solve all questions.

SECTION 2: WHAT TO DO AND KNOW BEFORE THE FIRST DAY OF CLASS

Plan for a Successful First Day

See [the Appendix](#) of this handbook for a sample first day lesson plan.

Visit the classroom. We highly recommend visiting the room before you begin teaching, and testing any technology that you may plan to use. (You may need to bring a computer adaptor to utilize the media equipment.) You can find out what equipment is available in a classroom by visiting UCSC's [Learning Technologies website](#). To access the media cabinet, request the media code for your section or lab classroom via an IT ticket, as explained [here](#). For on-call support for using the classroom media equipment, contact the number listed on the media cabinet.

Arrive early and stay a few minutes after class. Allow plenty of time to set up before students arrive. Make sure that the media you plan to use works. Try to establish a comfortable atmosphere by chatting with students as they trickle in. Display important information (e.g., section number, your name, office hours and location, your email), either on the board or on the projector screen, so that students know they are in the right place as they arrive. It can also be helpful to write or project the class agenda. Stay a few minutes after class to answer any questions about the course or the material you covered that day, or to address any logistical concerns students may have.

Dress comfortably. Wear what makes you feel comfortable and confident.

Introduce yourself. Generally, the instructional setting at UCSC is informal, and TAs often ask their students to call them by their first name. However, what your students call you is up to you. Consider sharing some information about yourself, such as where you are from, how you got excited about the field and/or what you find most compelling about the subject. Stating your gender pronoun can demonstrate that you are interested in creating an inclusive classroom space.

Explain section/lab expectations, including the objectives of the section, deadlines, homework, expectations for participation, guidelines regarding the use of technology in the classroom, academic integrity policies, and parameters for communicating with you. Let students know what they should bring to class (e.g., text(s), notebook, etc.). Review your section syllabus, or make a list on the board. Students who understand a course's objectives learn more quickly.

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? Explain what your responsibilities are as a TA in that particular course.

Let students know how and when they can communicate with you. Many faculty members prefer to communicate with students via email or in person during office hours. Some provide students with their telephone number(s). If you do so, note when it is appropriate to call (e.g., within certain hours? any time? are texts ok?) and how/when you will respond. Some instructors provide

students access to virtual office hours, such as by using the “Chat” tool in Canvas, to accommodate students’ work schedules.

Bring a copy of your class roster so that you can take attendance, or have a sign-in sheet. Take notes on how to pronounce students’ names and what gender pronouns they go by. [See the Appendix of this handbook for a sample introductory questionnaire](#) that can help you learn a bit more about your students.

Have students introduce themselves, either in small groups or pairs. Introductions 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. Introductions may include sharing their name and major, as well as information pertinent to the course. See the list of “icebreakers” in the “Learning Students’ Names” section for more ideas.

Act with confidence. Speak slowly, clearly, and loud enough to be heard. Try to make eye contact with all of your students, not just those seated in the very front. You don’t have to read or know everything before the first class (but you should read the assignments for that day).

Develop a Section Syllabus

Often TAs develop a syllabus for their section that describes expectations, policies, and other key information. Check with the course instructor to see if a sample exists and how much freedom you have in establishing section policies. A section syllabus can complement the main course syllabus by including a combination of the following:

1. Your contact information (and any limitations as to time or method of contact)
 2. Office hours, including time and place
 3. Information about what will happen during section/lab time, and what the expectations are for participation and preparedness
 4. Reading list, required texts (and where to get them), if not already listed on the main course syllabus
 5. A reminder of major assignments and their due dates
 6. A reminder of the course policy for late work and make-up exams
 7. Course grading policies and a breakdown or explanation of how you assign grades (your rubric, ideally determined with the teaching team)
 8. Guidelines and grading breakdown for class participation, attendance, lab, and group work
 9. University and course-specific policy on academic integrity and plagiarism
 10. University policy for students who require Disability Resource Center accommodations
 11. Policies regarding the use of laptops, phones, and/or tablets in class
 12. Expectations for respectful and inclusive conduct in class (note: it can be useful to have students collaboratively generate these expectations for themselves and their peers on the first day)
 13. Policy and procedure for grade disputes (as determined with the Instructor of Record)
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Learning Students' Names

Knowing names goes a long way toward establishing a respectful, engaged, accountable, and inclusive classroom. It is not only important for you to learn students' names, but it is also important for students to learn each other's names. There are a number of "icebreakers" and exercises from which you can choose to make learning names a meaningful classroom activity. Here are a few (many more are in this [list](#) compiled by the Center for Innovation in Teaching and Learning at Indiana University Bloomington):

1. Write several interview questions on the board (e.g., Why are you taking this class? What is your favorite book (or movie)? What did you do this summer?). Have students pair up with someone they don't know and interview them and then report what they learned to the class.
2. Have each person say their name, pronouns, and an interesting fact about themselves.
3. Make a 5×5 grid to use as a Bingo sheet. In each box, write a "fun fact," or something that at least one of your students will probably relate to. Some examples include: speaks two or more languages; plays music; is from California; has traveled outside the U.S.; was born outside the U.S.; is left-handed. These facts can also be related to the discipline of the class. Invite your students talk to each other until they find matches; the first to find all of them wins.
4. Distribute "table tents" or name cards, asking students to write their name they want to be called in class (with pronunciation instructions if they want) and one memorable sentence or piece of information about themselves.

Classroom Media

Most classrooms have technology capabilities, though some have more equipment than others. UCSC's Learning Technologies manages a [list of equipment](#) in each classroom. Generally, equipment is locked in a media cabinet and you need a code to access it. You can request the code for your section or lab classroom via an Information Technology (IT) ticket, as explained [here](#). Information Technology Services (ITS) also provides [tips for projecting data in the classroom](#).

For assistance Monday through Friday, 8:00 a.m.-5:00 p.m., call 831-459-5858. If you need help after hours, please call the Campus Public Safety Dispatch Center at 831-459-4861, which will contact someone to help you.

Note that adaptors (to connect your laptop to the projector screen) are not provided; all instructors must bring their own. Check the list of equipment for your classroom to see what kind you may need.

UCSC's Learning Management System

This campus uses [Canvas](#), a robust learning management system, to enable faculty and TAs to interact with their students, manage grading, post materials and announcements, and more. The

[Faculty Instructional Technology Center](#) offers online and in-person training and support for instructors who utilize or would like to start using Canvas. 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.

UCSC's Academic Information System

[MyUCSC](#) is the university's online academic information system portal for students, faculty, and staff. It is used by students to enroll in classes, check grades, view financial aid and billing accounts, and update their personal information. Instructors and TAs can view and print class rosters and post grades in MyUCSC. Users log in to MyUCSC using their [CruzID](#) and CruzID Gold password.

Class Enrollment

Permission numbers are required to add all classes (except for independent studies) after the seventh day of instruction. Departments may also close a class at any time prior to the seventh day and manage enrollments using permission numbers.

To learn how to access a roster at MyUCSC, see the [FAQs for Faculty](#) at the Registrar's Office. To learn how to enter (or amend) grades, and when students can view grades (and more), see the [Grading FAQs](#).

Privacy of Student Records

The Family Educational Rights and Privacy Act (FERPA) is a federal law designed to protect the privacy of student education records. The Office of the Registrar provides [a quick overview](#) of the requirements of the law as well as [answers to key questions](#) that TAs and faculty often ask.

Inclusive Instruction for Students with Disabilities

UC Santa Cruz is committed to equal educational access for students with disabilities. State and federal laws, including the Americans with Disabilities Act (ADA), require that reasonable measures be taken to eliminate barriers to learning and give all students equal access to education. At UCSC, the [Disability Resource Center](#) (DRC) promotes a supportive, equitable learning environment by providing services and approving and coordinating accommodations requests for students with both permanent and temporary disabilities. Accommodations and services include note-taking assistance, adaptive equipment or furniture, extra time on exams, and a distraction-reduced testing space.

Students with disabilities who require accommodations submit an "Accommodation Authorization Letter" to the instructor of each class, at the beginning of each quarter. Disability-related information and affiliation with the DRC are confidential matters protected by [FERPA guidelines](#). It is therefore important not to identify DRC students or acknowledge individual requests

for accommodations in public. In order to protect their confidentiality, students are encouraged to submit these letters to instructors during office hours or by appointment.

A significant number of DRC students require course materials in alternate formats (large print, electronic, and/or close-captioned, etc.). Therefore, handouts will not be accessible to these students until the DRC converts these materials into formats that are useable by students with various print-related disabilities. The DRC asks for a two-week lead time to convert documents. Documents that are crooked or have underlining or notes in the margins are particularly difficult to convert, so it is important to keep an inclusive design in mind when coordinating materials for a course.

Videos and websites can also be inaccessible to students. It is therefore important to select video content (DVDs, YouTube videos, etc.) that has closed captioning. Best practice dictates turning captions on, regardless of having a student who is deaf or hard-of-hearing in class. The [Faculty Instructional Technology Center](#) at McHenry Library can also help you check whether your course content (websites, PowerPoints, PDFs, etc.) is accessible.

The DRC website provides [additional information for instructors](#). If you have any questions about a student's letter or accommodation, please contact the DRC at 831-459-2089 or email drc@ucsc.edu.

Title IX

Title IX is a comprehensive federal law that prohibits discrimination on the basis of sex or gender, including sexual harassment and sexual violence, in any federally funded education program or activity. State law and the [UC Policy on Sexual Violence and Sexual Harassment](#) additionally prohibit discrimination based on gender identity and sexual orientation, and these forms of discrimination may also constitute sex discrimination covered by Title IX.

