Practical Guide to Teaching for Graduate Teaching Assistants

Including Grading Assistants, Laboratory Assistants, Recitation Leaders, Tutors, and Instructors

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The TA Manual and the International TA Manual are also available online at
http://students.case.edu/education/tatraining/
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Welcome to UNIV 400! We hope you enjoy this educational experience. We greatly look forward to your participation, and encourage you to ask questions at orientation or at any of the seminars. Our primary goal is to provide you with the resources you need to be an effective teaching assistant at Case Western Reserve University.

Prior to the beginning of the semester, please make certain you have registered for either UNIV 400A or UNIV 400B through online registration, just as you would for your graduate courses. We will, however, attempt to assist you in registering for the course during the August or January orientation session.

In addition to attending orientation, you will need to attend three seminars: Communication, Ethics, and Observation, as well as one elective seminar from a list of seminars on the TA website: [http://students.case.edu/education/tatraining/seminars/elective.html](http://students.case.edu/education/tatraining/seminars/elective.html) (Detailed information for each seminar is in the following section and later in this TA Manual.)

**It is possible to complete the orientation and four seminar requirements in one semester, but you have two semesters to fulfill the requirements for UNIV 400A or UNIV 400B.**

At the beginning of each semester, you are responsible for making certain your schedule permits you to attend the seminars needed to complete the course. If you discover a schedule conflict, you must make an appointment to see Professor Olson-Fallon by the third week of class. The ESS office manager sets her appointments; call 216-368-5230 to arrange an appointment. (The following section lists seminar dates and times.)

To attend each seminar, you must reserve your space by going to [http://studentaffairs.case.edu/education/tatraining/](http://studentaffairs.case.edu/education/tatraining/). From that page, select My TA Training, where you can login and reserve your spot for each seminar. You must register no later than 5:00 p.m. the day before the seminar, but preferably earlier than that time. You cannot register the day of the seminar, because the Mentor TA team needs to know the number of attendees in order to make appropriate plans for each seminar.

The first time you register at the TA Training website, you will be asked to complete a demographic profile to help organize the small-group discussions for various seminars.

Approximately one week before each seminar, you will receive a reminder email announcement. This message will be sent to your university email account, which you are responsible for activating and reading on a regular basis. If you do not receive these messages, you should contact Professor Olson-Fallon immediately.
Each seminar is 60, 75 or 90 minutes long. You must be on time (or preferably early) and stay for the entire seminar to receive credit. We provide an attendance sheet at each seminar. If your name (signature) does not appear on the attendance sheet, you will not receive credit for that seminar.

Because some of the seminars occur around noon, you are welcome to bring your lunch.

Within two weeks of any seminar, we will post attendance on the TA website: http://studentaffairs.case.edu/education/tatraining/, then click on My TA Training to view your attendance record and grade. If you have any questions regarding your attendance, please contact Professor Olson-Hammer. Please check with Professor Olson-Hammer immediately rather than waiting until the end of the semester.

Before you leave each seminar, you will receive an evaluation form. Your feedback is vital to this program, so please complete the surveys.

For any questions or concerns regarding UNIV 400, please address them to

Judith Olson-Hammer  
Director of Educational Services for Students  
The Office of Educational Services for Students  
470 Sears Building  
Cleveland, Ohio 44106  
Office Line for Appointments: 216.368.5230  
jko2@case.edu
The **Instructional Team** consists of Professor Judith Olson-Hammer, Director of Educational Services for Students (ESS), and the **Mentor TA** team. The **Mentor TAs** are selected from departments throughout Case Western Reserve University to help plan and present UNIV 400 seminars. Mentor TAs choose topics, secure speakers, and facilitate the programs. They also maintain attendance and grade records for UNIV 400.

### Faculty

**Will Bradford**
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- Department: English

**Kacey Dananay**
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**Jamie Matic**
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- Department: Electrochemistry

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- Email: ams359@case.edu
- Department: Art History

### Student Mentors

**Will Bradford** – Will is a second-year MA student of English Literature. He holds a BA (Hons), also in English, from the University of Lincoln in the UK and his research interests are centered on and around literary forms of traumatic expression. In addition to working as a Mentor TA, Will is an instructor for the English 180 course and for the Writing Resource Center.

**Kacey Dananay** – Kacey is currently a second-year PhD student in Biology with a concentration in Ecology and Evolution. She received her BS and MS from The Pennsylvania State University. Kacey’s general research interests revolve around anthropogenic pollution. Her previous research focused on the effects of ecological light pollution and global climate change on mammals and amphibians. Her current research focuses on the effects of road salt usage on amphibian populations in both terrestrial and aquatic environments. In her spare time, Kacey enjoys scuba diving, jet skiing, hiking, cooking, watching tv shows and movies, and hanging out with her cats.

**Nicholas Georgescu** – Nick is a PhD student in the chemistry department. He does webpages and programming and even wrote the very website you’re currently browsing! He started his undergraduate college at 15, enjoys playing progressive/death metal, has been a vegetarian for six years now, and his first language was Romanian.

**Jiale Li** – Jiale is currently a third-year PhD student at CWRU in the Dept. of Civil Engineering with a concentration in Structural Engineering. He received his BS degree from Tianjin University in China and MS degree from CWRU. His research at CWRU is focused on developing structural loading criteria and behavior of offshore wind turbine support structures. He participated in a lot of volunteer work in his spare time like teaching in poor area in northwest of China and service in the World Economic Forum. He also enjoys playing guitar and swimming. He is very happy to meet all the students in UNIV400 and be friends with them.

**Jamie Matic** – Jamie is a PhD candidate in the chemistry department entering her 3rd year at Case with
research interests in alternative and renewable energy. In her free time she enjoys cooking delicious food, playing tennis, long bike rides, and a few nice cups of coffee. Jamie has been a TA through her undergraduate studies as well as her time at Case and enjoys interacting with students and learning from them.

Anna Schuer - Anna is currently a second-year Master's student at CWRU in the Department of Art History. Her focus is in modern art with a particular interest in Surrealism and the work of Salvador Dalí, and she plans on continuing her studies in a doctoral program. She serves as an intern both at the Cleveland Museum of Art and at the Ad Reinhardt Foundation, and in the past she has interned at the Phoenix Art Museum, the Phoenix Airport Museum, and the Firehouse Gallery. Before she returned to school to study Art History, she taught various subjects in both middle school and high school including Language Arts, English as a Second Language, Social Studies, and Math. In her free time, she enjoys tap dancing with the Spartan Tappers, reading a novel, or cooking a new dish.
Teaching Assistant Educational Requirements
Case Western Reserve University
(approved 1993)

Overview
Case Western Reserve University is committed to ensuring excellence in its undergraduate programs; hence the instructional roles that graduate students assume are of critical importance to the University in fulfilling its educational mission. All graduate students with instructional responsibilities, otherwise known as Teaching Assistants (TAs), are expected to interact with undergraduates in academic settings.

Fulfillment of the TA training requirements will be an important element in evaluating the performance and possibility of continuing appointment of a new graduate TAs in their instructional or instructional support roles.

New graduate TAs are expected to enroll in the non-credit course:
UNIV 400 - Professional Development for Graduate Teaching Assistants

All new graduate students who have or who will have instructional responsibilities must enroll in UNIV 400 their first semester on campus. The required course consists of seminars that focus on effective professional communication and instructional skills and that provide Teaching Assistants with opportunities to discuss and reflect on their instructional roles.

Teaching Assistants who are native speakers of English will enroll in:
UNIV 400A - Professional Development for Graduate Teaching Assistants

Teaching Assistants who are not native speakers of English will enroll in:
UNIV 400B - Professional Development for International Graduate Teaching Assistants

Both UNIV 400A and UNIV 400B students must attend the Campus-wide TA Orientation. This seminar is held in August for fall enrollees and in January for spring enrollees.

UNIV 400B students must also attend the International Teaching Assistant Orientation. This seminar is also held both in August and January. Furthermore at this orientation, all new international TA’s must schedule a spoken English evaluation, at which time their spoken English proficiency will be evaluated. Those enrolling in University 400B in the fall should schedule their evaluation in August; those enrolling in January will receive a spoken English evaluation in January as well.

International Teaching Assistants who do not meet the Case Western Reserve minimum requirements for spoken English, must enroll in UNIV 400C - ITA Communication Skill Development.
Instructional Roles of Teaching Assistants

While individual departments at Case Western Reserve University set their own job responsibilities and standards for graduate teaching assistants, TA instructional responsibilities usually fall into five categories. Your department may initially assign you to a role as a Research Assistant, but you may serve in one or more of the following roles during your studies at Case Western Reserve.

**Grading Assistant**
Grading Assistants work closely with a professor, either individually or with other TAs, to evaluate homework, quizzes, and examinations. Although formal, structured contact with students may be minimal, grading assistants meet informally with students who may have questions about grades. For TAs working as grading assistants, striving to maintain consistent grading procedures within the course is imperative. It is also important to remember that feedback on graded assignments, papers, and exams is part of the teaching process, and students learn from the information and suggestions you provide.

