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GSI/IA Course Information Worksheet

Course Information

Class Lecture Location/Time: _____

Your Lab Location/Time: _____

Your Discussion Location/Time: _____

Your Office Hour Location/Time: _____

Course Contacts

Be sure to check that all names and numbers are correct if you inherit a contacts list from someone else.

Instructor: Office hours:	Office:	Phone:	Email:
GSI1: Office hours:	Office:	Phone:	Email:
GSI2/Other help: Office hours:	Office:	Phone:	Email:
Other help: Office hours:	Office:	Phone:	Email:

Administrative Details

- Drop/Add policy and class size limit
- Class list (via Canvas or other means)
- Grade book (via Canvas or other means)
- Course syllabus
- Copy of the text book, lab book (should be free,) and experiments
- Complete list of experiments, the instructions for each and the lab schedule.
- Attendance and make-up policies.
- Plagiarism policies for the class (also see Honor Code).

Tips and Worksheet for Time Management¹

Strategies for Time Management

- Make weekly and daily schedules
- Keep a teaching log that tracks how you spend your time
- Cooperate and collaborate with your professor, other GSIs and IAs, and graders
- Keep accurate and organized records

Time Management Worksheet

Review the tasks that you will need to complete as an IA/GSI, and indicate how much time they will take each week in the space provided.

	Week 1	Week 2	...	Week <i>n</i>	...	Week 15
Meet with faculty/GSI team						
Attend lecture						
Facilitate section/lab						
Hold office hours						
Prep for section						
Do readings						
Answer student emails						
Grade small assignments						
Hold review sessions						
Grade large assignments/exams						
Grade Final Exam						
Total Hours:						

As an example, **if you are hired to work half-time** (e.g. 50% GSI appointment), you will be expected to work an **average of 20 hours per week** during your appointment. You may divide your time as follows:

- 3 hours attending lecture
- 2 hours at office hours
- 1 hour meeting with your teaching team (your Professor, and other instructors)
- 2 hours running two discussion sections
- 4 hours preparing lesson plans, creating handouts and assignments
- 8 hours reading course material, grading, and responding to student emails.

Most IAs are hired to work 10 hours per week on average (you may work more during busy weeks, e.g. when a major project is due, and less during others).

****NOTE: If you are spending significantly more time working than your appointed time, notify your supervisor or the course director of the situation as soon as possible.**

¹Adapted from gsi.berkeley.edu/gsi-guide-contents/pre-semester-intro/time-mgmt-strategies/ (Downloaded on 12/17/17)

Tips for Running an Experimental or Computational Lab

Before the semester begins

- Obtain the key(s) needed for your lab room(s) and any outer doors

FOR EXPERIMENTAL LABS:

Who is responsible for?

- Ensuring that equipment is operating correctly
- Repairing and/or replacing damaged equipment
- Ordering lab supplies
- Paying for repairs or replacements

Meet the lab technician and find out where he/she can be found, especially before, during, and after lab. Find out the responsibilities of the lab technician/find out any advice they have for you.

Safety

1. Locate and check the lab room where you will be teaching.
2. Locate where all of the necessary equipment is stored.
3. If any safety equipment is missing or in disrepair, make sure there is a replacement.
4. Ask for rubber gloves, a CPR mask and a first aid kit for your lab, if necessary.
5. Attend any department-sponsored safety seminars.
6. Determine hazards contained in your lab (electrical, mechanical and other equipment, materials, radioactivity). Know how to safely handle and dispose of hazardous material.
7. Think about your response to a crisis.
8. Determine department policy for handling injuries.
9. Learn how to operate the fire extinguisher in your lab.
10. Learn departmental policy on goggles, lab coats, food and drinks.
11. Determine the University's regulations and the role that safety offices, such as OSEH might play.

How will you obtain?

- Supplies for general needs (pens, paper, etc.)
- Photocopies and who pays for them
- Copy of the lab book (should be free) and assignments
- Complete list of assignments, the instructions for each, and the lab schedule.

What are the goals of the labs and what is expected of you?

- How much interaction between you and the students does your instructor want?
- Should you ask probing questions while the students are collecting data?
- When should you answer students' questions and when should you encourage them to think through the answers themselves?

Preparation and planning during the semester:

- Ahead of lab, **perform the lab or computer assignment** (give the full lab time for this), thinking about it from your student's perspective. **Anticipate** and plan for what students may have trouble with, or anything that may go wrong.
- Determine and review what **prior knowledge** and skills students need to succeed in the lab. Are there any common misconceptions or issues? Do they need a demonstration of equipment or software features to get them all started on the same page?
- Determine **how the lab connects** to lecture, to the big picture, and/or the real world.

- Determine the **learning objectives** (the main 2-4 things students are going to learn or practice in the lab).
- Write down **potential questions** that you can ask your students to gauge whether they are ready for the lab, or are understanding the lab.
- Think about **time management** (how long to allow for each task).
- Determine any **security concerns** and decide how you will make students aware of them.

FOR COMPUTATIONAL LABS:

Safety: safecomputing.umich.edu/

EECS Tutoring Resources: cse.engin.umich.edu/academics/for-current-students/advising/tutoring-resources/ and ecas.engin.umich.edu/elc/tutoring/

During Labs

- **Help Policy.** Determine your policy for answering debugging questions. One possible policy is to require students to complete/attempt General Debugging Steps 1-3 BEFORE they ask for help. This encourages students to debug before asking for help.
- **Queue Policy.** Determine your policy for the order in which you answer questions. One possible policy is to assign numbers to students who have questions or ask them to write their name in a queue on the white board. This lets students continue to debug/work while you are helping others as opposed to students standing in line.
- **Collaboration.** Determine if students are allowed to collaborate during lab and help each other debug. If collaboration is allowed, encourage students to help each other.