UCSC's [Title IX Office](#) is committed to fostering a campus climate free of sex discrimination, including sexual harassment, sexual violence, and gender-based harassment and discrimination. The Title IX Office provides assistance in resolving complaints of sexual harassment, sex discrimination, and sexual violence (sexual assault, dating violence, domestic violence, stalking, and invasions of sexual privacy) through alternative resolutions and formal investigations. The Title IX Office also provides safety and other interim measures as necessary, with or without a formal investigation. In addition, the Title IX Office conducts training about sex/gender discrimination and reporting and responding to such incidents, implements public awareness campaigns about Title IX issues, and oversees all sexual violence prevention training on campus.

If you have experienced or witnessed prohibited conduct, you may file a report using the [public reporting link](#) found on the Title IX website, or contact the Title IX Office at 831-459-2462 for a consultation on options and resources. Confidential and other resources are included in the [Resources and Options brochure](#). Additional information can also be found at [the Title IX Office website](#) and the [Sexual Violence Prevention and Response website](#).

According to UC Policy, all UC employees (except for specifically designated “confidential” employees at resource centers like CAPS and CARE) are required to report incidents of sexual harassment and sexual violence *involving students* to the Title IX Office. This

reporting requirement applies to graduate student TAs and other student employees. After receiving a report from a third party, the Title IX Office will reach out to the complainant to provide resource and reporting information; the complainant can decide whether to speak with the Title IX Office and/or access confidential resources such as [Campus Advocacy Resources and Education \(CARE\)](#) and [Counseling and Psychological Services \(CAPS\)](#).

For more information on the process of reporting, refer to the [Reporting Flowchart for Graduate Employees](#). The [Faculty Guide for Reporting](#) includes further information about what must be shared with the Title IX Officer, how to best disclose your obligation to report to someone who may have experienced an incident, and how to refer others to confidential resources on campus.

All graduate students are required to complete an [annual online sexual violence/sexual harassment prevention training](#) called “Think About It: Graduates.” Graduate students must complete the online training **each** academic year. UCSC wants to ensure that all students are aware of the resources available to them, and repeated trainings increase retention of the material and reduce the occurrence of harassment in the community. To access the online training, go to www.campusclarity.com and click “Login to Training” to begin the registration process, using your UCSC email address to register. For technical support, email ccsupport@everfi.com or call (800) 652-9546.

In addition to the annual online training, all incoming graduate students are required to complete an in-person training upon entry into UCSC. A graduate student who does not complete the required Sexual Violence Sexual Harassment Prevention Trainings will face enrollment holds.

The trainings are mandatory and there are no waivers. An alternate training is available for those who have difficulty with the content due to a previous experience of sexual misconduct. Please contact care@ucsc.edu to request an alternate training. All requests for alternate trainings will be kept confidential.

Copyright and Educational Use of Materials

Copyright is legal protection for certain creative works that can affect how you are legally allowed to copy, display, perform, or adapt works in and for your classrooms. The concept of “fair use” may enable you to use something developed by another person in whole or in part without payment or permission. For a helpful summary of copyright issues as they pertain to teaching, see [the University of California webpage on Copyright in the Classroom](#).

If you don’t want to worry about [whether your use of certain material is “fair,”](#) and the work you want to use is included in a library subscription or database, you can provide your students with a link rather than a PDF. You can do this from the [UC-eLinks](#) menu for any article through a university library-subscribed database. You can get to the UC-eLinks menu by entering citation information into [Citation Linker](#). Once you’re at the UC-eLinks menu screen, look for the option to Copy & Paste Citation.

In an Emergency

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 there spaces in which you and/or students could potentially hide if needed? Sign up for the [UCSC Cruz Alert system](#), which provides timely information and instructions via email, text, and phone during emergencies or other urgent situations related to campus and the Santa Cruz community. The [Office of Emergency Services website](#) provides information on emergency preparedness and safety.

UCSC asks community members to identify and communicate behaviors of concern, with the idea that we are all responsible for each other's safety. If you see something, say and do something about it—report any concerning behavior and suspicious activity. Visit [the See Something, Say Something website](#) for a quick reference on emergency support on campus.

If you are concerned about the immediate health and safety of someone on campus, call 911 or campus police (831-459-2231).

SECTION 3: UCSC STUDENTS AND CULTURE

Campus Demographics

In Fall 2018, UCSC's student body totaled 19,700 students, including 17,792 undergraduate and 1,908 graduate students.

The campus is diverse, not only in the racial/ethnic identifications of students, but also in the experiences, cultural identifications, and educational histories and goals that students add to the campus. In Fall 2016, 42% of the entering undergraduate students at UCSC were [first-generation students](#), that is, students whose parents have not graduated from a four-year U.S. higher education institution. [Institutional data from 2018](#) includes details on the ethnic, race, and gender identifications of students, geographical distribution of students, most popular degrees, time to degree, and more.

Crafting an Inclusive Classroom

Adapted from Barbara Gross Davis' Tools for Teaching (2009), and from Shari Saunders and Diana Kardia's "Creating Inclusive College Classrooms" at the University of Michigan Center for Research in Learning and Teaching

Here are several practices that you can adopt in your effort to craft a more inclusive learning environment that promotes mutual respect, acknowledges and values multiple perspectives and experiences, reduces students' experiences of marginalization, and supports the academic success of all students.

“We sometimes contend that if a course's content is not in direct conversation with issues having to do with difference and social justice, then that course's classroom is not a place where issues of inclusivity can be addressed or fostered. ... 'My courses have nothing to do with diversity' ... is often a sentence that discharges us from further responsibilities in the matter. ... **All classrooms can contribute to an inclusive climate.** ... In every class you teach, actively or passively, you're telling the inhabitants something about the conditions in which they are attempting to grow and thrive. Your class is a small world. What kind of world would you like it to be?”

—Mary Armstrong, *Small World: Crafting an Inclusive Classroom (No Matter What You Teach)*

Recognize your assumptions, biases, and stereotypes. Consider the assumptions you might hold about the learning behaviors and capacities of students, as well as about their intersecting social identities (e.g. gender, race, ethnicity, language, disability, sexual orientation). For example, the assumption that all students will seek out an instructor's help when they are having difficulty with coursework may not account for a variety of reasons why students may not feel comfortable asking for help, or why they may be unfamiliar with the practice of seeking out instructors during office hours. As another example, the assumption that a student's writing skill corresponds with their intellectual ability does not account for the fact that students have varying degrees of experience with academic forms of writing. Becoming aware of such assumptions can help you to develop teaching practices that are more inclusive and that actively support student achievement.

Follow up on recognizing your own assumptions by reflecting on your teaching strategies and considering how students interact with you and with one another in the classroom. The University of Michigan Center for Research in Learning and Teaching (CRLT) provides a [helpful checklist for reflection](#).

Treat each student as an individual. Avoid making assumptions about individuals based on their identification (or perceived identification) with a particular group or social identity. While it is important to be aware that students might express views that reflect their own experiences, and that cultural differences might shape students' written work and responses to the course material, it is also important to craft a classroom environment where each individual can develop their capacities, critical thought, and knowledge without being limited by others' assumptions about what they should think, believe, or feel. It would be a pedagogical mistake, potentially hurtful or offensive, to expect students to participate in classroom discussion as a "representative" of any particular group. Creating a safe atmosphere for students to choose to express their individual perspectives is very different than asking them to speak in the name of any category of diversity.

Develop rapport with students and value student responses and effort. Students are more likely to participate, ask for help, or seek out advice if they feel comfortable talking to you and if they get the impression that you care about their learning and well-being. You can build rapport with students by learning and using students' names and pronouns and encouraging other students to use them; expressing enthusiasm for student contributions and positively reinforcing participation with verbal cues (e.g., "that's a great question") and nonverbal cues (e.g., smiling, nodding, making eye contact); incorporating peer learning in the classroom, allowing students to learn from one another through pair and group work; and acknowledging when students have performed well on an assignment or exam, have had a great discussion or lab, or have shown maturity and depth in analyzing material.

Be clear about expectations and make any hidden knowledge explicit. Many UCSC students are the first in their families to go to college (approximately 42% of the entering class in 2016 were first-generation college students). At times, first-generation college students may not have the implicit knowledge about how higher education works. For instance, they may not already know that they can seek help during office hours, that papers need to be formatted and cited in a particular way, how to research information online or at the library, or how to find internships or research opportunities.

“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.”

— Dan Villarreal, UC Davis TA, Linguistics, 2015–16

Tactfully manage mistakes and incorrect answers. Avoid making a negative comment when a student makes a mistake or responds with inaccurate information. Instead, acknowledge the student's effort and ask guiding questions that can help the student arrive at a more correct or more informed response. If it is appropriate to ask the full class for help in finding more accurate information, do not single out the student for their incorrect answer and instead de-

personalize the question by asking how the group might collectively come up with a stronger understanding of the topic.

Directly address tensions, “hot moments,” and problematic patterns of interaction. In order to promote respectful, productive disagreement and prevent potential conflicts from escalating, it is important to acknowledge uncomfortable or difficult moments and invite conversation about why a particular topic or a particular student comment might be causing discomfort. If a student’s comments devalue another student’s or group’s perspective or experience, it is important to respectfully challenge those comments. Likewise, it is important not to ignore inappropriate, offensive, or disruptive behavior. One strategy is to de-personalize disrespectful or demeaning comments or behaviors by explaining why they can be interpreted as inappropriate and offensive from an academic standpoint (e.g., lack of evidence, outside the scope of the discussion, illogical reasoning). Another strategy is to invite the class as a whole to consider why or how such comments or behaviors in general could be potentially harmful or exclusionary. The University of Michigan CRLT provides [a helpful set of guidelines for handling “hot moments”](#)—sudden bursts of tension or conflict in the classroom.