**Instructor**
Some TAs at Case Western Reserve have full instructional responsibilities for a class section. This responsibility includes setting the syllabus, choosing texts, and determining final grades for each student. Instructor TAs determine the content of each class session, teach these sessions, evaluate all student work, and encourage communication through individual conferences with their students.

**Lab Assistant**
Lab assistants are responsible for setting up and running laboratory sessions. They must have the knowledge and skill to run demonstrations to explain procedures in terms simple enough for students to understand the task well enough to repeat it. Circulating in the lab to answer questions and to determine whether students understand the experiments demands sensitive teaching skills.

**Recitation Leader**
Recitation Leaders lead class sessions that provide opportunities for students to ask questions about lectures or homework or to review for tests. They may have prepared lesson plans for these sessions but usually the discussion centers on student-generated questions. As a result, these TAs must be ready for any question, usually dealing with material the students have difficulty understanding.

**Tutor**
Tutors generally work with students on a one-to-one basis. During regular office hours and extra help sessions, these TAs are sought for their expertise in the subject matter. Their true value, however, lies in encouraging students to explore approaches to solving problems, rather than answering students’ questions directly.
UNIV 400 Course Description

UNIV 400A - Professional Development for Graduate Teaching Assistants (TAs)
is comprised of an orientation and the four required seminars for new TAs designed to develop skills incommunication and teaching. Required of students with graduate appointments that includeinstructional responsibilities.

UNIV 400B - Professional Development for International Graduate Teaching Assistants (ITAs)
In addition to satisfying the requirements of UNIV 400(A), ITAs are required to attend a specialhalf-day ITA orientation, which is scheduled each August and January; ITAs must also participate inan evaluation of their spoken English.

Students have a total of two consecutive semesters to complete either UNIV 400A or UNIVB. Oncestudents complete the course, they will receive a Pass (P).

Students who do not complete the course within the first semester will receive anIncomplete (I). They do not need to re-register for the next semester.

If students do not complete the course within two consecutive semesters, they will receive aNo Passing grade (NP).

UNIV 400C - ITA Communication Skill Development
A small-group, interactive course that concentrates on American culture, pronunciation, idiomaticusage, English grammar, and public speaking. Required of all new ITAs who do not meet theminimum standards on the UNIV 400C spoken English evaluation. Students must meet the minimumstandards on the course exit exam to complete the course. Students may have up to two semesters tocomplete the course. However, the course instructor will determine which students need more thanone semester. Students who are required to continue on for a second semester will be given anIncomplete (I). Students receiving an I, do not need to re-register for the course for the second semester.If they complete the course within the second semester, they will receive a Pass (P). If they do not passthe course within the two-semester limit, they will receive a No Passing grade (NP). UNIV 400 C maydelay taking UNIV 400 B for the semester that they are enrolled in UNIV 400 C in order to give themtime to improve their spoken English.

Non-completion of UNIV 400A, UNIV 400B, or UNIV 400C will be reported both to the Office of Graduate Studies and to the student’s academic department.

Objectives of UNIV 400
UNIV 400(A) Professional Development for Graduate TAs and UNIV 400(B) Professional Developmentfor International TAs have been designed to meet these objectives:

1. To sensitize graduate teaching assistants to the issues of undergraduate teaching at Case Western Reserve
2. To improve the quality of the interactions between graduate teaching assistants (TAs) and the undergraduate students enrolled in the courses to which the TAs have been assigned
3. To underscore the importance of each TA’s instructional role and the value of teaching at Case Western Reserve
4. To introduce graduate students to the professorate and the life of the academy at a private research university
5. To inform graduate TAs about student services that will assist in their work with undergraduates
Case Western Reserve University’s mission is to serve society as a leading center for undergraduate, graduate, and professional education; for research that enriches the world and addresses its priorities; and for active, responsible world and community citizenship. The students, faculty, staff, volunteers, alumni, and others who constitute the University community pursue and represent this mission through their teaching, research, professional activities, and public service, all marked by a commitment to continuous learning.

History
Although its origins date to 1826, the university in its present form is the result of the 1967 federation of Case Institute of Technology and Western Reserve University. The two institutions had shared adjacent campuses since the late nineteenth century and were involved in cooperative efforts for many years. Rivalry between the schools was strong, however, and the federation was an emotional matter for many faculty and alumni. Nationally, observers saw the joining together of an institute of technology and a liberal arts university as an unprecedented action, a singular opportunity to promote interaction between the dominant themes in American culture.

Western Reserve College was founded in 1826 in Hudson, Ohio, a town 26 miles southeast of Cleveland. The College took its name from that of the region which, at the time of the American Revolution, was known as the Western Reserve of Connecticut. In 1882, renamed Western Reserve University and boasting a medical school in addition to its undergraduate programs, the institution moved to the Cleveland site that later became known as University Circle. There it joined Case School of Applied Science, founded in 1880 through the bequest of Leonard Case, Jr., a leading citizen of Cleveland. The name Case Institute of Technology was adopted in 1947 to reflect the institution’s growing stature. For more about the university’s long history, go to this website:
http://www.case.edu/about/history.html

Priorities
The University’s highest priority is on learning. This priority encompasses a wide range of activities, from formal classes and extracurricular activities for students to research and other activities for continuous development of the knowledge and skills of faculty and staff. In the interest of learning and in recognition of the special role that society assigns to universities, we make parallel and inseparable commitments to teaching and research.

Case Western Reserve enrolls promising students in courses and programs in the arts and sciences, in engineering and the applied sciences, and in the professions of dentistry, law, management, medicine, nursing, and social work. We have no task more important than the superlative education of these students, which includes classroom and laboratory instruction, advising, mentoring and other assistance, and providing a campus environment that supports learning through a challenging curriculum, high standards, and active scholarship. Our goal in this education is to help our students develop in-depth knowledge in a field of special study as well as integrate the humanistic, scientific,
technological, and professional cultures that are represented within the University, thus to prepare them to make important contributions to society.

The University is itself a community, but it exists in several communities as well—University Circle, the City of Cleveland, the State of Ohio, the United States, and the world. We draw from each, and we contribute to each. We are committed to the principle that a great university must be active at each level of community, and that it can be no greater internationally than locally. In support of this principle, we encourage and support activities by faculty, staff, students, alumni, and other members of the University that address community needs and opportunities. We pledge as well that the University will itself be a responsible citizen.

The Community of Case Western Reserve University

Faculty
The full-time faculty numbers over 2,000, supplemented by part-time and voluntary faculty. Virtually all faculty hold the doctorate or other appropriate terminal degree. About 33 percent of the members of the full-time faculty have tenured appointments. The University expects current and prospective faculty to be dedicated to effective teaching as well as to research and scholarship. Case’s former students and faculty include eleven Nobel laureates.

A Faculty Senate of 56 elected and ex officio members represents the University Faculty in institutional affairs. The faculties of the individual schools and colleges also have their own elective bodies to address issues at that level.

Students
Case Western Reserve enrolls approximately 9,900 students -- 12 percent in undergraduate programs, and the balance in graduate and professional programs. More than two-thirds of all students attend full time. Among the University’s 1,300 international students are representatives of more than 100 nations. Domestic students represent all 50 states and the District of Columbia.

Admission to Case Western Reserve’s programs is highly selective, producing a student body with strong academic credentials and the ability and willingness to accommodate diverse interests and points of view among fellow students.

Applicants to the various graduate and professional programs are evaluated by each of the academic units offering these programs. Admission to the University’s graduate and professional programs is also highly selective.

About 98 percent of the University’s undergraduate students live on campus in residence halls and in fraternity and sorority houses. A smaller share of graduate and professional students live on campus, although many rent apartments nearby. Students elect representatives to serve on a number of governance and leadership panels, with coordination provided by the Office of Student Affairs and the deans’ offices. More than 100 student organizations offer opportunities for recreation, volunteer service, and personal growth.
Before You Begin

“You have to know who your students are. If you don’t know who they are, you can’t teach them.”

~ Professor Susan Hinze, Sociology
Understanding Your Students

Many answers to the previous questions depend on what you know about the students coming into your classroom. The section entitled, “The Community of Case Western Reserve University” at the beginning of this TA Manual has information about the university’s student body, but you should also consult with your colleagues to learn about your particular students. Consider these questions:

Who enrolls in this class? Majors? Non-majors?
The nature of the class you are teaching may determine the answer to this question. An upper-division course may draw majors only; a class which fulfills a university core requirement may be composed mostly of non-majors; and a first-year introductory course may have majors, non-majors, and students whose decision to major in your field may depend on the outcome of this particular class. If most students are unfamiliar with your discipline, you may need to do a substantial amount of background explanation; with majors, you can assume more knowledge and move more quickly to advanced material.

What are students’ goals for this course? Do they coincide with yours? How will you deal with any differences?
Your goals for the course may include covering a certain amount of information, completing several papers, or developing an understanding of key principles. Student goals may include earning an A, just passing, completing a core requirement, or deciding whether to major in this field or to minor in it. Each student may have several goals that are not quite compatible with yours—or even with one another. Ask your students on the first day why they are taking your course and what they hope to learn from it. Clearly state your goals for the course and how your objectives may complement those of your students.