TIP: Encourage students to think about why and when the problem occurs. Have them explain to you on paper what happens to the input and the variables as they walk through the program. Ask them if the program actually does what they say it does. If not, when does it veer off. Help guide students through debugging.

General Debugging Steps (adapted from adv-r.had.co.nz/Exceptions-Debugging.html)

- **Reproduce it.** Make sure you can reproduce the error before you start debugging.
- **Reduce input.** Determine the smallest input that causes the error. The smaller the input, the easier it will be to find the error.
- **Isolate problem code.** Isolate the portion of your code causing the error. You can do this by tracing the data's flow through your program. At the start of each function, do the variables contain the values you expect? Do the functions return what you expect? Isolating the function or lines of code causing the error will help you find the solution.
- **Experiment.** Hypothesize a potential cause for the bug. Then test to see if your hypothesis is correct by changing the input or code to either rule out the hypothesis or confirm it.
- **Experience.** Think if you have had this type of error before and what the solution is. Do an online search or talk to others. Sometimes, explaining the problem will help you discover the problem.
- **Never Give Up.** This does not mean you cannot ask for help.

More resources:

Brown NCC, Wilson G (2018) Ten quick tips for teaching programming. PLoS Comput Biol 14(4): e1006023. <https://doi.org/10.1371/journal.pcbi.1006023>

Lewis C. CS Teaching Tips; 2017. <http://csteachingtips.org/>.

Tips for Office Hours²

Holding office hours is an important responsibility and a teaching role in itself. Actually, some consider working one-on-one with students to be “teaching at its best” because it provides the opportunity for GSIs and IAs to meet the specific needs of individual students in a less formal, more interpersonal setting. The following tips will help make your office hours more effective and helpful to students.

Scheduling Office Hours – Be aware of students’ busy schedules and coordinate with other instructors in the course.

- Vary the time and day of office hours to accommodate different student’s schedules.
- Hold some office hours immediately after the class.
- Solicit input from students (e.g. via a short survey) before finalizing your schedule.
- Offer extra office hours before major assignments are due, and right after graded assignments are handed back.
- Be willing to meet by special arrangement if students are unable to adapt their schedules to the regular times, but set boundaries and limits to your availability, so the time you spend is consistent with your appointment (see P.)
- Use technology to answer student questions (e.g. email, Canvas, piazza). Again, set expectations for appropriate questions, when and how quickly you might respond, etc. Consult with your professor or teaching team on this.

Preparing for Office Hours – Anticipate student needs.

- Complete all assignments in advance thinking of the students’ perspective. What might they have trouble with?
- Think of different ways to explain difficult concepts (use visuals, analogies, equations, graphs, etc.)
- Think of ways to help students make connections (e.g. real-world examples, how the topic fits into the larger picture, why it’s important to learn this).
- Develop a strategy for solving problems that you can teach students (e.g. see P.).
- Come up with questions you can ask to: a) promote metacognition, b) check for understanding, and c) help students progress to the next step (P.).
- Know course policies (e.g. for grading, late assignments, group work, email communication, etc.). If these are not in the course syllabus, discuss with your professor or teaching team.
- Announce your office hours to students explaining their purpose (some students may not know), and give frequent reminders. Describe what typically happens at office hours to alleviate fears of the unexpected for some students.

During Office Hours – Demonstrate a genuine willingness to assist students by showing empathy, patience, and interest in their learning (see *Authority in the Classroom*, P.5). Use a framework to organize your time. For example,

- **Establish rapport** – learn and use their names.
- **Diagnose the need (concern, information, problem)** – ask questions and listen carefully to the student. Find out what students are lacking in terms of information and/or skills.
- **Set objectives for the session** – ideally with the help of the student (see *Learning Objectives*, P.)
- **Assist the student in addressing the need** – This requires more than explaining, giving examples, or telling students what to do. Teach metacognition (see pages and). Help students develop study skills and problem-solving strategies. Use guiding questions to move them forward. For example,
 - "What is the problem asking you to do?"
 - "What information do you have and what information do you need to solve the problem?"
 - "Where can you find the needed information?"
 - "How would you proceed then in using the information to solve the problem?"
 - "How could you check to see if you have solved the problem correctly?"
- **Assess whether the student understood** – Ask the student to talk through the concept discussed, paraphrase, give a different example, or work through a similar kind of problem.

Most students would benefit from attending office hours. To manage attendance, consider the following ideas.

- If attendance is low, require students to attend one office hour before the first major assignment.
- In larger classes, allow students with similar questions to work in small groups. Emphasize that the purpose is to learn from each other (i.e. copying deprives them of a learning opportunity and it will show in the exam or major assignment).