Provide examples that explore a diversity of experiences and perspectives. Ensure that you do not assume that all of your students share similar experiences to yours or to one another. If possible and appropriate—and without stereotyping students—encourage responses from different points of view (e.g., voices of different backgrounds) and use varying examples that speak to a variety of social and cultural identities.

Be mindful of the variety of students’ needs in class. When showing visuals in class, describe the image without assuming that everyone can see it. When showing a video or other media with sound, include captioning. 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 colorblind (instead, use shapes or both colors and shapes). When speaking, face the class to help facilitate speech reading, captioning, and sign language interpreting.

Check in and ask. Encourage feedback from students about their experiences in the classroom, either through open discussion or through feedback check-in forms. Questions such as the following can be helpful for assessing the climate of the classroom: Does the instructor treat students evenhandedly and equally? How comfortable do you feel participating in this class? What makes it easy or difficult for you to participate?

Principles of Community

UC Santa Cruz is committed to promoting and protecting an environment that values and supports every person in an atmosphere of civility, honesty, cooperation, professionalism, and fairness. As such, the university has adopted and champions [Principles of Community](#) to guide us in embracing diversity, being open and purposeful, promoting mutual respect, being just and disciplined, and celebrating our achievements. We ask that you read and embody these principles.

Textbook Support for Students

If you encounter students who are unable to purchase textbooks because of financial hardship, please direct them to the [Educational Opportunity Program \(EOP\) Textbook Lending Library](#). To use the lending library, students must demonstrate financial hardship and must have exhausted all other forms of financial aid available to them, including all forms of loans (subsidized and unsubsidized). Further information is available by contacting eoplib@ucsc.edu or (831) 459-7086. Additionally, some textbooks are available online (or for checkout) from the UCSC library. Instructors of record will often place course materials on reserve at the library, for students to check out and utilize on limited loan periods (e.g., 2- to 24-hour loan periods).

Tutoring and MSI Support

[UCSC's Learning Support Services \(LSS\)](#) provides course-specific academic support services for undergraduate students. Approximately 40% of UCSC undergraduates use LSS academic support programs annually.

Modified Supplemental Instruction (MSI) provides course-specific, small (maximum 10 students), interactive learning sessions that meet once each week. LSS also offers small group tutoring sessions for specific courses. Additionally, drop-in math tutoring and drop-in writing tutoring are available during late afternoons and early evenings throughout each quarter.

For International Teaching Assistants

Adapted from the UC Davis TA Handbook and the [Vanderbilt Center for Teaching "International Teaching Assistants Guide"](#)

The U.S. educational system may be quite different from the one that international TAs are accustomed to, for both linguistic and cultural reasons. These differences include different expectations of student academic preparation and performance, different policies governing grading and citation, and different relationships between students and teachers. In addition to this guide, the [Global Engagement](#) office, and its [International Student and Scholar Services](#), can offer further resources to international graduate students.

Cultural differences in teaching methods and in appropriate or expected conduct for students and teachers can create additional challenges for international TAs. How figures of authority, such as teachers, behave can vary in different cultural contexts. For example, in U.S. universities, the classroom environment tends to be informal, students tend to expect instructors to be approachable and to appear friendly, and feedback to students tends to be affirming and non-authoritarian. Further, U.S. university teachers may expect more independent work from students than do teachers in many other regions and cultures. There is a difference in emphasis on how much teachers tell their students and how much they encourage students to learn on their own. These differences affect the kind of homework, the type and extent of classroom discussion, and the style of papers and examinations that teachers and students expect.

Teacher and student behavior in the classroom is also culturally influenced. There are subtle distinctions in the form and quality of posture and body movements, spacing and timing, eye contact, smile, and head nod. For example, students in the U.S. respond well to what are called “immediacy cues,” which are forms of verbal and nonverbal communication that can create the sense that there is a reduced distance, both physical and psychological, between instructors and students (LeGros and Faez 2012). Such cues include when an instructor makes eye contact, smiles and nods, or uses other nonverbal means to indicate their attention to the student (Teven and Hanson 2004), or when an instructor verbally invites students to speak or affirms a student’s contributions (Neuliep 1997). These cues tend to indicate to students that their instructor is friendly and interested in the class and in their learning; students can perceive instructors who do not exhibit these cues as uninterested (Fitch and Morgan 2003).

Teaching Tips for International TAs

Being an international TA is an asset. When you enter the classroom, consider yourself a graduate student teaching assistant and not a “foreign” teaching assistant. Introduce yourself, including your educational and cultural background, interest in the subject matter, and research focus. The fact that you have experiences with and knowledge of another culture, educational system, and/or language is a benefit to the school and to the classroom.

Talk to colleagues and friends, and do classroom observations. Talk with other TAs about how they handle discussions, grading exams, reading papers, designing classroom activities, and any classroom difficulties. Ask colleagues if you can visit their classrooms and observe their approaches to teaching, especially if you are new to the U.S. classroom or to teaching more generally. When doing a classroom observation, ask your colleague for a convenient time and day to visit the class, and plan to arrive to the classroom early so that you can find an appropriate seat, likely near the back of the room. It is also helpful to plan discussion time after an observation, in order to ask your colleague any questions you might have and to discuss your experience as an observer.

Be aware of common characteristics of U.S. 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 an instructor by their first name. This kind of informality usually does not necessarily 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 generally 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. Students are often expected to think independently and creatively about issues and concepts.

Address your command of English. Address any potential language comprehension issues directly with your students as early as possible. If English is not your first language or if you have an

accent or speak a variety of English that is not common within the U.S., ask your students to let you know if they do not understand something. You could say, for example, “I’ll do my best to make sure you understand me. It’s important for everyone to listen to and learn different accents and cadences. Of course, let me know if you do not understand something I say.”

The following are additional strategies to help you communicate more clearly and effectively in your classroom:

- Speak with confidence and make eye contact with students, which can help you discern whether they are understanding.
- Encourage students to ask you to repeat if necessary and to see you after class or during office hours for further clarification.
- Write out each day’s activities, difficult terms, and key concepts on the board or a handout. If you pronounce a word in a way that varies from standard academic usage, or have difficulty explaining a concept, write the word on the board. Often students will help by restating the word or concept.
- Practice pronouncing keywords and other vocabulary that you use frequently.

“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, UC Davis, 2015–16

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

If some students resist your accent and language use, keep in mind that the reason likely has little to do with you. Some students lack prior experience with people from other countries, and those who have not been exposed to accents other than their own may automatically think that they cannot understand different varieties of English or non-native English speakers. Emphasize how being exposed to different accents will add to a student’s own perspectives and worldview. Most importantly, do not be discouraged about your language skills.

English Language Support

[International Student and Scholar Services](#) offers many [English language resources](#) for graduate students desiring to practice their English language skills.

Selected Additional Resources for International TAs

- Axelson E., Bogart P. "[Practical Tips for New Graduate Student Instructors Who Have Been Educated Internationally.](#)" University of Michigan Center for Research on Learning and Teaching.
- Kizer S. [International Teaching Assistants Guide](#). Vanderbilt University Center for Teaching.
- LeGros N., Faez F. (2012) "The Intersection Between Intercultural Competence and Teaching Behaviors: A Case of International Teaching Assistants." *Journal on Excellence in College Teaching* 23: 7-31.
- Madden C.G., Myers C.L. (Eds.) (1994) *Discourse and Performance of International Teaching Assistants*. Alexandria, VA: Teachers of English to Speakers of Other Languages.
- Nyquist J.D., Abbot R.D., Wulff D.H., Sprague J. (Eds.) (1991) *Preparing the Professoriate of Tomorrow to Teach: Selected Reading in TA Training*. Dubuque, IA: Kendall/Hunt.
- Pica T., Barnes G.A., Finger A.G. (1990) *Teaching Matters: Skills and Strategies for International Teaching Assistants*. New York: Newbury House.
- Sarkisian E., Maurer V. (1998) "International TA Training and Beyond: Out of the Program and Into the Classroom." In M. Marincovitch, J. Prostko, F. Stout (Eds.), *The Professional Development of Graduate Teaching Assistants*. Bolton, MA: Anker.
- Smith J., Meyers C.M., Burkhalter A.J. (1992) *Communicate: Strategies for International Teaching Assistants*. Englewood Cliffs, NJ: Regents/Prentice Hall.
- Spears R.A. (2000) *NTC's American Idioms Dictionary: The Most Practical Reference for the Everyday Expressions of Contemporary American English*, 3rd ed. Chicago: NTC.
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SECTION 4: PEDAGOGY

Adapted, in part, from the UCSC Education Department's TA Handbook (fall 2012), from Chism et al. 1992, from the University of Florida TA handbook, from the University of Michigan Center for Research in Learning and Teaching, and from the Vanderbilt University Center for Teaching

Pedagogical approaches based in a constructivist theory of learning, an awareness of sociocultural perspectives, and a student-centered teaching philosophy can support student success at UCSC.

In constructivist theories of pedagogy, teaching is understood not as the transmission of knowledge to students. Rather, knowledge is understood as co-constructed by students through the learning process, and through the activation of their prior knowledge in relation to new information. Instruction largely involves asking questions and identifying ways for students to engage with the course material so that they can, collaboratively and individually, construct their own meaning from and understanding of the topics. Learning happens when people talk about what they have read or heard, when they process and question information, and when they create their own ways of talking or thinking about the material.