Are students prepared for the conventions of your discipline?
Your class is an opportunity to introduce students to the styles and conventions of your discipline or to help them master what has already been introduced. Decide which conventions are important, and then be prepared to teach or review them. If papers are to be written according to a particular style—such as the styles of the American Psychological Association (APA) or the Modern Language Association (MLA)—direct students to style guides and note any problems when reviewing and grading. If certain laboratory procedures are standard in your profession, teach and evaluate them as well as specific experiments. The Purdue University’s Purdue Online Writing Lab (OWL) website offers a very user-friendly resource for editing, proofreading, and research citations. The OWL may be found at http://owl.english.purdue.edu/

Administrative Issues

If you are teaching one of several sections or assisting a professor, you will have some extra work to do to be ready for the course. Before class begins, meet at least once with everyone who is involved in the course—faculty, TAs, graders, laboratory assistants, tutors, or recitation leaders. The faculty member in charge should organize this meeting; but if nothing has been arranged, a TA could take the initiative to gather everyone together. However, inform the faculty member of your intentions.
At the first meeting, the following questions should be addressed:

1. What responsibilities do TAs have? How much individual freedom is appropriate to fulfill those responsibilities?

2. How many students are enrolled in the course? What are their majors and are they freshmen, sophomores, juniors, seniors, or non-traditional students? Ask the professor if the TA’s may have access to the picture roster that is available through SIS. This pictorial roster will help you learn the students’ names quickly at the beginning of the semester. Students will feel that you are interested in them as individuals because you took the time to learn their names.

3. What are the course goals and grading criteria? What is the best way to standardize them across sections or courses?

4. How much time is required for office hours, grading, and meetings? How will that be scheduled?

5. What kinds of problems are anticipated? How are those problems to be solved?

Other details may also need to be clarified such as enrollment procedures, course material selection and availability, or the location of TA offices. It is important to make sure everyone has a full understanding of how the course is supposed to work; otherwise, you will be unprepared for student questions or problems.

**Previewing Your Classroom or Lab**

Knowing where your classroom/lab is and what it looks like are small details compared to developing an entire course outline and schedule of assignments but never underestimate such small details! Particularly if you are new to the Case Western Reserve campus, it is a good idea to find out ahead of time how long it takes to reach your classroom/lab (and how lost equally new students might get when trying to find it the first day).

**Seeing your classroom/lab ahead of time will help you make important decisions about how you will conduct class:**

- Is the room large? Small?
- Does it echo or swallow sound?
- Will the heat, light, or nearby noise be a problem, and what can you do to alleviate it?
- Is the shape of the room conducive to how you want the students to sit for lecture or discussion or for working on group projects?
- What kind of equipment is available in the room? What level of technology is available in the classroom?
- Can you move the chairs or tables around, or will you have to work with fixed rows of seats?

**Knowing the atmosphere of your classroom ahead of time can also help you decide what kind of an entrance to make.**

- Do you want to arrive early and chat informally with students before class?
• Arrive just in time to make a more formal entrance?

Some rooms demand a more formal approach; others are so austere that being overly formal yourself can make the whole first-class session seem forbidding to a new student. By visiting your classroom ahead of time, you can then plan how to make your first class a successful experience for both your students and you.

**Syllabus Development**

**It is often said that a syllabus is a contract between student and instructor.** Although this statement may seem overly dramatic, the syllabus is where you specify in writing what you expect from your students and what you in turn intend to do for them. A well-crafted syllabus helps you keep your course focused and reduces the chances of students protesting “I did not know we had to do that!”

**A syllabus should contain the following elements:**

1. The name of the course and its number
2. The meeting time and location
3. Names of faculty, TAs, and other appropriate staff
4. Telephone numbers and email addresses, along with comments about best times to call or whether it is appropriate to call instructors at home
5. The office locations and office hours scheduled for course staff
6. A course description. Resist the temptation to make it short and snappy just to save space this description is a good place to indicate your goals, teaching methods, and overall philosophies. A clear course description may encourage a student to choose your section over another or to opt for your course instead of a different one offered at the same time.
7. A schedule of assignments with clearly indicated due dates
8. An explanation of policies for attendance, assignment formats and styles, late or missed assignments, and academic integrity
9. A clear explanation of what work counts toward the grade, what proportion of the grade each item represents, and what criteria are used for grading
10. A list of all reading materials indicating where they may be found
11. Information on the University’s Disability policy (See below)
12. If appropriate, the location of other useful resources, such as tutoring offered through Educational Services for Students (ESS), the SAGES Peer Writing Crew, or the Writing Resource Center. (Please see the following information, as well as the Educational Resources and Information section of the TA Manual’s Appendix.)
13. You may want to list ESS weekly study skills programs, ( Thursdays, noon to 1). Contact Rhonda Moore, 368-5230 for the topic list. You may wish to offer extra credit for those who attend any of these programs. ESS also offers a presentation seminar series. You may wish to inform students about this series if you are planning presentations for your course. Finally, you can also arrange to have ESS come to your class to deliver a study skills and/or presentation seminar.
14. You may want to include a statement that you reserve the right to adjust your syllabus during the assignment, with a sufficient written announcement.
**Students with Disabilities**

One section you should include on your syllabus is a statement acknowledging the needs of students with disabilities. Students with physical and learning disabilities require various kinds of accommodations; please also see the Students with Disabilities section of this TA Manual.

Disability Resources recommends including the following clause in your syllabus:

> During the semester I am [or, the instructor is] prepared to meet individually [by appointment] with any and all students enrolled in this course. That is especially true during the first week of class and especially true for students with disabilities who are registered with Disability Resources (216-368-5230) and who may need individual arrangements.

**Academic Integrity**

Your syllabus should have a section on Academic Integrity, defining what is expected of your students. For in-depth information on Academic Integrity, please see the Ethics Seminar section of this TA Manual.

**Academic Resources to include in your syllabus**

The SAGES Peer Writing Crew is a team of undergraduate tutors who provide writing support to students in the SAGES program. Crew members can help at any stage of the writing process – generating ideas, composing a first draft, revising, or responding to an instructor’s comments.

The Crew offers one-on-one tutoring appointments during daytime, evening, and weekend hours at various locations around campus, including Wade Commons (in the North Residential Village) and Fribley Commons (in the South Residential Village). Students can schedule appointments by visiting [http://tutortrac.case.edu](http://tutortrac.case.edu). In addition, the Crew is available for online consultations: students can send questions to the Crew via Instant Messenger, submit papers to an electronic drop box, or confer about an assignment through Adobe Connect.

For more information about the Writing Crew, please refer your students to [http://studentaffairs.case.edu/education/resources/sagesguide/crew.html](http://studentaffairs.case.edu/education/resources/sagesguide/crew.html) or [http://www.case.edu/sages/writingcrew/](http://www.case.edu/sages/writingcrew/)

If you have questions about the Writing Crew, please contact Judith Olson-Fallon, 216-368-8825 or jko2@case.edu.

The Writing Resource Center (WRC), located at Bellflower Hall, is staffed by graduate students from the English Department and a professional staff member. WRC have multiple campus sites where they will meet with students. Theses sites are listed in their e-scheduling system. They also have e-appointments.
Educational Services for Students (ESS): Supplemental Instruction (SI) and Peer Tutoring

As a TA, you are likely to encounter students in need of additional academic assistance beyond what you or the professor has time to provide. In these cases, it is essential that you are able to refer students to a resource where they can obtain the assistance they need. Educational Services for Students (ESS) offers two services specifically designed to provide students additional academic assistance outside of the classroom:

**Supplemental Instruction** (known by students as SI), and **Peer Tutoring**.

If you find that you need to refer a student to SI or Peer Tutoring, you can copy and distribute the following information as needed.

**Supplemental Instruction (SI)**

The Supplemental Instruction (SI) program provides regularly scheduled student facilitated group study sessions for traditionally challenging courses, including first-year biology, chemistry, engineering, and physics classes. SI sessions are free and student participation is completely voluntary. Attending sessions allows students to ask questions, review notes, practice problems, prepare for exams, and reinforce material you already know in a relaxed environment. Sessions are led by SI leaders—students who have successfully completed the course, are recommended by the professor, and have been trained by ESS. The SI leaders consistently receive at least a 95% approval rating from the students attending the SI sessions.

During SI sessions, the SI leader will facilitate an activity related to recent material covered in the lecture. The goal is to involve you with the material and to introduce good study skills and habits. Some activities may include a practice quiz, vocabulary building, creating review sheets, or collectively working on problems on the board. Depending on the number of SI leaders for your course, there may be anywhere from two to six 90-minute sessions per week.

Visit [ess.case.edu/si](http://ess.case.edu/si) for details and to view the complete SI schedule.

**Peer Tutoring**

Peer tutors are your fellow students who have been nominated by your professors and trained by ESS to work with you on an individual and/or group basis in many undergraduate courses. Peer tutors can help you clarify course content and assignments, connect class notes and readings, and help you practice problem solving. Additionally, peer tutors can help you reinforce what you already know, model new ways of learning, monitor your progress over several sessions, and prepare you for addressing specific questions with the professor. Peer tutors have been trained to work with you in ways that your professor may not be able to do in class.