² Adapted from Chapter 5 - Preparing Graduate Teaching Assistants for Their Specific Instructional Roles, in the book, *Working Effectively with Graduate Assistants*, by Jody D. Nyquist and Donald H. Wulff. Published by Sage Publisher, Inc. Copyright © 1996 by Sage Publications, Inc. All rights reserved. Reprinted with permission by Rick Reis, <https://tomprof.stanford.edu/posting/1348>

Tips for Running a Discussion Session

Before the start of the semester:

You will want to talk to your professor or other GSIs so that you'll share consistent standards and ensure that you have the resources to teach effectively³:

- **Add/drop:** What is the procedure for adding/dropping students?
- **Meetings:** How often does the professor want to get together with all the GSIs/IAs?
- **Grading:** What is the process like? What is your grading rubric? How will you communicate grading standards? Late work policy? Regrades? Extra credit?
- **Goals:** What are the goals for discussion sections? Labs? Are you supplementing, facilitating, reviewing, teaching, moderating, or all of the above?
- **Feedback:** How would the professor like GSIs/IAs to communicate students' feedback on the lectures? Does the professor want to observe the GSIs/IAs?
- **Classroom:** Does it have enough seats, and can you arrange them to suit the teaching method you'll be using more often? If not, what can you do to improvise?
- **Resources:** What other GSIs/IAs or professors have taught this course before and can give you information about student expectations, their level of knowledge and potential pitfalls of the course? Which administrative assistant in the department can help you?
- **Roster:** Check out your roster online to get a sense of how full the class is, how many students are on the waitlist, etc.
- **Practice:** A great deal of anxiety can be relieved by trying out your lesson in advance. Ask a friend to listen or simply talk in an empty room to work out the quirks.

Your first day(s) of discussion:

- **Make a strong first impression.** Arrive early, post important information on the board (class name, agenda, etc.), begin on time, show students you care.
- **Establish and explain an email policy.** How will e-mail be used? When will you respond as the GSI? 24 hours to respond?
- **Establish policies that set clear expectations.** Tell students what will be expected in terms of attendance, grading, participation, assignments, late work; announce office hours and allow time for student questions.
- **Establish your credibility.** Share your qualifications with your students by discussing your research interests and teaching experience (in and out of the classroom). Identify the value and importance.
- **Explain why your course is important in general and to you.** What will students gain from the course?
- **Establish participation guidelines.** As a class, set guidelines for classroom interaction and discussion. Set the tone for active student participation. Start on the first day. Use icebreakers to get to know your students and for them to get to know each other. Let them know you expect and want verbal participation. Remember you may need to use 3-4 different kinds of encouragement to get them talking.

³ Adapted from "Getting Started: Teaching Undergraduates" Matt Kasper and Paul Ching, 2003.

Tips for Grading (Homework, Lab Reports, Exams, etc.)

1. Have a set of **guidelines** for turning in assignments, regrades, and grades in general. Usually the professor will provide these guidelines. They should be included in the syllabus. Remind students of these guidelines often. Sample guidelines include:
 - a. All regrades must be turned into the GSI/IA within one week.
 - b. All regrades must have a written explanation of grading error.
 - c. Late homework not accepted (or accepted with a 20% penalty up to one week after the deadline).
2. Use a **rubric** (see P. for examples):
 - a. For smaller assignments or individual problems, you can create simpler rubrics as follows:
 - i. Define in writing the point values associated with each part of a problem or project.
 - ii. Before grading, **briefly skim through a portion of problems or essays**. This gives an idea of average student performance, common mistakes and misconceptions, and how to handle partial credit.
 - iii. Revise the rubric if needed before you start grading.
 - b. For large assignments, rubrics also describe the skills and knowledge that students need to demonstrate to receive a certain score and should be given to the student along with the instructions for an assignment. This helps students understand more clearly the expectations for the assignment before they do it.
 - c. You can also create general rubrics (e.g. for grading problems, lab reports, teamwork) that specify general strategies or components that you want to train students to utilize (e.g. when solving any problem, writing any lab report, or working in teams). EXAMPLE 2 on P. shows a general rubric for solving problems in physics. These rubrics can then be applied to any specific assignment, making the feedback simpler and more efficient.
3. Be **consistent and fair**. When possible, grade **without looking at names** of students.
4. Grade one problem on each paper until all papers have been completed. It can help to practice grading with your rubric on the first several papers before grading all papers. What you do for one student, you must do for all students, so be careful when dealing with extra points or late homework submission, etc.
5. Provide **effective written feedback** to students. This will save you time as it will reduce the number of students asking: *“Why did I lose points on this problem?”* It will provide a tool for the students to learn from their mistakes. Do not devote unlimited time to this. A detailed rubric can accomplish some of this work. Talk to previous IAs/GSIs/graders of the course for a time estimate for grading. Effective feedback is:
 - a. **detailed/specific**: “good job” and “not quite right” do not tell the student where to focus future effort, or what to change vs. what to keep doing
 - b. **timely** - the closer to the completion of the assignment, the better
 - c. **balanced** - highlighting just mistakes can discourage further effort, whereas a balance of things done well and suggestions for improvement promotes student growth
6. **Try not to take students’ response to poor grades personally**. Grading issues can cause students a significant amount of anxiety. They may express anger or despair over their grade. If you have a method for grading and re-grading, stick to it and try to remain impartial. When in doubt or if you feel uncomfortable with an interaction pertaining to grading, **involve the professor** on all judgment calls, or issues where you are uncertain of the University’s accepted protocol. It is best to keep the professor aware of any and all grade issues that arise between you and a student.
7. Beware of norm-reference grading (**curving grades**) as this may have the following **negative consequences**:
 - a. dampen motivation and cooperation in a classroom (since students compete for the higher relative grade)
 - b. contribute to “impostor syndrome” (if students know they did poorly on an exam that was too difficult, but “pass” because of the curve) and cause students to question whether they should persist in their major.
 - c. make it difficult for students to gauge their performance during the semester and develop strategies for remediation (because final grades are dependent upon how all others perform in total and not just on that individual student’s skills and abilities).