An approach to teaching that embraces sociocultural perspectives involves the recognition of how culture, race, ethnicity, gender, sexual identity, language background, and power are a fundamental part of teaching and learning. Among other things, they affect which knowledges are considered legitimate in formal learning spaces, which methods of learning are emphasized or ignored, and which ways of being in the world are applauded or criticized. These constructs are embedded in the histories, stories, and politics of our society and cannot be ignored in the classroom. Students come in to the classroom already in possession of a lot of knowledge and experiences. Find out what they already know about the course topics and related domains and build on it. Find ways to connect the course material to their prior knowledge and life experiences.

A student-centered approach to teaching emphasizes the wide range of a learner's characteristics and experiences that are engaged in any learning situation and that contribute to a student's successful learning. Class sessions can be organized in a way that recognizes and makes space for those dimensions of learning that may not be immediately recognizable in an academic setting—for instance, aspects of a student's personal history that may influence their response to particular material or level of familiarity with higher education culture

Balance and vary your teaching methods, and turn some of the responsibility for learning over to the students. They can talk with each other to clarify new concepts, gather in groups to formulate questions they still have, and share their own experiences within the context of the course material.

Active Learning

Active learning is a process in which students are actively engaged with their own learning processes, through engaged analysis and synthesis of course material and meaningful in-class activities. As an instructional method, active learning invites instructors to introduce activities into the classroom that encourage students' direct engagement with the course material, and is often contrasted with a lecture-style technique that imagines an instructor imparting information and knowledge to a group of passive students (Prince 2004). As the Vanderbilt Center for Teaching stresses in [their review of](#)

[Active Learning frameworks](#), active learning requires that students “do and produce something,” which allows them to engage in higher-order thinking and instructors to assess understanding.

Techniques for creating an active classroom are wide-ranging and can include asking students to write a quick, one-minute paper to respond to a particular question or to summarize a key idea; inviting students to work on a problem or question individually and then share their responses with a partner before synthesizing ideas with the whole class (“think-pair-share”); and using performance and theater techniques to get students to engage kinesthetically in their learning. The University of Michigan Center for Research in Learning and Teaching offers these and [a range of other techniques for encouraging active learning](#).

Those who study active learning emphasize that activities introduced into the classroom to encourage meaningful engagement must be designed to help students develop a deep understanding of the course material. Good strategies for achieving this goal include designing activities around important learning outcomes and encouraging students to think explicitly about what they are learning (Prince 2004; Wiggins and McTighe 1998). Importantly, active learning techniques have been shown to create more inclusive classrooms: they can help close the achievement gap for students from underserved backgrounds and with varying access to college preparation, and can encourage gender equity in the classroom, especially in fields of study that have historically not been gender-diverse ([Haak et al. 2011](#); [Lorenzo et al. 2006](#)).

Discussion-Based Learning

Engaging in discussion can help students more effectively integrate and remember the course material—especially when they are invited to think through topics out loud, relate those topics to what they already know, and receive immediate feedback from their instructor and peers in response to their ideas (McKeachie 2002). Discussion can further benefit students by allowing them to explore multiple perspectives, encouraging reflection about their own assumptions and frameworks, developing their capacities for clear communication, and affirming their position as co-creators of knowledge in their own education (Brookfield and Preskill 2005). The following tips can help you to facilitate productive and meaningful discussions.

Set discussion guidelines. Before beginning a discussion-based class, setting guidelines for interaction can help clarify expectations and goals, as well as promote mutual respect and inclusion. Collaboratively setting discussion guidelines with the class can invite students to see themselves as active participants from the start. The University of Michigan CRLT provides [examples of discussion guidelines](#).

Prepare strong discussion questions. Open-ended questions that invite more than one response or more than one correct answer are best for participatory discussions. The kinds of questions you ask should depend on your goals for the discussion. For example, you may want students to practice critically assessing or interpreting an idea, to compare two or more ideas, to apply a theory to a new example, or to work through a particular problem to generate multiple solutions (McKeachie 2002). The University of Michigan CRLT provides [helpful tips for using discussion questions effectively](#). In addition to introducing the discussion questions yourself, you can also invite students to prepare questions for a discussion or debate, either ahead of time as a homework assignment or during class.

If inviting student-generated questions, it is often important to first model how to form effective discussion questions that invite engagement.

Summarize student responses and ask follow-up questions. Summarizing what you have heard a student say is a great way to indicate your interest in a student's ideas, and provides opportunities for a student to follow up with clarification. Asking follow-up questions can help students further clarify their ideas, better link their ideas to the course material, and engage in higher-order analysis and critical thought. Follow-up questions can also be used to invite the rest of the class to build on an individual's ideas.

Create the conditions for full participation. As a discussion facilitator, it is important that you foster an inclusive space in which everyone has the chance to participate. To encourage participation from reticent students, it can be helpful to ask everyone to take a minute to write down their ideas before beginning the discussion. It is also important to address if one or a few voices are dominating a conversation, such as by letting a student with a dominant voice know that you would like to make sure others have the chance to contribute.

Allow for silence. Expect pauses and silences, especially after asking questions, and remember that moments of silence are often a sign of reflection and thought before students speak up. Students require time to process new concepts, and they may not immediately feel confident about their responses. Try to resist the temptation to prematurely fill the silence with your own answer if the class isn't readily responding to a question. Encourage students to ask for clarification if they do not understand a question or problem. You may wish to break down your question into more graduated steps, leading up to more complex reflection. It can also be useful to ask students to brainstorm and free-write about a question before asking them to respond in discussion.

Leave time for post-discussion reflection. Provide time for students to reflect on their experience in the discussion, what they've learned, or what surprised them or helped them to think in new ways. Reflection can take a number of forms. For example, students can reflect on their experiences individually in a one-minute paper that they hand in as they leave, or each student can share one word or phrase that describes something they learned.

Strategies for Effective Discussion Sections

Compiled from the UC Santa Barbara and UC Davis TA Manuals, and "An Interdisciplinary Approach to Teaching in the Context of War" in Sub/Versions, a working-paper series of the Feminist Studies FRA.

Generally smaller than the lecture portion of a class, discussion sections are places where students have an opportunity to test out ideas, work through problems, clarify confusions, and build learning communities. To encourage students to engage with the course content, you can:

- A. Require students to hand in one-page response papers to that week's readings or class assignments. Make the expectations for these response papers clear. For example, are you asking for summaries of the readings, or critical thought and argumentation about the readings? Regular assignments can help ensure that students do the reading before they come to class.

- B. Save the last five minutes of section for students to write and hand in a question or problem that can be taken up at the next class meeting. Some benefits to this strategy include allowing quieter students a comfortable means of contributing to discussion, and enabling you to diagnose areas in which students may be having difficulty.
- C. Assign groups of students the responsibility for planning and leading some discussions. This works best when students are responsible for a limited topic, problem, or research area.
- D. Have students nominate topics for discussion at the beginning of a section. These can include problems, interesting points, or basic ideas in the text. List the nominations, then have the group pick the ones they want to cover and set the others aside, perhaps for office hours or paper topics.
- E. If the material for the section lends itself, have a two-part brainstorming session. During part one, pose a question and have students list every idea (without discussion or judgment) that they have in response. During the second part, have the group synthesize, relate, and critically assess the ideas as you approach a solution.
- F. Write a course-related word, quote, name, or concept in the middle of the board. Have students brainstorm with this word as a focus, and expand connections out from the source. The base idea leads to more ideas, releases creative thought, clarifies conceptual connections, and provides source links for written assignments.
- G. Assign students to small groups and have each group deal with either the same or different problems or cases. Have one student in each group take responsibility for keeping time and another take responsibility for recording the content of the discussion. Float from group to group, giving guidance and answering questions when needed. When all students in each group have contributed, reassemble the entire section and have someone from each group present to the larger collective. In this presentation component, it is helpful to show that small group presentations build new collective knowledge. That is, rather than have each group simply report what they discovered, prepare follow-up questions or activities that allow the small group work to build toward full-group participation.
- H. Pose an either/or question and debate. Have the class divide physically into those who favor each side and those who are undecided. Have a debate, with the undecided free to contribute at any time. When students change their view, ask them to move to the group with which they now agree. This kind of device can help students clarify their values, appreciate varying levels of argument, and see the implications of the positions that they choose. Occasionally it is useful to assign students to specific sides of a debate and then switch the sides in the middle. This ensures that all students can practice making different arguments.
- I. Before class, make a list of statements about a current course topic that the students can affirm or dispute. When students have assembled, label one side of the room “agree” and the other “disagree.” Read the questions aloud and have the students physically move after each question to show their response. When there is time, have the students on each side of the room discuss among themselves why they are there and then present their reasons to the others. Students find it very interesting to see their alliances shift from question to question. Undecided locations can be included, and the corners of the room can be used to provide

greater variation: label them “agree strongly,” “agree somewhat,” “disagree somewhat,” and “disagree strongly.”

- J. Pose a comparison-and-contrast question about two or more concepts from class readings. Have the students free-write all the various possibilities of connection and disparity they can think of. Then, synthesize the lists on the board and use them to analyze the concepts or theories, or to introduce and evaluate the readings.

More Resources for Discussion Strategies

Brookfield SD, Preskill S. (2005) *Discussion as a Way of Teaching: Tools and Techniques for Democratic Classrooms*. San Francisco: Jossey-Bass.