Students can schedule up to five free appointments of tutoring each week at least a 24-hour notice. The Peer Tutors routinely receive at least a 95% approval rating from the students who see a tutor. If students needs more than 5 weekly appointments or if they cannot find a tutor time that works with their schedule or cannot find the subject for which they need tutoring, they should contact James Eller, ESS Associate Director of Academic Resources. Search peer tutoring availabilities and schedule appointments at [tutortrac.case.edu](http://tutortrac.case.edu).

Please see the following samples of exemplary syllabi.
Sample Syllabi

You may choose to model your syllabus after the following syllabi. You should also consider asking professors or TAs from your department for their syllabi to work from when developing your syllabus.

COGS 101: Introduction to Cognitive Science          Fall 09
TR 10-11:15, DeGrace 312

Contact information
Instructor: Fey Parrill: fey.parrill@case.edu
Crawford 612B, 368-2795
Office hour: W, 3-4 (or by appointment)

Teaching Assistant: Patricia Lichtenstein: patricia.lichtenstein@case.edu
Crawford 612C
Office hours: Tu, 2-3 (or by appointment)

Summary of course requirements: midterm, final, three homework assignments, participation.

Course description:
This course introduces students to the field of cognitive science. Cognitive scientists are interested in the nature of the human mind—basically, we ask how humans think. This is a huge question, and has been addressed in one way or another by pretty much every academic field. Cognitive science tries to unite work from many different fields, including computer science, neuroscience, psychology, linguistics, philosophy, music, and literary theory. In this course, we’ll get a basic introduction to some of the topics that are central to human cognition, such as intelligence, categorization, language, and creativity. We’ll ask what can be gained by taking an integrated, cognitive scientific approach to these topics.

Course Goals:
By the end of the course, you should be able to:
- Define basic concepts and terms used in cognitive science.
- Describe the different methods used in cognitive science.
- Compare the approaches to a question taken by different disciplines.

Course requirements:
Grade breakdown: Participation: 5%, Homework assignments: 44%, Exams: 51%. Please see the detailed grade breakdown at the end of the syllabus.

- Participation: Students will be randomly called on to respond to questions in this class. When you’re called on, if you’re present and make an effort to answer, you’ll receive participation credit whether or not you know the correct answer.
  - Note: Given that you will be called on, let the instructor know if you experience social anxiety so she can work out a way for you to participate.
- Exams: You’ll have a midterm and a final exam, testing basic terms and concepts and asking you to synthesize ideas.
- Homework: You’ll complete three homework assignments. These homework assignments must be discussed in groups, and written up individually. You’ll get a sheet at the beginning of class asking you about your interests and allowing you to request particular group members. Group assignments will be posted on the course website.

MediaVision Courseware. Lectures can be accessed at this URL: http://courseware.case.edu
Schedule of topics and readings:

- Additional required readings will be available via our Blackboard course site: http://blackboard.case.edu/
- When to read: The “read by” tells you when you should have completed the reading.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Welcome to the field of cognitive science!</td>
</tr>
<tr>
<td>8/25</td>
<td>What is cognitive science?</td>
</tr>
<tr>
<td>8/27</td>
<td>Intelligence: What is it, how can we study it, what's it got to do with cognitive science?</td>
</tr>
<tr>
<td>Week 2</td>
<td>Concepts &amp; categories</td>
</tr>
<tr>
<td>9/1</td>
<td>Concepts &amp; categories: How do we represent and organize things?</td>
</tr>
<tr>
<td>9/3</td>
<td>Memory I: Mental imagery. Homework 1 posted: Due 9/17</td>
</tr>
<tr>
<td>Read by 9/15</td>
<td>F&amp;S Chapter 5</td>
</tr>
<tr>
<td>Week 3</td>
<td>Memory &amp; attention</td>
</tr>
<tr>
<td>9/8</td>
<td>Memory II: Storing representations.</td>
</tr>
<tr>
<td>9/10</td>
<td>Attention.</td>
</tr>
<tr>
<td>Week 4</td>
<td>Language I</td>
</tr>
<tr>
<td>9/15</td>
<td>Interim summary and discussion. Homework groups provide discussion questions.</td>
</tr>
<tr>
<td>9/17</td>
<td>HW 1 DUE. Language I. What is language? How can we study it scientifically?</td>
</tr>
<tr>
<td>Read by 9/24</td>
<td>F&amp;S Chapter 9</td>
</tr>
<tr>
<td>Week 5</td>
<td>Language &amp; nonverbal communication</td>
</tr>
<tr>
<td>9/22</td>
<td>Language II.</td>
</tr>
<tr>
<td>9/24</td>
<td>Gesture.</td>
</tr>
<tr>
<td>Week 6</td>
<td>Neuroscience</td>
</tr>
<tr>
<td>9/29</td>
<td>Neuroscience I.</td>
</tr>
<tr>
<td>10/1</td>
<td>Neuroscience II.</td>
</tr>
<tr>
<td>Week 7</td>
<td>Philosophy</td>
</tr>
<tr>
<td>10/6</td>
<td>Philosophy I. Homework 2 posted: Due 10/27</td>
</tr>
<tr>
<td>10/8</td>
<td>Philosophy II.</td>
</tr>
<tr>
<td>Week 8</td>
<td>MIDTERM EXAM WEEK</td>
</tr>
<tr>
<td>10/13</td>
<td>Review for Midterm Exam.</td>
</tr>
<tr>
<td>10/15</td>
<td>Mid Term Exam.</td>
</tr>
<tr>
<td>Read by 10/27</td>
<td>F&amp;S Chapter 10</td>
</tr>
<tr>
<td>Week 9</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>10/20</td>
<td>FALL BREAK.</td>
</tr>
<tr>
<td>10/22</td>
<td>Artificial intelligence.</td>
</tr>
<tr>
<td>Week 10</td>
<td>Connectionism, robotics</td>
</tr>
<tr>
<td>10/27</td>
<td>HW 2 DUE. Connectionist networks &amp; robotics.</td>
</tr>
<tr>
<td>10/29</td>
<td>Robotics 2, animal cognition.</td>
</tr>
<tr>
<td>Week 11</td>
<td>Evolution, development and emergence</td>
</tr>
<tr>
<td>11/3</td>
<td>Distributed cognition &amp; built environments, emergence. Homework 3 posted: Due 12/01.</td>
</tr>
</tbody>
</table>
11/5  Understanding other’s mental states.

Week 12  Information design & human factors
11/10  Interim summary and discussion. Homework groups provide discussion questions.
11/12  Cognitive development.
Read by 11/24  Keller, J. (2003, Jan 22). Is PowerPoint the Devil? *Chicago Tribune*. You actually are reading this syllabus carefully. Send the instructor an e-mail and she’ll give you a prize.

Week 13  Analogical reasoning
11/17  Analogy & problem solving.
11/19  Design.
Week 14  What can the study of human creativity tell us about the mind?
11/24  Cognitive science and the arts, synesthesia.
11/26  NO CLASS: Thanksgiving break.

Week 15  Summary and exam prep
12/1  HW 3 DUE. How has the course changed your understanding of the human mind?
12/3  Final Examination Review.
TBA  Final Examination

Course policies:
- *Late exams* will be given only in cases of emergency. Early exams may be given at discretion of instructor.
- *Late homework* will be accepted for full credit only in cases of emergency. Emergencies must be documented. Points will be deducted for homework turned in late.
  - Not turned in by the beginning of class = - 1 point
  - Not turned in by 5 pm = - 5 points
  - Not turned in by 5 pm the following day = - 10 points
  - Not turned in by 5 pm on the third day = - 15 points. Thereafter, no credit will be given.
- *Attendance* is mandatory and is part of your grade, as discussed in the class participation section above.
- *Laptops in class* are welcome, but should be used for class material.
- *Academic honesty*: Cheating of any kind will be treated as a serious offence. See the policies on violations of academic integrity here: http://www.case.edu/provost/ugstudies/acintegrity.html.
- *Students with disabilities*: Students who need accommodations should first meet with someone in Disability
  - Resources (368-5230) to determine whether accommodations are appropriate. If they are, you will meet with the instructor to arrange accommodations. For more information about disability resources, go to http://ess.case.edu/disability.

Below is a detailed grade breakdown. Grades will be posted on Blackboard. You will receive the grade you earn (no curve). Letter grades assigned≥90%≥80%≥70%≥60%≤59%as follows:A,=B,C,=D,F.