Rubrics

A rubric is a scoring key that indicates the criteria for scoring and the amount of points to be assigned for each criterion. A simple rubric can be created to help grade problems like the one shown in EXAMPLE 1 below.

EXAMPLE 1: WIND ENERGY PROBLEM (8 points)

Given the following information, is it possible for one wind turbine (diameter=15m) to produce 60kW of electric power? Explain.

$$\text{Wind energy per unit mass of air} = 36.1 \frac{\text{J}}{\text{kg}}$$

$$\text{Mass flow rate through a wind turbine} = 1802.5 \frac{\text{kg}}{\text{s}}$$

SOLUTION WITH RUBRIC:

$$P_{\text{wind}} = E * \dot{m}$$

$$P_{\text{wind}} = \left(1802.5 \frac{\text{kg}}{\text{s}}\right) \left(36.1 \frac{\text{J}}{\text{kg}}\right)$$

$$P_{\text{wind}} = 65.1 \text{ kW}$$

$$\eta = \frac{\text{Total power to be generated}}{P_{\text{wind}}}$$

$$\eta = \frac{60 \text{ kW}}{65.1 \text{ kW}} = 92.2\%$$

1 point for correct equation

1 point for correct substitution

1 point for the correct P_{wind} value

1 point for the correct units

1 point for correct efficiency equation

1 point for correct efficiency value

The Betz limit (theoretical limit) for wind turbine efficiency is 59.3%. Hence, a single wind turbine will not be sufficient to produce 60 kW of power.

Moreover, practical utility scale wind turbines achieve at most 75% of the Betz limit increasing the number of turbines needed even more.

2 points for correct reasoning

Even the minimal rubric in EXAMPLE 1 helps:

- communicate expectations for an assignment and illustrate assessment priorities
- grade with transparency, more consistency, and increased objectivity

More detailed rubrics that explicitly describe performance expectations (e.g. EXAMPLE 2 below) can also help to:

- clarify the standards for a quality performance,
- provide focused feedback on works in progress, and
- align the assignment and assessment with the learning objectives.

EXAMPLE 2: GENERAL PHYSICS PROBLEM-SOLVING RUBRIC⁴

	5 points	4 points	3 points	2 points	1 point
Strategic Approach (S)	Approach chosen is clearly shown, clearly written & all elements are valid.	Valid approach with minor errors that don't disrupt understanding.	Valid approach with multiple errors that impede understanding.	Invalid approach that demonstrates little understanding of the problem.	Little or no understanding of how to approach the problem.
Physics Concepts (P)	Appropriate concepts fully understood, clearly stated & employed correctly.	Appropriate concepts that are mostly understood, but employed with errors.	Appropriate concepts identified, but not employed or understood.	At least one concept identified but unable to demonstrate understanding.	Little or no understanding of physics concepts.
Mathematical Concepts (M)	Correct starting equations. All mathematical steps are clearly shown and they flow easily toward the correct answer.	Correct starting equations. And either: all math steps clearly shown but minor errors yield wrong answer. OR: correct answer but the math steps are unclear.	Correct starting equations. The mathematical steps are hard to follow and errors begin to impede application.	Can identify at least one equation, but unable to apply them.	Incorrect equations; demonstrates little or no understanding of mathematical concepts involved.
Answer (A)	100% correct answer (analytically, numerically & conceptually)	Correct answer analytically, but not numerically	Incorrect answer, but on the right path.	Unable to reach a correct answer on this path.	No answer.

Finally, if provided ahead of time, a good rubric can help the learner prioritize tasks, develop understanding and skill and make dependable judgments about the quality of their own work. You can create rubrics in Canvas, or using other online tools.⁵

⁴Downloaded on 7/17/18 from: <http://appeal.physics.tamu.edu/images/Physics%20Homework%20Rubric.pdf>

⁵community.canvaslms.com/docs/DOC-12861-4152724129, rubistar.4teachers.org or rubric-maker.com/

Tips for New GSIs Who Have Been Educated Internationally⁶

Communication: *You may be concerned that your students will have trouble understanding you, or that you will have trouble understanding them, perhaps because...*

- English is not your native language
- you're fluent but your variety of English is different than that of most of your students
- undergrads may speak too quickly and sound like they're mumbling and be hard to understand
- people may not use English in the way that you've learned.

Suggestions

- Provide information in multiple modes, e.g. use visuals to complement your talking, with key words labeled, and a handout that facilitates note-taking.
- Speak to your students about how to ensure that two-way communication is successful. Here are some suggested phrases:
 - "If you think I've made a mistake or something isn't clear, please just ask me. If I hear that you've made a mistake or if something you've said isn't clear to me, what method of feedback would you find helpful?"
 - "Understanding what you say is important to me. If I don't understand you, I'll keep asking for clarification until I get it. Others can help me out, too. If you don't understand me, please ask *me* for clarification, too."
- Ask for clarification by repeating a key word in a student question with rising tone, or by paraphrasing what you think you understood. Each of these strategies should trigger the student to use new wording, which is generally more helpful than the same wording repeated again.
- Cultivate a sense of humor about misunderstandings, recognizing that they are great opportunities for learning and establishing a shared classroom community. Think of misunderstandings as opportunities, not failures.
- Do what you can to become more confident. If you do not feel fully confident to say what you want when you want and to understand what is said to you, you may find these resources helpful: Meeting with your advisors and experienced GSIs; [Rackham workshops](#); [International Center workshops](#).