Cashin WE. (2011) “Effective Classroom Discussions.” IDEA Paper #49. The IDEA Center. <
http://www.ideaedu.org/Portals/0/Uploads/Documents/IDEA%20Papers/IDEA%20Papers/IDEA_Paper_49.pdf

McKeachie WJ. (2002) “Facilitating Discussion: Posing Problems, Listening, Questioning.” *McKeachie’s Teaching Tips: Strategies, Research, and Theory for College and University Teachers*. 11th edition. New York: Houghton Mifflin Company, p. 30-51.

Collaborative Learning

An extension of active learning, collaborative learning emphasizes the importance of interdependence in the classroom, and highlights how students can facilitate one another’s learning through interactivity and exchanging ideas (Smith et al. 2005). Learning with others in a cooperative environment has been shown to promote higher academic achievement than in learning environments that focus solely on individual knowledge-building or that encourage competition among students. Moreover, because collaborative or cooperative learning can help students establish positive peer networks, these techniques can also increase student retention rates and thus promote student success (Smith et al. 2005).

Group Work

Adapted from “Forming and Facilitating Groups” at the UCSC STEM Collaboration Hour (August 2017), presented by Colin G. West, Postdoctoral Science Education Fellow in Physics at UCSC

There is evidence that working collaboratively in groups can enhance students’ academic achievement, increase students’ retention of information and encourage deeper learning, allow students to build communication skills and other valuable professional skills, reduce attrition rates, and build community (Oakley et al. 2004). Group work can be employed in any field of study, in both large and small classroom spaces. The following strategies are helpful to keep in mind when designing activities that involve group work and can help increase the effectiveness of group work to promote student learning.

Match group formation techniques with your group-work goals. How a group is formed can affect how well a group functions. In general, studies show that groups of 3-5 members are ideal.

- Student-selected groups: There are benefits and drawbacks to students selecting their own groups. Self-selecting groups can be more comfortable for students and may be more beneficial for shorter-term projects, but they also risk isolating students from underrepresented groups, shy students, and students with weaker academic performance.
- Instructor-selected groups: An instructor can randomly select groups, which can promote equity and inclusion in the classroom, and can frequently rotate groups in order to introduce students to multiple perspectives and working styles. More deliberately constructed groups take more foresight and planning, and can be utilized for longer-term projects. One approach to deliberately constructing groups is to match students with varying skill levels so that novice learners can learn from more expert peers, and more expert students can learn by teaching their peers. Another approach is to have students self-identify strengths or skillsets that are necessary to the particular project, and to form groups in such a way that each skill/strength is represented within a single group.

Make the goals of and reasons for group work explicit. Students are more likely to be motivated to participate in group work if they understand why they are doing it. Letting students know the pedagogical reasons for putting them into groups—for example, it can help them learn the concepts more effectively—can increase the chances of group work being effective.

Introduce students to some best practices for group work, and encourage them to create their own guidelines. Let students know that the group experience will be more beneficial if each person is accountable to one another and if they each take on a role to increase accountability. For example, each group can designate a note-taker, a reporter, a time-keeper, and other roles that are relevant to the particular project or activity. Advise that each person attempt to contribute equally to the group: those who dominate a group can be a detriment to others' learning, while those who rely too much on others' contributions miss out on the chance to meaningfully engage with the material. It can also be helpful to include a method for students to evaluate their own and their group's strengths and areas for improvement—especially throughout longer-term projects. Studies show evidence that even merely discussing such best practices with students before group work commences can improve group function and students' self-reported satisfaction with their groupmates.

Create a balance between individual tasks and collaborative work, to encourage both individual and group accountability. It's important that each person within the group has the chance to work on a question or a problem, in order to increase everyone's chances of having a meaningful learning experience. One method is to ask students to start off thinking about the question or problem on their own, and then check in with the group to compare ideas or answers. Another method is to include time for individual reflection on one's own participation and on the group mechanisms for handling disagreement, divergence, and consensus-building. Help students avoid the "divide and conquer" method, in which each student takes on a different aspect or part of the assigned activity, as it will only give each student a partial view of the material with which they are engaging.

Acknowledge that group work may be met with varying levels of student enthusiasm.

Especially for students for whom group work has not been a regular practice, group-based activities and projects can be met with some resistance. A good way to manage disinterest in or complaints about group work is to be explicit about the learning goals of the activity, to acknowledge that it may be a relatively uncomfortable or unfamiliar experience for some, and to invite students to try out a new form of engagement.

More Resources for Collaborative Learning and Group Work

Johnson DW, Johnson RT, Smith KA. (1998) *Active Learning: Cooperation in the College Classroom*. Edina, MN: Interaction Book Company.

Oakley B, Felder RM, Brent R, Elhadj I (2004) “Turning student groups into effective teams.” *Journal of Student Centered Learning* 2(1):9-34.

Smith KA, Sheppard SD, Johnson DW, Johnson RT (2005) “Pedagogies of engagement: Classroom-based practices.” *Journal of Engineering Education* 94(1):87-101.

“Teaching Strategies: Using Group Work and Team Work.” University of Michigan Center for Research in Learning and Teaching. <http://www.crlt.umich.edu/tstrategies/tsgwcl>

Universal Design for Learning

UC Santa Cruz is committed to eliminating barriers to learning and increasing educational access for all students, including students with disabilities. Universal Design for Learning (UDL) is a proactive approach to building course materials and designing learning experiences that are accessible to students with diverse abilities. In addition to supporting the accommodations required for students with disabilities, UDL can support all who teach at UCSC in designing accessible classes from the outset.

Key principles of UDL include flexibility in the ways that information is presented and in how students are invited to engage and demonstrate their knowledge, and the reduction of barriers to learning while maintaining high expectations for student achievement. The UDL Framework, defined by the Center for Applied Special Technology, includes:

- *Multiple means of representation:* Providing learners with various ways of acquiring information and knowledge.
- *Multiple means of engagement:* Engaging with learners by bringing in their own interests, providing appropriate challenges, and tapping into multiple ways of inspiring motivation.
- *Multiple means of expression:* Providing learners with many ways of demonstrating and assessing what they have learned.

For ways that you can integrate Universal Design for Learning into your classroom, including for discussions, group work, and presentations, visit [the Universal Design Wiki](#). For more support and resources on UDL, visit [UDL On Campus](#).

Backward Design

Adapted from a chapter in Understanding by Design by Grant Wiggins and Jay McTighe (1998)

There are (at least) two distinct methods for developing educational curricula and learning experiences. In one method, you begin with textbooks, favorite lessons, and tried-and-true activities to develop a class plan. In the other method, you start with the end—the desired results for the class (the learning goals or objectives)—and then derive lesson plans based on the evidence of learning needed to meet those goals and the teaching approaches necessary for equipping students to perform well. In the latter—called backward design—curriculum and lesson-planning are a means to an end, and actively support goals for student learning.

This backward approach to class design requires that instructors determine the measures of success that relate to the goals for learning. Instead of thinking about assessment as something we do at the end once teaching is completed, backward design reminds us that teaching begins with the following questions: What would we accept as evidence that students have attained the desired understandings and proficiencies, and how can we teach students so that they are able to demonstrate those desired learning goals?

The Vanderbilt University Center for Teaching [provides a helpful summary](#) of Wiggins and McTighe’s frameworks for Backward Design.

TAs as Writing Teachers

Adapted from an excerpt in UCSC’s 2003 Center for Teaching and Learning TA Handbook and an article written by Stephen Marcus, founding director of the South Coast Writing Project

Many TAs express concern about the level of writing skills their students display in exams and papers. Below are some ways you can help your students become stronger writers—even if you’re not a TA in the Literature Department. Implementing these strategies may lead to an overall improvement in the quality of your class, even and especially if your class is not in a traditionally writing-heavy field.

Most of the strategies provided here utilize an activity known variously as “free-writing,” “non-stops,” or “free-flows.” The basic technique is simply this: for a given period of time, students write without worrying about spelling words correctly, using grammar and punctuation correctly, etc. The working rule is: get it down, don’t get it “right.”

In general, it’s best to introduce free-writing with one- to three-minute time limits. After students have become accustomed to the procedure, the time span can be increased to five minutes or longer.

Suggested Activities

- Ask students to write three words that they personally thought were of special importance to the day’s assignment. Then, ask them to do some free-writing (for about three minutes) based on any one of the words. Next, have them spend ten

minutes in groups of three, sharing what they've written and generating some questions to ask in class.

- A slight modification of the above: Ask students to write down three words that they personally thought were of importance to the day's assignment. Have them form groups of three to share for ten minutes the words they chose and why they chose them. Then have them do a three-minute "free-flow" based on their discussion. The papers can be used for further class discussions or could be handed in for you to read (but not to grade or mark up).
- Have students do three to five minutes of free-writing prior to class. The topic could be as general or as specific as you wish to make it. For example, in a math class a general topic might be: What do graphs do that formulas don't? A more specific topic might be: What prevents an asymptote from reaching an axis? The discussion could continue or expand on what they've written (e.g., "On the basis of what you've written, how would you answer the following question. . .?").
- Have students do five or ten minutes of free-writing on a given topic, then have them choose partners, exchange papers, and read each other's work. To help them focus their responses, you could ask them first to fill out as many as possible of the following "seed sentences" based on their reactions to what they've read. They can then share their responses. Provide a sheet with spaces for them to complete the sentences:
 - Your paper demonstrates/argues/reveals...
 - The way you approached the topic...
 - Something you might have mentioned is...
 - One thing you brought up that I hadn't considered before was...
 - I was surprised by...
 - Your writing is especially strong when...
- Provide three seed sentences based on the day's work (examples: "Electrolytic reactions can be..." or "The hardest thing for me to understand in today's assignment was..." or "Supply-demand curves sometimes..."). Ask each student to write an ending for one of the three seed sentences. Then form the class into groups based on the sentence and discuss the topic for ten minutes or so. Afterwards, the whole class can proceed to discuss, ask questions about, or be presented with new material on the topic.
- At the beginning of a lab, have students spend three to five minutes writing about any of the following topics:
 - What are they supposed to be investigating?
 - What's the general procedure they'll be following?
 - What mistakes should they be watching out for?
 - What don't they understand about the experiment?
 - What do they understand most about the experiment?