<table>
<thead>
<tr>
<th>Grade breakdown</th>
<th>Points</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>5% (10 pts)</td>
<td></td>
</tr>
<tr>
<td>Speaking in class</td>
<td>5</td>
<td>When you’re randomly called on: if you’re present and try to respond, you’ll get 5 points.</td>
</tr>
<tr>
<td>Interim summary Qs</td>
<td>5</td>
<td>Your homework group will be asked to provide questions once.</td>
</tr>
<tr>
<td>Homework assignments</td>
<td>45% (90 pts)</td>
<td></td>
</tr>
<tr>
<td>Total homework assign.</td>
<td>90</td>
<td>3 @ 30 points.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>----------------</td>
<td>------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Exams</td>
<td>50% (100 pts)</td>
<td></td>
</tr>
<tr>
<td>Midterm</td>
<td>50</td>
<td>Short answer, short essay.</td>
</tr>
<tr>
<td>Final</td>
<td>50</td>
<td>Short answer, short essay.</td>
</tr>
<tr>
<td>Total points</td>
<td>200</td>
<td>Your final grade = # points you earned / 200</td>
</tr>
</tbody>
</table>

Final note: This syllabus is provisional. Changes may be made at any time.
FSNA 112: Talking brains: The neuroscience of language

TR 2:45-4, White 322

Contact information:
Instructor: Professor Parrill / fey.parrill@case.edu / 368-2795 / Crawford 612B / Office hours: W 3-4 Writing Coach: Professor Olson-Fallon / jko2@case.edu / 368-8825/ Sears 470 / Office hours TBA

Course description:
J speaks both Italian and English. After suffering a stroke, he finds himself switching to Italian in the middle of a sentence, even when he knows the person he’s talking to doesn’t speak Italian! He can’t stop himself no matter how hard he tries. In this discussion-based seminar, we’ll use cases like J’s to understand how a mass of cells can give rise to something as complicated as human language. We’ll use primary source readings from neuroscience, psychology and linguistics to study topics such as the typical organization of language in the brain, bilingualism, sign language, and problems with language resulting from brain injury. In the second half of the course, students will choose topics, find readings, and lead discussions. Potential topics include:

- Music and language in the brain
- Specific Language Impairment
- Pathological code switching
- Spoken and signed languages
- Language and gesture
- Language in non-human primates

Course requirements:
Writing assignments (50%), participation & attendance (25%), writing folder (25%). See detailed grade breakdown at the end of the syllabus.

- Writing assignments: You will write weekly one-page responses to readings, an annotated bibliography (5-7 pages), and a research paper (8-10 pages). The shorter writing assignments will support your research paper. You will also receive points for meeting with the writing coach. See the handout “112_writing_handout.pdf” for more information.
- Participation: You must attend all classes and 4th hour activities, and participate actively in both. You will also receive points for leading discussion.
- Writing folder: The writing folder includes a revised version of your research paper and a self-assessment piece.

Course schedule and readings:
No required text. Readings are available via our Blackboard course site: http://blackboard.case.edu.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics &amp; readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction: Goals &amp; background.</td>
</tr>
<tr>
<td>T 8/26</td>
<td>What’s the course about? How will it work?</td>
</tr>
<tr>
<td>W 8/27</td>
<td>Fourth hour: Cleveland Botanical Garden.</td>
</tr>
<tr>
<td>TR 8/28</td>
<td>Writing support: What makes a good weekly response paper?</td>
</tr>
<tr>
<td>Week 2</td>
<td>What is language?</td>
</tr>
<tr>
<td>T 9/2</td>
<td>Discussion: Blakeslee reading.</td>
</tr>
<tr>
<td>TR 9/4</td>
<td>Writing support: how do you summarize without copying?</td>
</tr>
<tr>
<td></td>
<td>Norton &amp; Company. Chapter 4, The Brain, pp. 96-111.</td>
</tr>
<tr>
<td>9/5</td>
<td>First deadline for Writing Coach Points: 4 points.</td>
</tr>
<tr>
<td>Week 3</td>
<td>Basic brain anatomy, imaging methods.</td>
</tr>
<tr>
<td>Date</td>
<td>Activity</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>T 9/9</td>
<td>Discuss Gazzaniga, movie.</td>
</tr>
<tr>
<td>TR 9/11</td>
<td>Writing support: how should quotes be incorporated?</td>
</tr>
<tr>
<td>Week 4</td>
<td>Language areas of the brain, aphasia</td>
</tr>
<tr>
<td>T 9/16</td>
<td>Discussion: Movie, readings, visit from professor. Navigating the brain exercise.</td>
</tr>
<tr>
<td>W 9/17</td>
<td>4th hour: Making the most of academic advising at Case</td>
</tr>
<tr>
<td>TR 9/18</td>
<td>Writing support: how can you find material for your bibliography?</td>
</tr>
<tr>
<td>Week 5</td>
<td>Language learning</td>
</tr>
<tr>
<td>T 9/23</td>
<td>Discussion: Pujol reading.</td>
</tr>
<tr>
<td>W 9/24</td>
<td>4th hour: Library hunt</td>
</tr>
<tr>
<td>TR 9/25</td>
<td>Writing support: evaluating credibility of sources.</td>
</tr>
<tr>
<td>Week 6</td>
<td>Bilingualism</td>
</tr>
<tr>
<td>T 9/30</td>
<td>Discussion: Chee reading.</td>
</tr>
<tr>
<td>W10/01</td>
<td>4th hour: Museum of Natural History</td>
</tr>
<tr>
<td>TR 10/02</td>
<td>Writing support: APA formatting.</td>
</tr>
<tr>
<td>Week 7</td>
<td>Wrap up instructor-led discussions</td>
</tr>
<tr>
<td>T 10/07</td>
<td>Discussion: Neville et al. reading.</td>
</tr>
<tr>
<td>Week 8</td>
<td>Transition to student-led discussions</td>
</tr>
<tr>
<td>T 10/14</td>
<td>NO WEEKLY PAPER. Annotated bibliography due.</td>
</tr>
<tr>
<td>W 10/15</td>
<td>4th hour: Major exploration at Case.</td>
</tr>
<tr>
<td>TR 10/16</td>
<td>Explain student-led discussions; discuss what works best for students in class.</td>
</tr>
<tr>
<td>Week 9</td>
<td>Student-selected topic:</td>
</tr>
<tr>
<td>T 10/21</td>
<td>FALL BREAK.</td>
</tr>
<tr>
<td>TR 10/23</td>
<td>Discussion.</td>
</tr>
<tr>
<td>Week 10</td>
<td>Student-selected topic:</td>
</tr>
<tr>
<td>T 10/28</td>
<td>Discussion.</td>
</tr>
<tr>
<td>TR 10/30</td>
<td>Introduce research paper assignment.</td>
</tr>
<tr>
<td>F 10/31</td>
<td>CHOICES FAIR (12:30-1:45). Second deadline for writing coach points: 4 points.</td>
</tr>
<tr>
<td>Week 11</td>
<td>Student-selected topic:</td>
</tr>
<tr>
<td>T 11/04</td>
<td>Discussion.</td>
</tr>
<tr>
<td>W 11/05</td>
<td>4th hour: Music and the Brain lecture at Severance Hall.</td>
</tr>
<tr>
<td>TR 11/06</td>
<td>Advising assignments</td>
</tr>
<tr>
<td>Week 12</td>
<td>Student-selected topic:</td>
</tr>
<tr>
<td>T 11/11</td>
<td>Discussion.</td>
</tr>
<tr>
<td>TR 11/13</td>
<td>Writing support: E-mails.</td>
</tr>
<tr>
<td>Week 13</td>
<td>Student-selected topic:</td>
</tr>
<tr>
<td>T 11/18</td>
<td>Discussion.</td>
</tr>
<tr>
<td>TR 11/20</td>
<td>Draft of paper due. Writing support: peer review of research papers.</td>
</tr>
</tbody>
</table>
Course Policies:

Speaking in class: Participation grades often seem to reflect more about personality type than degree of involvement. To try to make things fair, we’ll make a note of whether each student has said something during each session, and use those scores to compute this portion of your grade. In order to say something, you obviously have to be present. Being present and saying nothing earns the same score as not being present at all. Also please note: we have a policy of calling on students. If you experience social anxiety, let us know so we can work out a way for you to participate.

Late work will be accepted only in cases of emergency, and emergencies must be documented.

Attendance, tardiness, sleeping in class, etc. Attendance is mandatory and is part of your grade. We expect you to come to class on time and to stay awake. If you bring a laptop, we expect you to use it appropriately.

Academic honesty. Deliberate treatment of another person’s work (plagiarism) is a serious offence. See the policies on violations of academic integrity here: http://www.case.edu/provost/ugstudies/acintegrity.html.

Students with disabilities. Students who need accommodations should call Disability Resources (368-5230), to determine if accommodations are appropriate. You should then meet with us to arrange accommodations. For more information about Disability Resources, go to http://ess.case.edu/disability.