Rapport: *You may be concerned about the best ways to interact with students to establish a good teaching relationship or "rapport"*

- How friendly and informal or strict and distant do students expect you to be?
- How can you get to know students?
- How can you create a positive environment for learning?

Suggestions

- Make a concerted effort to maintain eye contact with all students as much as possible while teaching.
- Either smile or use other body language, such as approaching students when speaking and listening, that conveys respect and friendliness toward students.
- Learn all names early in the semester and use them in class. Learning names makes a big difference to students. But remembering lots of new names, particularly those from a different language, can be tricky. Here are some suggestions to help attach names to people:
 - Place a small sign with students' names on their desks or tables at the start of the semester;
 - Use the Wolverine Access Picture Roster to take attendance or grade student participation;
 - Gather information from individuals about their relevant background and goals in your course (through an in-class survey or partner interview, for example).
 - Learn proper pronunciation; it can be useful to go over your roster with a more experienced GSI before the first or second class. It is equally important for students to learn to say and remember your name, so spending some time on this on the first day is valuable.

⁶ Adapted from *Practical Tips for New Graduate Student Instructors Who Have Been Educated Internationally*, by Elizabeth Axelson and Pamela Bogart, English Language Institute, University of Michigan

- Use icebreakers early in the semester to foster a positive learning community where students feel socially secure (see P. for examples).
- Send an online survey to students in week 2 of the term, asking “What aspects of this section are most helpful to you, and why?” and “What specific suggestions do you have for improving this section?” Share main points with students, so they will see that (a) you care about their learning and (b) what you do and don’t have the power to adjust. Free online questionnaire tools available at UM include Qualtrics and Google Forms.
- Set up a reason for every student to come to your office hours within the first three weeks of the term. For example, you might have them come to fill out a learning goals guided questionnaire, to discuss their first quiz, exam, or paper, or to talk about ideas for an end-of-term project. Use these meetings as a chance to get to know students and show that you care about them as individuals: ask where students are from, what they are studying, what other activities they are involved in, and similar questions.

Engagement: You may be concerned that students may be much more concerned about grades than about learning.

- students may seem indifferent to the material a GSI is helping them learn, by, for example, sleeping in class, playing with mobile devices, or even chatting while you’re teaching.

Suggestions

- Identify and question your own assumptions about productive and unproductive behavior in the context of teaching and learning. This introspection can create a set of questions to talk over with students, providing fruitful jumping-off points for both personal and class reflection.
- Avoid disruptions by making behavioral expectations clear and by keeping students busy while making the purpose of activities clear. For example, you may want to develop a policy on the use of electronic devices in class.
- Establish and follow ground rules for class participation that encourages listening carefully, being polite and inclusive, and being honest if anyone is offended.
- Check with a diverse set of people inside and outside the classroom for possible interpretations of behavior that surprises or troubles you or your students. Find out who you can go to for guidance in your teaching department (e.g. a course coordinator, a head GSI, a Graduate Student Mentor) and on campus (e.g., CRLT, for navigating teaching issues, or ELI, for navigating language issues as a GSI).
- Speak privately with students about their disruptive behaviors. When doing so, display respect and goodwill by asking their perspective on the behavior you want to talk about. Perhaps the student has an unexpected problem that would explain the behavior, and you could talk together to find a less distracting solution. Begin by stating your understanding of what is happening, and get confirmation or clarification, as in “So what you’re saying is ...?” or “Do you mean that ...?” or “It sounds to me like you are angry. Can you explain to me what is making you feel that way?”

Varied Backgrounds and Diversity: You may be concerned that your students will have very different levels of preparation from each other within the same class because ...

- they have had very different types and quality of preparation in high school
- your course may include majors and non-majors
- students have a wide variety of motivations for enrolling in a given class

Suggestions

- Create easy accessibility after class and in office hours (see P.). You may wish to remind students after the first few class sessions when your office hours are, for example. When in your office hours, make sure the door is open and be prepared with a friendly welcome. Save some time, if possible, in the ten minutes after each class session for incidental questions from students.
- Conduct an early survey about course goals and prior relevant learning, using questions such as “What are your reasons for taking this class?” You may also wish to ask more specific questions about background knowledge.
- Use classroom assessment techniques (P.) frequently in order to quickly identify how well students understand the material. These techniques allow you to quickly assess the proportion of the room that understands or can apply course material.

Guidelines for Using Groups Effectively

Research shows that students working in small groups tend to learn more of what is taught, retain it longer than when the same content is presented in other instructional formats, and appear more satisfied with their classes (Davis 1993, Barkley, 2005). But not all group activities promote learning. Below are strategies for creating and managing group work effectively, in ways that produce collaborative learning.

Design activities that are appropriate for groups.

Choose tasks that foster positive interdependence; those that encourage discussion and maximize student interactions. Avoid activities that can be subdivided and parceled out to individuals. Aim to create an activity that is engaging, complex, realistic, relevant, and builds on prior knowledge.

Align activities with learning objectives (see P.)

Ask yourself, "What does this activity ask learners to do?" Then, decide whether completing the activity will result in the achievement of the learning goals. For example, if your goal is to foster critical thinking skills, select an activity that cognitively requires application of concepts to unfamiliar situations, analysis, problem-solving, synthesis, evaluation, or questioning the premise of the problem itself, rather than an activity that only requires recall or comprehension of facts.