After you've given your orientation to the lab and perhaps responded to questions generated in the course of their writing, you can read quickly through their papers as they're starting their work in order to spot potential problems.

- At the end of a class, have students do five minutes of free-writing based on the class session. Possible topics: “Now, tell me all you can in five minutes about what we covered; quantity, not quality, is important” or “Write for five minutes about the class we had today: what you learned or relearned; what was boring, interesting, confusing, or surprising; what your mind drifted onto when you couldn’t pay attention; what questions you still have—write about anything you want, but write about the class.” Read through these papers to assess the class in general, your teaching, the students’ understanding, etc.

Any of the activities described above can be used to promote and focus group discussions, to assess the state of students’ understanding, to encourage (with regular use) students to come to class prepared, or to help ensure that students have some grasp of the activities they’re about to do (for example, in a lab).

A difficult aspect of using these kinds of writing activities can be changing expectations about what’s supposed to happen in a class that may not typically include writing (such as a math, chemistry, or geology class). The key is to offer these activities as “experiments” on a regular basis. Then notice whether, as a class, the students’ writing on exams improves, whether their discussions are more focused or informed, or whether you’ve enhanced the efficiency of your instruction.

A benefit of such writing activities is that they provide students with opportunities to produce writing that won’t be judged. In addition, reading students’ work can enable the TA to identify serious writing problems that should be addressed. Writing tutors are available on campus, and students should be referred well in advance of paper deadlines. Refer them to [Learning Support Services](#) or the [Westside Writing Center](#).

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 own hands-on learning experience. Below are strategies to help you organize your lab, motivate your students, and encourage deeper learning.

General Tips for Conducting Science Labs

Adapted from UCSC’s 2003 TA Handbook and UC Santa Barbara TA Handbook by Genie McNaughton

The most important thing you can do to ensure that your lab sections run smoothly is to be well prepared. Before class starts, familiarize yourself with the lab storeroom so that time won’t be lost during section looking for necessary equipment or materials. Basic weekly planning might include the following:

Know exactly what the students are supposed to learn. Obtain a copy of the lab exercise and read through it. Make sure you have enough copies for all of the students in your section(s). Remind students well in advance of the first lab to purchase or obtain whatever manuals or supplies are necessary. Let students know what they will need to bring with them to lab.

Perform the entire experiment in advance. By going through the lab yourself, including any required computations, you'll be familiar with some of the stumbling blocks that your students may confront and you'll know the subtler points of the required steps.

Read and study the theory on which the experiment is based. Your thorough understanding of the theoretical aspect of the lab, along with the applicable procedures, will help you handle most questions.

Research the relevance of the experiment, both the techniques being taught and the applications of the theory being demonstrated. Think about actual applications of the material and think of some examples of the relevance of the information beyond the classroom. Be prepared to answer the question, "What's it good for?"

Decide how to introduce the lab most effectively. Before students get underway with the day's lab, they may need you to demonstrate the procedures that they will be following. Is a handout with written instructions in order? Do you want one or two students to demonstrate the experiment to the rest of the class? Will a fifteen-minute lecture about the theory and intent of the lab suffice? Your initial introduction can set the tone and motivation for the remainder of the lab period.

Prepare handouts that enhance the lab or facilitate any difficult calculations.

Provide clear and organized instructions. Don't become overly dependent on a single presentation mode. Use a judicious mix of oral presentations, blackboard demonstrations, handouts, slides, props, whatever works. Show students how to handle and care for equipment.

Help your students focus on the lab work before they start. Ask a few pointed questions, or have students break into small groups for ten minutes at the beginning of the lab while you circulate, asking for questions that students may have about their preparations. You can use this informal assessment to clear up areas of confusion before the lab gets underway.

Demonstrate any part of the procedure that may be problematic. Take the time to anticipate difficulties before everyone starts working.

Enforce laboratory rules, especially if safety is an issue. You should also adhere to the rules because students view you as a model for lab behavior. Making safety concerns known is a necessary first step in avoiding serious problems. Emphasize lab courtesy and be sure to have students clean their area before they leave. Report breakages as soon as possible and set any broken apparatus aside, clearly marked for other students and TAs who will be using the lab after you.

Inform your students of the approximate amount of time different tasks will take so that they can pace themselves accordingly. Let them know when they can use the lab if they need more than the allotted time to complete the exercise.

Provide students with laboratory hints and helpful information such as sample data, the derivation and use of any typical formulas, and calculations of sample lab problems. Such information can smooth out the process of completing a lab.

Inform students of the procedures and rules for writing up and submitting lab reports or results of experiments. If you are as explicit as possible about what you expect in the way of written work, you will facilitate a more inclusive lab experience.

Point out interesting aspects of the experiment whenever possible. Historical anecdotes can increase student motivation for the lab by adding a new perspective to their tasks (instead of being motivated solely by course credit) as well as by breaking up the routine of the section.

Circulate among your students while the lab is in progress and be available to give assistance and answer questions. You can observe your students at work and give them help where it's needed. Don't wait for students to ask you questions; they may be a little hesitant (especially early in the quarter).

Ask a few strategic questions of your own in order to figure out what students do and do not understand (e.g., "Once you plot those points on your graph, how are you going to find the best straight line through them?" or "Why do they tell you to make measurements with the current going both ways through the coil?"). Be aware that there is a difference between hovering around students, which can potentially intimidate them, and circulating around, which can signal that you want to support their learning and be helpful when you're needed.

Check in with students by asking them specific questions about how the activity is going or what they are understanding. 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 (people generally learn well by teaching others) and to make sure everyone in the group is understanding key concepts before moving on. When you answer a student question, consider first asking the other students in the group what they think.

Bring the whole class together 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 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 or interpretations, or to connect the day's work with course concepts or real-world applications. Ending with discussion will also allow you to identify any problems with the lesson so that you can correct them for the future.

SECTION 5: BEST PRACTICES AND COMMON CHALLENGES

Strategies for Facilitating Difficult Conversations

Adapted from the UC Davis TA Handbook

Regardless of their field of study, a TA may have the responsibility of facilitating a heated or sensitive conversation, such as about a difficult or controversial topic, or when a student makes an inappropriate or disparaging comment in class. The following strategies can help you manage difficult conversations, whether they are planned or unplanned.

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

Establish ground rules for discussion, and involve students in developing and agreeing on them. Possible ground rules include:

- Listen respectfully without interrupting
- Respect one another's views
- Critique ideas, not individuals
- Avoid blame and speculation
- Avoid inflammatory or harmful language

You can integrate UCSC's [Principles of Community](#) into these ground rules as well. If the course calls for a lot of potentially difficult conversations, establish ground rules collaboratively with the class on the first day and refer back to those guidelines when needed.

Build structure into a discussion to guide students in what to focus on, how to formulate their ideas, and how to respond with respect. For example, assign specific questions for students to discuss in small groups, or assign students to investigate and present different approaches to an idea or topic that may be different from their own views. When a 'hot' issue does come up, ask students to write down their thoughts or summarize the discussion, including the multiple perspectives that have arisen, to allow tempers to cool and to promote critical thought.

Encourage students to think critically about the complexities and ambiguities that often characterize controversial issues. 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 and address different perspectives.

Be conscious of and directly address comments that are inappropriate or demeaning. It can be tempting to just move on and pretend an inappropriate comment never happened, but then students may think that this behavior is acceptable and will miss the opportunity to learn from their or their classmate's behavior. In class, 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?" You

can also follow up privately with the student who made the comment and clarify your expectations for future discussions.

Be aware of your own biases and preconceived notions, and encourage students to be aware of theirs as well. Be conscientious about what issues may hit a nerve with you personally and think about how you might deal with them if confronted with such responses 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 has caused the difficulty or discomfort.

Be an active facilitator. Intervene throughout the discussion to re-word questions, address misconceptions, ask clarifying and follow-up questions, and make sure everyone has a voice in the conversation.

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

Using Classroom Technology Effectively

Using technology in the classroom and in assignment design can range in complexity, from using the campus learning management system ([Canvas](#)) to facilitate online discussions, to creating multimedia presentations, to utilizing collaboration tools like Wikis to generate shared knowledge. Best practices for using classroom technology include starting with the objectives of the overall course or even the individual class session: What should the students be able to do or know, and what teaching strategies will best facilitate those learning goals? It is also important to assess your own comfort level with specific tools, as well as your students' comfort. When assessing your students' facility with particular technologies, consider also whether those technologies are accessible for students with disabilities.

For more information on teaching with technology, including examples of technology use in the classroom and methods for assessing suitability, see the University of Michigan CRLT [guide to getting started with technology](#). At UCSC, the [Digital Scholarship Commons](#) provides support and resources for instructors who want to test out new technologies in their classrooms and as part of their assignment design.