<table>
<thead>
<tr>
<th>Grade breakdown</th>
<th>Points</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation</td>
<td>25%</td>
<td>Total points: 113</td>
</tr>
<tr>
<td>Speaking in class</td>
<td>54</td>
<td>27 @ 2.</td>
</tr>
<tr>
<td>Discussion leading</td>
<td>20</td>
<td>You will lead discussion once.</td>
</tr>
<tr>
<td>4th hour attendance</td>
<td>24</td>
<td>8 @ 3.</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15</td>
<td>3 @ 5.</td>
</tr>
<tr>
<td>Writing assignments</td>
<td>50%</td>
<td>Total points: 226</td>
</tr>
<tr>
<td>Weekly response papers</td>
<td>44</td>
<td>11 @ 4.</td>
</tr>
<tr>
<td>Writing coach meetings</td>
<td>12</td>
<td>3 @ 4. Meet with the writing coach to receive these points.</td>
</tr>
<tr>
<td>Annotated bibliography</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Research paper</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Writing folder</td>
<td>25%</td>
<td>Total points: 113</td>
</tr>
<tr>
<td>Self-assessment piece</td>
<td>75</td>
<td>You’ll write an essay reflecting on the course.</td>
</tr>
<tr>
<td>Revision</td>
<td>38</td>
<td>You’ll revise your research paper.</td>
</tr>
<tr>
<td>Total points possible</td>
<td>452</td>
<td>Your grade = your total / 452. No curve.</td>
</tr>
</tbody>
</table>

Letter grades assigned according
Final note: This syllabus is provisional. We reserve the right to make changes.
Chemistry 111
Principles of Chemistry for Engineers

Instructor: Dr. Michael J. Kenney
Office: Room 203 Clapp Hall
Phone: (216) 368-3736 (O)
(440) 488-3035 (C)
Email: mjk56@case.edu, michael.kenney@case.edu
AIM: kmardad

Office Hours: “Doc’s Place”, Room 205, Millis Hall
Monday and Wednesday, 3:00-4:00
Tuesday and Thursday, 2:00-3:00
Other times by appointment
10:30-11:20 AM on Monday, Wednesday and

Lectures: Friday
10:00-11:15 AM Tuesday
Strosacker Auditorium

Author: Oxtoby, Gillis and Campion
Publisher: CENGAGE
ISBN: 0-534-49366-1

Grading Scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt; 90%</td>
<td>&gt; 675 points</td>
</tr>
<tr>
<td>B</td>
<td>80% - 90%</td>
<td>600-675</td>
</tr>
<tr>
<td>C</td>
<td>65% - 80%</td>
<td>487.5-600</td>
</tr>
<tr>
<td>D</td>
<td>50% - 65%</td>
<td>375-487.5</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 50%</td>
<td>&lt;375 points</td>
</tr>
</tbody>
</table>
Your grade will consist of the following components:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Dates</th>
<th>Total Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15</td>
<td>Wednesdays beginning 8/29</td>
<td>150</td>
</tr>
<tr>
<td>Exams</td>
<td>4</td>
<td>TUESDAYS 9/15, 10/6, 11/03 and 11/24 10:00 AM – 11:15 PM</td>
<td>400</td>
</tr>
<tr>
<td>FINAL</td>
<td>1</td>
<td>WEDNESDAY December 9 4:00 – 7:00 PM</td>
<td>200</td>
</tr>
<tr>
<td>BONUS</td>
<td>TBD</td>
<td></td>
<td>15 no partial credit</td>
</tr>
</tbody>
</table>

**Homework:** Homework will be assigned and your answers will be input to the LON-CAPA site for this course. You will earn one point for each correct answer. Assignments will be due at 11:59 PM (Eastern Time) on each Wednesday of the term. No late homework will be accepted but you may input your answers at any time prior to the due date. Additional information regarding LON-CAPA will be distributed.

**Make-Up Policy – NO makeup exams will be given for any reason.**

**Exams:** Four exams will be given on the following TUESDAYs; September 15, October 6, November 3 and November 24. These exams will be from 10:00-11:15. Room assignments will be made prior to the exam dates. You must report to your assigned room and photo identification will be required for entry. Each exam will be worth 100 points.

**Final Exam:** The Final Exam for this course is scheduled for WEDNESDAY, December 9, from 4:00-7:00 in the evening. The Final Exam is comprehensive. The Final is worth 200 points.

**BONUS:** Opportunities to earn BONUS points will be available to you each week during the semester. You may earn a total of fifteen (15) BONUS points. Due dates for these opportunities will be announced and will be **STRICTLY ADHERED TO** with no exceptions.
ENGR 145 — Chemistry of Materials

Lectures 10:30-11:20, M-W-F, Strosacker Auditorium • Recitations and exams as listed below

Lecturer:    Professor Mark De Guire    White 506    368-4221
mark.deguire@case.edu
Office hours: T,W 3:00 - 5:00; or by appointment
Anti-office hours: mornings before lectures and exams


Web sites:  Mediavision: http://courseware.case.edu/index.php?class=000432101
Contains course-wide resources: lecture videos, lecture slides, this syllabus, homework assignments & solutions, exam solutions, general announcements, … .

Blackboard: https://blackboard.case.edu/webapps/portal/frameset.jsp?tab_id=_1_1
Contains recitation-specific resources: quiz solutions, grades, section announcements, office hours for recitation leaders, … . There is also a link to the Mediavision site directly from the Blackboard site, on the left-hand menu of each section’s home page.

Recitations: Recitations (required) include weekly quizzes and discussions of homework and lectures.

<table>
<thead>
<tr>
<th>Day and time</th>
<th>Location</th>
<th>Recitation leader</th>
<th>e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 8:30 - 9:20</td>
<td>Olin 313</td>
<td>Blair Lumpkin</td>
<td><a href="mailto:blair.lumpkin@case.edu">blair.lumpkin@case.edu</a></td>
</tr>
<tr>
<td>T 10:00 - 10:50</td>
<td>Olin 313</td>
<td>Ken Zhao</td>
<td><a href="mailto:cxz29@case.edu">cxz29@case.edu</a></td>
</tr>
<tr>
<td>T 10:00 - 10:50</td>
<td>Glennan 716</td>
<td>Diana Jiang</td>
<td><a href="mailto:diana.jiang@case.edu">diana.jiang@case.edu</a></td>
</tr>
<tr>
<td>T 10:00 - 10:50</td>
<td>Sears 548</td>
<td>Scott Finefrock</td>
<td><a href="mailto:scott.w.finefrock@case.edu">scott.w.finefrock@case.edu</a></td>
</tr>
<tr>
<td>T 10:00 - 10:50</td>
<td>White 322</td>
<td>Greg Winner</td>
<td><a href="mailto:gtw5@case.edu">gtw5@case.edu</a></td>
</tr>
<tr>
<td>T 1:15 - 2:05</td>
<td>Rockefeller 303</td>
<td>Scott Seidel</td>
<td><a href="mailto:sjs56@case.edu">sjs56@case.edu</a></td>
</tr>
<tr>
<td>T 1:15 - 2:05</td>
<td>Bingham 304</td>
<td>Carolyn Richards</td>
<td><a href="mailto:carolyn.richmonds@case.edu">carolyn.richmonds@case.edu</a></td>
</tr>
<tr>
<td>T 1:15 - 2:05</td>
<td>Sears 354</td>
<td>Chelsea Smith</td>
<td><a href="mailto:cms75@case.edu">cms75@case.edu</a></td>
</tr>
<tr>
<td>T 1:15 - 2:05</td>
<td>Wickenden 306</td>
<td>Brandon Piercy</td>
<td><a href="mailto:bdp8@case.edu">bdp8@case.edu</a></td>
</tr>
</tbody>
</table>
Supplemental instruction ("SI") is optional, interactive group instruction led by upper-class students who are well versed in the course material. Weekly session times and locations will be announced in lectures and posted at the course’s MediaVision website.

<table>
<thead>
<tr>
<th>Day and time</th>
<th>Location</th>
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</tr>
</thead>
<tbody>
<tr>
<td>T 6:00-7:30 p.m.</td>
<td>Clark 308</td>
<td>Paul</td>
</tr>
<tr>
<td>R 6:00-7:30 p.m.</td>
<td>Clark 308</td>
<td>Dan</td>
</tr>
<tr>
<td>Sun 6:00-7:30 p.m.</td>
<td>Clark 308</td>
<td>Paul &amp; Dan</td>
</tr>
</tbody>
</table>

Tutors for ENGR 145 are upper-class students who provide one-on-one assistance with the course material. Appointments can be scheduled through the Office of Educational Support for Students (ESS).

Quizzes: A ten-minute quiz worth 5 extra-credit points is given in every recitation.

Homework: Homework is assigned in every recitation (except for exam weeks). Homework is due in the following recitation. Late homework will not be accepted. Each problem will be graded as follows: full credit for complete, correct answers; half credit for reasonable but incorrect attempts; zero credit for no reasonable attempt.

Materials Selection assignments will utilize CES EduPack 2009, a materials selection and design software package. The software can be downloaded from the CES 2009 EduPack Blackboard site and installed on a computer running Windows. It is also available on the computers in the Nord computer lab.

Exams: Four in-term exams will be held on Feb. 4, Mar. 4, Apr. 1, and Apr. 22, 11:40 – 12:55, locations to be announced. There are no lectures on the following Friday.

The final exam will be comprehensive and will be held on Thursday, April 29, 4:00-7:00, locations to be announced.