Provide clear instructions and milestones.

Written instructions should describe (1) the task; (2) the expected product (what they turn in); and (3) the method of "debriefing" or "reporting out". Communicate milestones so groups can monitor and reflect on their progress and performance. Always set a time limit for the activity and periodically inform students about how much time remains.

Promote group cohesiveness.

Require input from all group members and/or group agreement. Encourage team-building activities such as icebreakers, choosing a group name, and/or periodic group- or peer-evaluations. Provide students with immediate and specific feedback on their group products and process. Consider setting aside class time for group work, team building, and feedback to alleviate scheduling conflicts outside of class.

Ensure both individual and group accountability.

Have students do individual work before entering their group, so that everyone has something to contribute. This could be used as each student's pre-requisite "ticket" into the group activity. If you decide to grade group work, a grading system should include (1) individual performance/products; (2) group performance/products; and (3) each member's contribution to team success (e.g., peer evaluations). Be sure to plan in advance how you will evaluate these, and communicate your expectations and grading criteria to students. One way to ensure accountability without grading is to call randomly on selected students to present their group's progress. It is best to establish and explain the procedure at the beginning of class to set the tone and expectations for group work.

Debrief in ways that promotes active learning.

Keep the groups' output for class discussion simple and focused on essential data. Minimize the lecture mode of group sharing (i.e., a series of group presentations). It is better for groups to share their results simultaneously in a highly visible way (e.g. using whiteboards or posters). Then, provide time for students to digest, process, compare and contrast, and evaluate the output of other groups prior to a whole class discussion.

Before the group activity/assignment:

- Set guidelines for interactions during group work and associated class discussions. Solicit student feedback for these from students.
- Provide written and verbal instructions, including time limits and deadlines. Check for understanding of instructions and clarify confusion before starting the activity. Clearly set expectations for individual and group preparation, attendance, products / deliverables, and performance (including grading criteria, if applicable).
- Explain the motivation and learning goals for the activity. Connect to course content or real-world applications or relevance.
- Establish accountability for both individual and groups.
- Provide students with the necessary resources to succeed. Teach any new content or skills that are required to complete the activity.

During the group assignment/activity:

- Actively engage and monitor groups. Visit all groups regularly. Facilitate, assist, and redirect groups as needed.
- Frequently provide feedback to groups and individuals. Check for understanding and clarify instructions or confusion.

After the group assignment/activity:

- Debrief the activity with the entire class. Revisit the learning goals. Summarize and synthesize the main points. Connect the learning to previous knowledge, real-world applications or motivational contexts.
- Assess student learning informally or formally. Use non-graded classroom assessment techniques (P.) or graded products.
- Provide feedback to individuals and groups regarding both group process and products.
- Provide students with opportunities to reflect on their learning as well as teamwork

U-M and Federal Policies Impacting Classroom Teaching

As a GSI or IA, you are responsible for complying with the legal and regulatory requirements that bind the University. You should also be vigilant about potential issues that arise in classes and report them to your supervisor before they cause bigger problems. This section briefly summarizes some important policies you need to understand.

1. Academic Integrity

The College of Engineering abides by an [Honor Code](#) - a collection of standards for personal integrity that reflect the ethical conduct expected of engineers. Some important points about the Code include:

- The honor code is not a set of specific rules, but it is meant to support whichever policies are instituted in each class.
- One central tenet of the code is academic integrity - students may only submit (as their own) work that is the result of their own thoughts and efforts.
- Students, faculty members, and administrators of the CoE trust each other to uphold the Honor Code, and are jointly responsible for precautions against violations of its policies.
- To report a suspected Honor Code violation, please tell your supervisor and contact the [Honor Council](#) at (734) 615-8438.

2. Student records – protecting students’ information

All information about a student – such as their personal information, enrollment details, assignments and grades – form part of their “student record”, which is protected by a Federal law, the Family Educational Rights and Privacy Act of 1974 (commonly called “FERPA”). Student records must be handled in accordance with that law by all those who have access to them. For example, the requirements mean that:

- you may not post grades using the student’s name or ID number;
- when returning student tests and papers, a system must be used to prevent access and/or release to anyone other than the student;
- you should password protect spreadsheets that contain student information;
- you can only use student information for purposes directly related to your role as an instructor: do not share information that you learn in your capacity as an instructor with others in your capacity as a student.

3. Religious Holidays

Although UM does not observe religious holidays, its policy states that *“every reasonable effort should be made to help students avoid negative academic consequences when their religious obligations conflict with academic requirements.”* Students who are absent on days of examinations or class assignments for religious reasons shall be offered an opportunity to make up the work, without penalty. Students need to provide faculty with reasonable notice of the dates of religious holidays on which they will be absent (definitely by the drop/add deadline of the given term). See [Religious Academic Conflicts Policy](#) for more information.

4. Instructor-Student Relationships

Keep your interactions with and treatment of students professional at all times. According to UM policy an instructor *“is prohibited from having a Covered Relationship with any Learner in a class, lab, field, or other setting in which the Teacher has Academic or Supervisory Authority over the Learner.”* If you have or have had a *Covered Relationship* with one of your students, disclose it immediately to your supervisor so they can inform the Dean’s office and rectify the situation (e.g. assign the student to a different class). See spg.umich.edu/policy/601.22 for more guidance.