Using PowerPoint Effectively

Adapted from John Orlando, "Improve Your PowerPoint Design with One Simple Rule" (Journal of Cell Biology Education 2004; 3(3): 155–161), and "[Making Better PowerPoint Presentations](#)" from Vanderbilt University's Center for Teaching

Does using PowerPoint, or other presentation tools, improve students' ability to learn? The key to this question is in using presentation slides effectively.

During a PowerPoint presentation, the audience receives a message in two competing channels running at different speeds: voice and visual. An audience member must grapple with the following question: Do I listen to the presenter (who is running at one speed), or read the bullet points (which

I read at a different speed)? This question brings attention to students' "cognitive load," which refers to the limitations of our short-term memory to cognitively process a lot of new information at once.

[Research on cognitive load in multimedia use](#) has demonstrated that running a competing text channel with a voice channel can lower one's retention of information by sending two incongruent messages to the audience. The audience member is trying to focus on two different things at once, and ultimately can lose the whole message because their cognitive processing is overloaded.

Tips for Using Presentation Slides:

- The purpose of using visuals should be to amplify your message with complementary imagery. Allow images to provide a visual cue to enhance thinking.
- Use one image per slide. TED Talks are memorable because organizers work with presenters to ensure the use of effective visuals. You will notice no bullet points. You will also notice one image per slide.
- Avoid using clip art or stock photos.
- When creating a presentation, ask yourself, "Will it help me to communicate better, or will it be a distracter for me and/or my audience?"

Additional Resources for Using PowerPoint:

- [You Suck at PowerPoint](#): An informative and humorous Slide Share presentation on the mistakes to avoid when designing a PowerPoint presentation.
- Garr Reynolds' blog, [Presentation Zen](#), features an entry called "What is Good PowerPoint Design?" that explains how to keep your slide design simple, but not simplistic.

When and How to Lecture

Adapted from UCSC's Education Department's TA Handbook from Fall 2012 and the University of Florida's TA Handbook

As a TA, you may be offered the opportunity or, in some circumstances, be asked to deliver a course lecture. Here are some tips to help you prepare a lively, engaging, interesting, and well-prepared talk that will scaffold students' learning and serve as a springboard for more inquiry and discussion.

Prepare. Ask yourself what students need to know (your learning objectives) and what information (e.g., examples, samples, infographics) and activities will help achieve that objective.

Outline. Sequence the talking points logically, providing many examples and pauses for students to absorb, process, and even talk about the information.

- Provide an introduction. Begin with a concise statement, something that will preview the lecture. Attract and focus their attention.
- Present an outline. Write it on the chalkboard, project it on the classroom screen, or distribute handouts. Then be sure that you refer to it as you move from point to point in your lecture.
- Repeat your points in two or three different ways. Your listeners may not have heard it the first time, or understood it, or had time to write it down. Include examples or concrete ideas, which facilitate understanding and remembering. Use short sentences.

- Stress important points, either by the tone of your voice or explicitly (e.g., “Write this down”; “This is important”; “This will be on the test.”)
- Pause. Give your listeners time to think and write.

Link. Whenever possible, connect the material to your students’ lives and experiences. Use current examples.

Engage. Design a student-centered clarifying or responding activity during or directly after the lecture so students can use, apply, and question the information you have presented. Ideas include posing a question for pairs or small groups to discuss, working through a case study, or asking students for examples.

Practice. Go over your talk several times in advance, practicing talking slowly and clearly.

Grading and Providing Feedback

The teaching center at Carnegie Mellon University [summarizes rubrics and their benefits](#) well:

A rubric is a scoring tool that explicitly describes the instructor’s performance expectations for an assignment or piece of work, including papers, projects, oral presentations, and performances. A rubric identifies:

- **Criteria:** the aspects of performance (e.g., argument, evidence, clarity) that will be assessed
- **Descriptors** (task description): the characteristics associated with each criterion that will be assessed (e.g., argument is demonstrable and original, evidence is diverse and compelling)
- **Performance levels:** a rating scale that identifies students’ level of mastery within each criterion

Rubrics can benefit instructors by:

- Promoting an inclusive classroom space in which expectations are explicit and understood by all students
- Ensuring more consistent assessment
- Reducing the time spent grading (and explaining grades and expectations)
- Discouraging complaints about and minimizing conflicts over grades
- Providing an effective and efficient way of giving feedback on student writing

An effective rubric can also benefit students by:

- Delineating and clarifying instructors’ expectations and standards (in advance)
- Identifying the strengths and weaknesses of their performance (enabling them to direct their efforts accordingly)
- Enhancing their opportunities for success in the course

See the [Appendix](#) of this handbook for more information on developing rubrics and a sample developed by staff and students in UCSC’s Institutional Research, Assessment, and Policies Studies (IRAPS). See the [IRAPS web page on rubrics](#) for more information.

Ten Tips for Efficient and Effective Grading

1. Use a scoring rubric.
 2. Meet with other graders, ideally those who are TAing for the same class, to determine grading criteria.
 3. Use “range finder” papers, i.e. use student work from the class to help you determine what excellent work, and what work that needs improvement, looks like.
 4. Read the paper through before you begin marking.
 5. Use pencil for comments. Crossing out your own mistakes or changing your response halfway through can be messy.
 6. Choose the appropriate level of feedback for the assignment, and keep in mind that students often learn better if a particular issue in their writing is isolated for them to work on.
 7. Use short comments in the margins, and elaborate comments at the end. It is important to recognize that you will not be able to address all of the possible ways a student’s writing could be improved. Identify one or two main areas for improvement, and provide an invitation for the student to improve in that dimension of their writing during the course—for example, by making clear that the student can focus on that dimension in their next paper.
 8. Use marking symbols, and make sure students have a key for these symbols.
 9. Keep to an allotted time per paper.
 10. Take breaks. You will be more efficient (and likely more equitable) if you give your mind a rest at regular intervals.
-

Concerns About Student Well-Being

The UCSC Slug Support Program supports students who are experiencing difficulties in order to prevent problems from escalating into a crisis. Specialists can connect students to appropriate resources and services and can offer funding for food, emergency housing, and other essential needs.

Call the [Slug Support Program](#) line (831-459-4446) to report unusual or concerning behavior, consult about distressed students, or make a referral. [The Promoting Student Mental Health manual](#) outlines how to support student mental health.

Contact [Counseling & Psychological Services \(CAPS\)](#) (831-459-2628) to refer a student for services or to consult with professionals about a student’s mental health concerns. There is an after-hours service available (same number) at night and on weekends for crisis assessment, consultation, and intervention.

Signs of Student Distress

Sometimes it is very clear when a student is having difficulty, and sometimes distress is masked with less obvious characteristics. Some signs of distress include:

- Poor academic performance and preparation, particularly if such behavior represents a change in previous functioning
- Change in academic status (e.g., academic notice)
- Excessive absences or tardiness, especially if representing a change in previous functioning
- Chronic indecisiveness or procrastination
- Repeated requests for special considerations
- Increased concern about grades despite satisfactory performance
- Increased dependence (e.g., student hangs around you more frequently or begins to make excessive appointments to see you during office hours)
- Overt (or veiled) references to suicide, verbally or in writing
- Statements of helplessness or hopelessness
- Unusual behavior such as:
 - Listlessness, lack of energy, or falling asleep in class
 - Disruptive or aggressive behavior
 - Marked changes in personal hygiene
 - Impaired speech or disjointed, confused thought
 - Extreme mood changes or excessive, inappropriate display of emotions
 - Hyperactivity, irritability, or heightened anxiety
 - Alcohol or drug abuse
 - Relationship issues, including problems with family or roommates
 - Indications of persistent or prolonged unhappiness

If you are concerned about a student, call Counseling and Psychological Services (CAPS): (831) 459-2628

Disruptive Students

Here are tips for managing disruptions and misbehaviors in the classroom, adapted from Jennifer Gonzalez's [*The Cult of Pedagogy*](#).

Use proximity. Move around the room. Stand near students who are talking or texting to reduce the likelihood that they will continue that behavior.

Deal with disruptions without getting into a power struggle. Ask the student who is engaging in off-content behavior a content-related question.

Avoid sarcasm. Although many teachers believe this projects confidence, it can look more like weakness and, in many cases, can cause students to lose respect.

Avoid publicly embarrassing students. Although it might work in the short term to get students back on track, this will not help build a respectful relationship with your students. Instead, address

the behavior directly. In an even tone, say something simple like, “Please put your phone away,” or “Your conversation is distracting the class. Please save it for later.”

Frequently, it is useful to **talk to the disruptive students outside of class**. In an even tone, describe the behavior you’re noticing, explain why it is a problem, and tell the student you’d like them to stop. In many cases, this is all that’s needed to change behavior.

Develop class guidelines *with* students. Invite students to establish a list of guidelines for conduct in the classroom. If something that you feel is important is missed, bring it up and ask for their opinion; for example, “What should our policy on cell phone use be?” Students are usually more willing to follow guidelines they themselves have created.

Quiet Students

If you encounter students who seldom or never talk, see if you can discover whether they are shy, confused, or simply turned off. Watch for clues that indicate they might want to speak up. Invite them into the conversation to show that you are paying attention to them and care about their ideas (“Sonia, you seem concerned by Martín’s idea. What do you think?”). You may want to make a point of talking to a quiet student before or after class to indicate your interest.

Academic Integrity

The cornerstone of intellectual life at UC Santa Cruz is a commitment to integrity in all forms of teaching, learning, and research. Address academic integrity up front and regularly with your students: make the expectations for the class and assignments clear; refer students to resources on campus that can assist them (tutoring, library resources, etc.) and clarify when you are available to offer assistance on assignments; teach citation and documentation practices explicitly and speak with students about what it means to do work responsibly in your field; and remind students of the university’s academic integrity policies. Evidence shows that explicit and regular discussion of academic integrity, particularly as applied to specific assignments, diminishes incidents of cheating and plagiarism.