Bring pens or pencils and erasers, a straightedge, and a calculator to exams. All exams will be closed-book, closed-notes. Students will be allowed to bring one 3”x5” card (four cards for the final exam) with information of their choice on both sides. Values of fundamental constants and any information from a periodic table of the elements that would be needed to solve the problems will be provided. No other stored information of any kind — electronic, analog, or otherwise — is permitted.

In-term exams will typically consist of 6 problems of various types including computations, problem solving, short answer/multiple choice, graph interpretation, etc. Some exam questions will be similar in content and style to homework problems; others will require application of course concepts in new ways or to new situations.
Solutions: Solutions of all homework and exams will be posted to the course’s MediaVision web site. Solutions of all quizzes will be posted to each recitation section’s Blackboard site.

Makeup policy: There will be no make-up exams, homework or quizzes.

Exam rescoring: Graded exams will be handed back at the following recitation. To have an exam rescoring, a student must submit to Professor De Guire by the following Friday a one-page petition (with the exam) stating what part of the scoring is being questioned and why. The scoring of the entire resubmitted exam will be checked. All rescoring decisions are final. Rescoring is to be requested only in cases of suspected errors or oversights, not to debate the answers or point allocations stated in the solution.

Attendance: Lecture and recitation are the heart of this course, where the most important topics for the exams will be emphasized and the relative priorities of the various topics will be conveyed. Use the reading assignments to enhance your understanding of the lecture material. Use the recorded lectures for review, not as a substitute for attendance at lecture.

Group work: The main reason for homework is to give students practice at applying the concepts and skills being taught in the course. Students who don’t do homework themselves will suffer on exams. The main reason for exams and quizzes is to assess each student’s own level of mastery of the course material. Students are encouraged to work on homework in study groups to aid one another’s learning, but students must work individually during quizzes and exams. All work submitted for grading — homework, quizzes, and exams — must be done by each student individually and must represent that student’s response to and understanding of the assignment.

All suspected instances of academic misconduct, including copying or sharing of another student’s work and cheating on exams or quizzes, will be handled in accordance with CWRU’s Academic Integrity Policy.

Grading scale

<table>
<thead>
<tr>
<th>Points</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
<td>&gt;900</td>
<td>A</td>
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<tr>
<td>800-900</td>
<td>B</td>
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<td>700-800</td>
<td>C</td>
</tr>
<tr>
<td>600-700</td>
<td>D</td>
</tr>
<tr>
<td>&lt;600</td>
<td>F</td>
</tr>
</tbody>
</table>

For in-term exams, assume 90%-100% = A, 80%-90% = B, 70%-80% = C, 60%-70% = D, and 0-60% = F. A curve may be applied at the end of the semester, depending on the overall class performance.

Grading options Final grades will be assigned according to whichever of the following options gives the highest grade earned by each student:

Option 1 (straight weighting) All scores are weighted as follows: 400 points for in-term exams, 250 points for homework; 100 points for materials selection assignments, and 250 points for the final exam. The quiz points are added as extra credit (14×5 = 70 points max.).
Option 2 (drop lowest exam) The lowest in-term exam score will be dropped, and the remaining in-term exams and the final exam will be up-weighted by 18% (=650/550). Then the quiz points are added as extra credit (14×5 = 70 points max.).

Option 3 (opt out of the final) Students whose have earned at least 700 points (excluding extra credit) will be given the option of not taking the final exam and receiving an A in the course.

Option 4 (ace the final) Students who score at least 90% on the final exam, and who have earned at least 60% of the points on in-term exams, homework, and materials selection assignments, will receive an A in the course.

Course schedule: Lecture topics and reading assignments are subject to change. Test dates are firm.

day  date  topic                      reading assignment
M Jan. 11  L1   Course Overview     OGC A.3, B.1; C&R Ch. 1
T Jan. 12  Rc1  H1 assigned; Q1 given
W Jan. 13  L2   Introductory Atomic Theory I OGC §4.1-4.3
F Jan. 15  L3   Introductory Atomic Theory II OGC §4.4-4.5, 5.1, 5.3-5.4
M Jan. 18  Martin Luther King Jr. Day — no lecture
T Jan. 19  Rc2  H1 due; H2 assigned; Q2 given
W Jan. 20  L4   Atomic Structure & the Periodic Table; introduce CES EduPack OGC §5.5; §3.1
F Jan. 22  L5   Electronegativity; Ionic Bonding OGC §3.2-3.7, 3.10, 3.11; C&R §2.5-2.6
M Jan. 25  L6   Covalent Bonding OGC §3.7-3.8; C&R §2.6
T Jan. 26  Rc3  H2 due; H3 assigned; Q3 given
W Jan. 27  L7   Molecular Orbitals & Hybridization skim OGC Ch. 6
F Jan. 29  L8   Metallic Bonding; Secondary Bonding C&R §2.6-2.7; §12.5-12.6; OGC §10.2-10.3
M Feb.  1  L9   Cohesion in Solids; Lattice Energies of Crystals OGC 21.3-21.4
T Feb.  2  Rc4  H3 due; Q4 given
W Feb.  3  Rv1  Summary & Review for Test #1
Th Feb.  4  T1   Test #1 — 11:40 - 12:55 — locations TBA
F Feb.  5   No lecture
T Feb.  9  Rc5  T1 returned; H4 assigned; MS1 assigned; Q5 given
W Feb. 10  L11  Basic Crystal Structures C&R §3.1-3.5; §3.9; §3.16; OGC §21.2
F Feb. 12  L12  Compound Crystal Structures; Polycrystals; X-ray Diffraction C&R §3.6-3.7; §3.17-3.18; §3.20; OGC pp. 868-871; §21.3
<table>
<thead>
<tr>
<th>day</th>
<th>date</th>
<th>topic</th>
<th>reading assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Feb. 15</td>
<td>L13</td>
<td>Defects in Crystalline Materials</td>
</tr>
<tr>
<td>T</td>
<td>Feb. 16</td>
<td>Rc6</td>
<td>H4 due; H5 assigned; Q6 given</td>
</tr>
<tr>
<td>W</td>
<td>Feb. 17</td>
<td>L14</td>
<td>Introduction to Organic Chemistry I</td>
</tr>
<tr>
<td>F</td>
<td>Feb. 19</td>
<td>L15</td>
<td>Introduction to Organic Chemistry II</td>
</tr>
<tr>
<td>M</td>
<td>Feb. 22</td>
<td>L16</td>
<td>Polymer Structure &amp; Synthesis I</td>
</tr>
<tr>
<td>T</td>
<td>Feb. 23</td>
<td>Rc7</td>
<td>H5 due; MS1 due; H6 assigned; Q7 given</td>
</tr>
<tr>
<td>W</td>
<td>Feb. 24</td>
<td>L17</td>
<td>Polymer Structure &amp; Synthesis II</td>
</tr>
<tr>
<td>F</td>
<td>Feb. 26</td>
<td>L18</td>
<td>Noncrystalline Solids &amp; Semicrystalline Solids</td>
</tr>
<tr>
<td>M</td>
<td>Mar. 1</td>
<td>L19</td>
<td>Chemistry of Biological Materials</td>
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<tr>
<td>T</td>
<td>Mar. 2</td>
<td>Rc8</td>
<td>H6 due; Q8 given</td>
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<td>W</td>
<td>Mar. 3</td>
<td>Rv2</td>
<td>Summary &amp; Review for Test #2</td>
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<tr>
<td>Th</td>
<td>Mar. 4</td>
<td>T2</td>
<td>Test #2 — 11:40 - 12:55 — locations same as for T1</td>
</tr>
<tr>
<td>F</td>
<td>Mar. 5</td>
<td></td>
<td>No lecture</td>
</tr>
<tr>
<td>Mon.</td>
<td>Mar. 8</td>
<td>- Fri. Mar. 12</td>
<td>Spring break — no lectures</td>
</tr>
<tr>
<td>M</td>
<td>Mar. 15</td>
<td>L20</td>
<td>First Law of Thermodynamics; Calorimetry review OGC §12.2-12.3; C&amp;R §17.2</td>
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<tr>
<td>T</td>
<td>Mar. 16</td>
<td>Rc9</td>
<td>T2 returned; H7 assigned; MS2 assigned; Q9 given</td>
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<tr>
<td>W</td>
<td>Mar. 17</td>
<td>L21</td>
<td>Equilibrium and Spontaneous Change review OGC §12.5, 13.1, 13.5-13.7</td>
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<tr>
<td>F</td>
<td>Mar. 19</td>
<td>L22</td>
<td>One-Component Phase Diagrams; Chemical Equilibrium OGC §10.4-10.6; §14.1-14.2; eq. [14.4]; §14.6-14.7; C&amp;R §10.1-10.6</td>
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<tr>
<td>M</td>
<td>Mar. 22</td>
<td>L23</td>
<td>Two-Component Phase Diagrams: Continuous Solid Solutions C&amp;R §10.7-10.9</td>
</tr>
<tr>
<td>T</td>
<td>Mar. 23</td>
<td>Rc10</td>
<td>H7 due; H8 assigned; Q10 given</td>
</tr>
<tr>
<td>F</td>
<td>Mar. 26</td>
<td>L25</td>
<td>Recycling C&amp;R §4.9, Ch. 20</td>
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<tr>
<td>M</td>
<td>Mar. 29</td>
<td>L26</td>
<td>Thermal Properties of Materials C&amp;R §17.1-17.4</td>
</tr>
<tr>
<td>T</td>
<td>Mar. 30</td>
<td>Rc11</td>
<td>H8 due; MS2 due; Q11 given</td>
</tr>
<tr>
<td>W</td>
<td>Mar. 31</td>
<td>Rv3</td>
<td>Summary &amp; Review for Test #3</td>
</tr>
<tr>
<td>Th</td>
<td>Apr. 1</td>
<td>T3</td>
<td>Test #3 — 11:40 - 12:55 — locations TBA</td>
</tr>
<tr>
<td>F</td>
<td>Apr. 2</td>
<td></td>
<td>No lecture</td>
</tr>
<tr>
<td>M</td>
<td>Apr. 5</td>
<td>L27</td>
<td>Mechanical Properties I: Elastic Behavior C&amp;R §7.1-7.5; 7.11</td>
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<tr>
<td>T</td>
<td>Apr. 6</td>
<td>Rc12</td>
<td>T3 returned; H9 assigned; MS3 assigned; Q12 given</td>
</tr>
<tr>
<td>W</td>
<td>Apr. 7</td>
<td>L28</td>
<td>Mech’l Properties II: Plasticity &amp; Fracture C&amp;R §7.6, 7.8-7.10; 7.13-7.14; 8.17-8.18</td>
</tr>
<tr>
<td>F</td>
<td>Apr. 9</td>
<td>L29</td>
<td>Electrical Conductivity; Metals C&amp;R §12.1-12.9; OGC §22.5</td>
</tr>
<tr>
<td>M</td>
<td>Apr. 12</td>
<td>L30</td>
<td>Semiconductors C&amp;R §12.5-12.7; 12.10-12.13; OGC §22.6-22.7</td>
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<td>T</td>
<td>Apr. 13</td>
<td>Rc13</td>
<td>H9 due; H10 assigned; Q13 given</td>
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<tr>
<td>W</td>
<td>Apr. 14</td>
<td>L31</td>
<td>Electrical Properties of Ceramics and Polymers C&amp;R §12.16-12.20;OGC p. 939-940</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
<td>Assignment</td>
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<tr>
<td>Apr. 20</td>
<td>T</td>
<td>Rc14 H10 due; MS3 due; Q14 given</td>
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</tr>
<tr>
<td>Apr. 21</td>
<td>W</td>
<td>Rv4 Summary &amp; Review for Test #4</td>
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<tr>
<td>Apr. 22</td>
<td>Th</td>
<td>T4 Test #4 — 11:40 - 12:55 — locations same as for T3</td>
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<tr>
<td>Apr. 23</td>
<td>F</td>
<td>No lecture</td>
<td></td>
</tr>
<tr>
<td>Apr. 26</td>
<td>M</td>
<td>Rv5 Summary for Final Exam; last day of class; T4 returned</td>
<td>OGC §10.1</td>
</tr>
<tr>
<td>Apr. 29</td>
<td>Th</td>
<td>FE FINAL EXAM — 4:00 - 7:00 pm — locations TBA</td>
<td></td>
</tr>
</tbody>
</table>
EMSE 201 – Introduction to Materials Science & Engineering
12:30-1:45, M-W • White 324