5. Safety – for yourself and your students

The University has strict obligations to keep its students and employees safe. Some practical things you can do to improve everyone’s safety are:

- Familiarize yourself with the safety and emergency protocols of each of the classrooms and labs you are teaching in – what would you do if an alarm went off in class? Where would you evacuate to? Where is the nearest fire extinguisher?

- Enter the Department of Public Safety (dpss.umich.edu) non-emergency number, 734-763-1131, into your phone so you know you can call them anytime you need to.
- If your class has laboratory components, make sure you know who your lab's Safety Coordinator is. Get to know and follow all relevant safety procedures, and ensure students do the same. If you see something unsafe happening and can't find your Safety Coordinator, contact Environmental Health and Safety (ehs.umich.edu).
- If you are injured while working, or witness an incident where someone else is injured, you must report it according to your Department's normal procedures, or to Work Connections (workconnections.umich.edu).

6. Copyright – making sure class materials are legally used and distributed

When creating and reproducing class materials, there are copyright compliance issues to consider. Make sure you understand the legal limits of how you can and cannot use or hand out materials in your classes (or post them on Canvas) by reviewing the U-M Library Copyright Office site (lib.umich.edu/copyright) on using copyrighted materials.

7. Appropriate treatment of students

As an instructor, you must apply the same standards and offer the same opportunities to all students in your class. This includes students in special programs, like athletics. For example, you can give a student-athlete an extension or agree to some alternative assessment, if the same opportunity would be given to any other student in analogous circumstances; but you are not permitted to give them special treatment just because they are an athlete, nor are you permitted to deny them opportunities for academic flexibility that you would normally give other students.

For students with disabilities, you must provide reasonable accommodations to afford them equal opportunity to succeed in the class. The Faculty Handbook, developed by Services for Students with Disabilities (ssd.umich.edu) gives an overview of disabilities that affect learning in a college or university setting and guidance on the adjustments that can be made to accommodate students with disabilities. For more details about supporting students with disabilities, see accessibility.umich.edu/resources/instructors.

Supporting Students Facing Mental Health Challenges⁷

Counseling and Psychological Services (CAPS): caps.umich.edu, 734-764-8312, [Tappan Auxiliary Building](#) 609
Michigan Engineering CAPS: caps.engin.umich.edu, 734-764-8312, 145C & 145B Chrysler Center

Mental health challenges are a common concern for many students. While most instructors cannot (because of lack of expertise) and none should (legally) position themselves as a diagnostician, the repeated interactions instructors have with students over time do provide them a unique vantage point from which to observe potentially troubling changes in student behavior. The university encourages instructors to attend carefully to these shifts and intervene if necessary.

What to do *all the time*

- Explicitly promote self-care and wellness throughout the semester.
- Normalize academic effort and struggle.
- Promote a growth mindset (abilities can be developed through dedication and hard work).
- Be attentive to changes in student behavior.

What to watch for: *Warning signs for when to refer a student for further assistance*

- Change in personality (goes from being actively involved to quiet and withdrawn, or goes from being quiet to more agitated or demanding).
- Aggressive or abusive behavior to self or others; excessive risk-taking.
- Signs of memory loss.
- Loose or incoherent thought patterns, has difficulty focusing thoughts, or displays nonsensical conversation patterns.
- Behaviors or emotions that are inappropriate to the situation.
- Extreme suspiciousness or irrational fears of persecution.
- Hyperactivity (unable to sit still, difficulty maintaining focus, gives the impression of going "too fast," appears agitated).
- Depression (no visible emotions or feelings, appears lethargic, weight loss, looks exhausted and complains of sleeping poorly, displays feelings of worthlessness or self-hatred, or is apathetic about previous interests).
- Injury to self, cuts, bruises, or sprains.
- Deteriorating academic performance (incapacitating test anxiety, sporadic class attendance, or extended absences from class).
- Statements regarding suicide, homicide, feelings of hopelessness, or helplessness.

What to do *if you suspect a student faces mental health challenges*

- Notify your supervisor. Then they or you may do the following:
 - Invite student into a one-on-one conversation about your observations (without presupposing or intimating that a mental health concern is the cause of the identified behavior).
 - Activate a network of support by contacting the student's advisor or the Dean of Students (DOS) Office. Do not offer an assessment of the student's well-being (for example, "She seems depressed,") but rather describe the observed behaviors that led them to be concerned.

How to talk: *Guidelines for talking with a student who approaches you with mental health challenges*

- Explicitly express concern for the student's wellbeing. Thank the student for sharing, acknowledge the challenge the student is experiencing, normalize it, and share resources.
- Disentangle academic concerns from health concerns, to reinforce the idea that a student's wellbeing is valued regardless of their performance in the classroom.

⁷Adapted from caps.umich.edu/article/helping-student-distress and crlt.umich.edu/sites/default/files/resource_files/CRLT_no38.pdf

- Observe role-appropriate boundaries.
- Refrain from suggesting that an instructor's personal experiences offer a direct corollary to any particular student's experience.
- Invite the student to share their preferences for how to check back in with them about their well-being.
- Reiterate that struggle as an expected part of academic endeavors
- Explain, if appropriate, that there may be consequences for not meeting academic expectations. Mental health issues should be treated the same as other medical issues that affect a student's ability to meet academic expectations. Propose alternatives and discuss pros and cons of various courses of action. Clarify your course policies and how they apply to the student's particular situation.
- Accept and respect what is said. Respect the student's value system, even if you don't agree.
- Try to focus on an aspect of the problem that is manageable.
- Avoid easy answers such as, "Everything will be all right."
- Encourage the person to seek help. Help identify resources needed to improve things. Attempt to address the person's needs and seek appropriate resources.
- Help the person recall constructive methods used in the past to cope; get the person to agree to do something constructive to change things.
- Let others know your concerns.
- Do not swear secrecy or offer confidentiality to the person.