If you suspect that a student has cheated or plagiarized, discuss it with the instructor of record. At UCSC there are two types of possible sanctions if a student has been found to have committed academic misconduct. The instructor of record has sole discretion to determine *academic sanctions* (e.g., grade for the work in question, the student’s final grade for the course). College Provosts, Academic Tribunals, and the Vice Provost and Dean of Undergraduate Education (VPDUE) share discretion for determining *disciplinary sanctions* (including warning, suspension, dismissal, and revocation of degree). The process and policy for handling undergraduate misconduct issues are in the [Academic Misconduct Policy for Undergraduates](#).

Both students and faculty bear responsibility for preventing academic misconduct. Students need to avoid academic misconduct themselves and are enjoined to report any cases of academic misconduct that are known to them. Students making such reports may maintain anonymity. Instructors should clearly explain the university’s academic misconduct policy in the context of their courses and specify the academic sanction for misconduct (e.g., no credit for the work in question, failing grade

for the course). Failure to include this information in the course syllabus, however, does not excuse students from knowing and being accountable for adherence to the precepts of academic honesty and the policy of the university.

Developing a Teaching Portfolio

Adapted from the University of Florida's TA Handbook (which used material compiled by Dalhousie University in 1995) and the "[Teaching Portfolios](#)" page at Vanderbilt University's Center for Teaching

A teaching portfolio is a method for documenting your qualifications as an instructor and developing a professional view of your teaching experience, and can provide a variety of sources that give context for your development as a teacher. It is much easier to craft a teaching portfolio if you document your work as an educator from the beginning. Collect Student Experience of Teaching survey data and examples of class assignments and section syllabi you develop. Not only will these documents help you when applying for teaching positions, but they will also give you the opportunity to reflect on and refine your teaching strategies and philosophies.

Here are tips for reflecting on your teaching in order to create a portfolio:

1. Summarize your teaching responsibilities and criteria for evaluating your teaching success. List the sections you have taught, and any other teaching-related engagements.
2. Reflect on your teaching goals, philosophy, and style. Prepare a brief statement (1-2 pages) of your approach to teaching. There are helpful online resources to guide you in developing a Statement of Teaching, including at the Center for Research on Learning and Teaching at University of Michigan ("[Teaching Portfolios and Course Portfolios](#)" and "[The Teaching Philosophy](#)") and at the Center for Teaching at Vanderbilt University ("[Teaching Statements](#)").
3. Compile materials such as copies of assignments, hand-outs, presentation outlines, and student work (with their permission) that demonstrate how your teaching reflects your philosophy. Contextualize these documents to show what they demonstrate (e.g., improvement, collaborative learning, problem-solving, constructive feedback).
4. Add faculty evaluations of your teaching, a summary of student evaluations, written comments from students on class evaluations, and/or unsolicited letters of praise from students.
5. Get feedback on your draft portfolio from colleagues and/or your faculty advisor.

Reflection and Continuous Improvement

Adapted from the UC Davis TA Handbook and McKeachie's Teaching Tips

After any class, reflect and assess how the class went. Note what worked well, what you modified from your original lesson plan, or what you would like to change in the future. Reflecting on your teaching practices will hone your overall teaching ability as you become more aware of how to best manage your classroom, support student learning, and motivate and engage students.

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

- 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?

SECTION 6: FOR MORE INFORMATION

Books on Teaching

The following books are available to you through the University Library.

Some books on the list are available as e-books, which have no limits on the number of simultaneous users, can be downloaded and read offline, and have chapters as PDFs that can be printed or saved. Some books have more restrictions on printing, saving, and simultaneous use. [The UCSC library guide to e-books](#) provides more information.

This list of books includes those currently assigned in some of the pedagogy classes for TAs on campus, those that are known as seminal works on teaching, and/or those recommended by the [Center for Innovations in Teaching and Learning](#).

The books are listed alphabetically by author. A short summary is provided as well as a link to each book's information.

- [*Engaging Ideas: The Professor's Guide to Integrating Writing, Critical Thinking and Active Learning in the Classroom*](#), 2nd ed., by John Bean (2011)
Learn to design interest-provoking writing and critical thinking activities and incorporate them into your courses in a way that encourages inquiry, exploration, discussion, and debate. This is a practical nuts-and-bolts guide for teachers from any discipline. Integrating critical thinking with writing-across-the-curriculum approaches, the book shows how teachers from any discipline can incorporate these activities into their courses.
- [*First Day to Final Grade: A Graduate Student's Guide to Teaching*](#), 3rd ed., by Anne Curzan and Lisa Damour (2011)
The book is designed to help new graduate student teaching assistants navigate the challenges of teaching undergraduates. Both a quick reference tool and a fluid read, the book focuses on the “how-tos,” such as setting up a lesson plan, running a discussion, and grading, as well as issues specific to the teaching assistant's unique role as both student and teacher.
- [*Teaching Across Cultural Strengths: A Guide to Balancing Integrated and Individuated Cultural Frameworks in College Teaching*](#), by Alicia Fedelina Chávez and Susan Diana Longerbeam (2016)
The key premise of the book is that deepening student learning and increasing retention and graduation rates requires teaching from a strengths-based perspective that recognizes the cultural assets that students bring to higher education, and to their own learning. Recognizing that each student learns in culturally influenced ways, and that each instructor's teaching is equally influenced by their background and experiences, the authors offer an approach by which teachers can progressively learn about culture while they transform their teaching through reflection and the application of new practices that enrich student learning.
- [*Tools for Teaching*](#), 2nd ed., by Barbara Gross Davis (2009)
“It's the most useful book I've seen on college teaching, one that can serve teaching assistants and beginning as well as more experienced professors,” states a book review by the Center of Teaching Excellence at the University of Virginia. Included are chapters on lecturing, discussion, writing skills, testing, and instructional media. Each chapter provides practical, easily implemented hints. The

review professes that “Ten minutes spent with this book while motivated by a teaching problem will pay off immediately.”

- [*Pedagogy of the Oppressed*](#), by Paulo Freire (2000, first published 1968)
The book is a combination of philosophical, political, and educational theory. Freire outlines a theory of oppression and the source of liberation—the awakening of critical awareness and the thinking process in the individual. Liberation happens through a new type of education, one that creates a partnership between the teacher and the student, empowering the student to enter into a dialogue and begin the process of humanization through thought and its correlative, action.
- [*Teaching Community: A Pedagogy of Hope*](#), by bell hooks (2003)
Combining critical thinking about education with autobiographical narratives, hooks invites readers to extend the discourse of race, gender, class, and nationality beyond the classroom into everyday situations of learning. bell hooks also writes candidly about her own experiences.
- [*Teaching to Transgress*](#), by bell hooks (1994)
For hooks, the teacher’s most important goal is teaching students to “transgress” against racial, sexual, and class boundaries in order to achieve the gift of freedom. hooks notes that in the book she hopes to convey the pleasure and joy she feels about teaching. She presses for changes in teaching that resist the boredom, disinterest, and apathy that often characterizes the way that teachers and students feel about teaching and learning and the classroom experience.
- [*Small Teaching: Everyday Lessons from the Science of Learning*](#), by James M. Lang (2016)
Lang presents a strategy for improving student learning with a series of modest but powerful changes that make a big difference, many of which can be put into practice in a single class period. These strategies are designed to bridge the chasm between primary research and the classroom environment in a way that can be implemented by any faculty in any discipline, and even integrated into pre-existing teaching techniques. Small teaching techniques include brief classroom or online learning activities, one-time interventions, and small modifications in course design or communication with students.
- [*McKeachie's Teaching Tips: Strategies, Research, and Theory for College and University Teachers*](#), 14th ed., by Wilbert McKeachie (2013)
The book summarizes current best practices succinctly, providing entrée into the literature for further study. The chapter “Getting Started” deals with designing a course and meeting a class for the first time. “Basic Skills for Facilitating Student Learning” addresses lecturing, leading discussions, providing written feedback, testing, grading, and assessment. “Understanding Students” discusses teaching a culturally diverse population, motivating students, and dealing with problem students. “Adding to Your Repertoire of Skills...” considers the use of techniques such as case-based, problem-based, or group-based learning and using writing (and technology) effectively to promote learning. “Skills for Use in Other Teaching Situations” considers labs and large classes.

Supplementary Resources

For a comprehensive list of campus resources, please visit the [Center for Innovations in Teaching and Learning website](#).

Professional Development

[Center for Innovations in Teaching and Learning](#)

[Graduate Horizons](#) at the Division of Graduate Studies

The [Professional Development Program](#) at the Institute for Scientist and Engineer Educators

[PhD+ Series](#) at The Humanities Institute

Support and Resources

[Graduate Division – Support and Resources List for TAs](#)

[The Resource Centers](#)

[Student Success Centers](#)

[Disability Resource Center](#)

[Counseling and Psychological Services \(CAPS\)](#)

[Campus Advocacy Resources and Education](#)

[Slug Support](#)

[Introduction to the Library for Graduate Students](#)

[Pathways to Research, a Guide for Assisting Undergraduate Students in Research](#)

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APPENDIX: SAMPLES AND WORKSHEETS (SEE SEPARATE DOCUMENT)

- A. Sample First Day Lesson Plan
- B. Sample Introductory Questionnaire
- C. Scheduling Your Time Worksheet
- D. Rubrics: Overview and Samples