What to do if you are worried about a student's safety

- When called for, let the person know you are worried about their safety and describe the behavior or situation that is worrisome to you.
- Check in with the student about suicide. This can be uncomfortable, but it is a recommended practice. Be gentle but straightforward, maintain eye contact, and ask, "are you considering suicide?" If a student answers in the affirmative, offer to walk or escort them to CAPS to see the Counselor on Duty (caps.umich.edu/article/crisis-services-0). Or call the Psychiatric Emergency Service at Michigan Medicine for emergency/urgent walk-in evaluation and crisis phone services that are available 24 hours a day, 7 days a week, for people of all ages (Phone 1: 734-936-5900; Phone 2: 734-996-4747; Webpage: medicine.umich.edu/dept/psychiatry/patient-care/psychiatric-emergency-service).
- Offer yourself as a caring person until professional assistance has been obtained.
- After the student leaves your company, make some notes documenting your interactions.
- Notify your supervisor and consult with others on your experience.
- Contact the Dean of Students Office (<http://tiny.cc/critical-incidents>). This will ensure that DOS staff can begin the process of collecting necessary information and informing relevant campus partners about the student's situation. When the instructor is notified/receives updates from the DOS Office that the student is out of harm's way, they may follow up with the student to discuss plans for completion of assignments, etc., for their course.

What to do if you feel there is an immediate threat to yourself or others

- call 911
- or call the Department of Public Safety and Security (DPSS) at 734-763-1131 or text 377911

Sexual Harassment and Misconduct Resources⁸

Confidential resources to help you understand your rights and options.

- **Sexual Assault Prevention and Awareness Center (SAPAC):** For U-M students, faculty and staff who are survivors of sexual assault, relationship violence, stalking and sexual harassment. 24-hour crisis line: 734-936-3333. sapac.umich.edu
- **Faculty and Staff Counseling and Consultation Office (FASCCO):** For staff, faculty and their immediate family members; provides short-term counseling, personalized coaching and educational presentations. 734-936-8660. fascco.umich.edu
- **Faculty and Staff Counseling and Consultation Office (FASCCO):** For staff, faculty and their immediate family members; provides short-term counseling, personalized coaching and educational presentations. 734-936-8660. fascco.umich.edu
- **Additional resources for survivors of sexual assault or sexual abuse:** myumi.ch/Lo8Y9

How to Get Help and Make a Report (*These resources are not confidential*)

Ann Arbor Campus

- Office for Institutional Equity, 734-763-0235
- File a report: Discrimination, Discriminatory Harassment and Sexual Misconduct Reporting Form
 - myumi.ch/Jyok7
- Division of Public Safety and Security: Special Victims Unit
 - Call 911 for emergencies
 - To report an incident or contact the department, call 734-763-1131, dpss.umich.edu

Dearborn Campus

- Office for Institutional Equity, 313-436-9194, umdearborn.edu/faculty-staff/human-resources/institutional-equity
- UM-Dearborn Police and Public Safety Department
 - Call 911 for emergencies
 - To report an incident or contact the department, call 313-593-5333 umdearborn.edu/offices/police-public-safety

⁸Adapted from <https://sexualmisconduct.umich.edu/faculty-staff-resources/>
CRLT-Engin

General Resources

CRLT-engin website: crlte.engin.umich.edu

- To contact an Engineering Teaching Consultant (go to Request a Service -> GSI & IA Request)
- For orientation materials, e.g. an electronic version of this document (Programs and Workshops)
- For videos of professors and GSIs teaching, links to inclusive teaching resources, etc. (Resources)

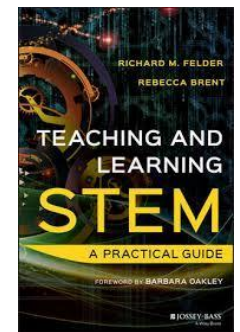
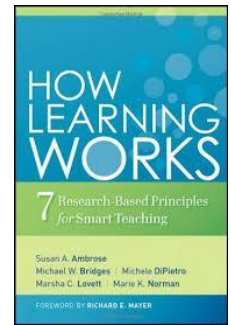
CRLT teaching resources: crlt.umich.edu/resources

CRLT more detailed publications (Occasional Papers): crlt.umich.edu/resources/occasional

University policies:

- Grading and Academic Integrity: [Honor Code Pamphlet](#)
- CoE Honor Council (with link to Honor Code): elc.engin.umich.edu/honor-council
- Religious Holidays: provost.umich.edu/calendar/religious_holiday_guidance.html
- Services for Students with Disabilities: ssd.umich.edu/files/ssd/SSD_Faculty_Handbook.pdf
- Faculty-Student Romantic Relationships spg.umich.edu/policy/601.22
- University of Michigan Faculty Handbook - provost.umich.edu/faculty/handbook/
- Sexual Assault Prevention and Misconduct Resources - sapac.umich.edu

How to access your class roster: csprod.dsc.umich.edu/html/doc/eng/dftie/Isaa/htm/sr_fb_classroster.htm



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