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>phone</th>
<th>e-mail</th>
<th>office hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. De Guire</td>
<td>506 White</td>
<td><a href="mailto:mrd2@case.edu">mrd2@case.edu</a></td>
<td>M,T 2:45-4:45</td>
</tr>
<tr>
<td>graders: Hossein</td>
<td>113 White</td>
<td><a href="mailto:hxl246@case.edu">hxl246@case.edu</a></td>
<td>T,R 10:00-11:30</td>
</tr>
<tr>
<td>Lavvafi</td>
<td>368-4652</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Li-Ju Chen</td>
<td>124 Bingham</td>
<td><a href="mailto:lxc222@case.edu">lxc222@case.edu</a></td>
<td>M 9:00-12:00</td>
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</tbody>
</table>

Course Description: Introductory treatment of crystallography, phase equilibria, and materials kinetics. Application of these principles to examples in metals, ceramics, semiconductors, and polymers, illustrating the control of structure through processing to obtain desired mechanical and physical properties. Design content includes examples and problems in materials selection and design of materials to meet specified performance requirements.

Workload:

<table>
<thead>
<tr>
<th>Homework</th>
<th>10 @ 35</th>
<th>350 pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests</td>
<td>3 @ 100</td>
<td>300 pts</td>
</tr>
<tr>
<td>CES EduPack</td>
<td>3 @ 50</td>
<td>150 pts</td>
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<tr>
<td>Final Exam</td>
<td>1 @ 200</td>
<td>200 pts</td>
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<tr>
<td>TOTAL</td>
<td>1000 pts</td>
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Grading: *

<table>
<thead>
<tr>
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<th>Points</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt;800 pts</td>
</tr>
<tr>
<td>B</td>
<td>700-800</td>
</tr>
<tr>
<td>C</td>
<td>600-700</td>
</tr>
<tr>
<td>D</td>
<td>500-600</td>
</tr>
<tr>
<td>F</td>
<td>&lt;500 pts</td>
</tr>
</tbody>
</table>

Extra credit: 11th homework 1 @ 35 35 pts

*) If the final class average falls below 70%, a curved scale will be used, with the B-C borderline set at or near the average, and the range for each letter grade being about 1 standard deviation wide.


Course Blackboard site: Contains this syllabus, plus homework assignments, class averages, solutions to graded homework and tests from this year, solutions to tests from previous years, PDF versions of the course overheads, announcements, and links to other useful materials-related web sites.

Textbook web site: http://bcs.wiley.com/he-bcs/Books?action=index&itemId=0470125373&bcsId=3828

Contains extensive support material, including worked homework examples and additional chapters of the book.

Homework is due in class on the due date given on the assignment, which will typically be one week after the homework is assigned. Late homework will be subject to a penalty of 10% per day unless an extension has been arranged with Prof. De Guire at least 24 hours prior to the due date. No late homework will be accepted after a solution has been made available.

Students may consult with one another on the homework, but what is handed in must be each student's original, individual work. Work submitted by two or more
individuals that is identical or nearly so may be given zero credit.

Homework assignments will typically consist of numerical exercises and brief discussions of concepts. Their purpose is to illustrate, apply, and reinforce key topics — not to serve as dry runs for the tests.

Tests will be closed-book. Bring a calculator, pencils or pens, eraser, and a straight edge. A hand-written, 8.5”×11” formula sheet (one-sided for the tests, two-sided for the final exam) may be used, but no other form of stored information will be permitted. Each test will cover the lectures and reading assignments since the last test. Some of the test questions will be similar to the homework problems in style (i.e., short-answer; calculations; explanations of concepts). Some questions will require the student to apply previous material to new situations.

CES EduPack (http://www.grantadesign.com/education/index.htm) is a commercial software package to which students in EMSE 201 will have access for homework assignments in materials selection and design. Further details will be provided with the assignments.

Course Outline: Dates, topics, and reading assignments are subject to change. Test dates are firm. Topics listed in italics below will include subject matter that is not covered in the textbook but will be covered in the overheads and in lecture; this material will be fair game for tests.

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Required text reading</th>
<th>Assigned</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background</td>
<td>Ch. 2; 4.1-4.10</td>
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<tr>
<td>08/24</td>
<td>Overview. Basic crystallography. Bravais lattices.</td>
<td>1.1-1.6; 3.1-3.5; 3.10-3.14</td>
<td>HW1</td>
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<td>08/31</td>
<td>Crystal structures.</td>
<td>3.16-3.19; 3.6-3.7; 3.9</td>
<td>HW2 HW1</td>
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<tr>
<td>09/07</td>
<td>09/07: No class (Labor Day). 09/09: Structures of glasses and polymers.</td>
<td>3.21; 13.4-13.5; 4.11-4.12; 11.15-11.17</td>
<td>HW3 HW2</td>
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<tr>
<td>09/14</td>
<td>Defects in crystals. Diffusion in solids (start).</td>
<td>5.1-5.10 6.1-6.3</td>
<td>HW4 HW3</td>
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<tr>
<td>09/21</td>
<td>Diffusion in solids (end).</td>
<td>6.4-6.7</td>
<td>HW4</td>
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**TEST I: Wednesday, 09/23/09, 12:30 - 1:45 p.m.**

<p>| 09/28 | Elastic and plastic deformation. Slip. | 7.1-7.3; 7.5-7.6; 7.8; 7.11; 8.1-8.7 | HW5 |
| 10/05 | Strengthening mechanisms. Recovery, recrystallization, and grain growth. Friday 10/09: Hardness; impact testing. | 8.9-8.11; 8.12-8.14 7.16-7.18; 9.8 | HW6 HW5 |
| 10/12 | Mechanical properties of polymers. Binary phase diagrams. | 4.9; 7.13-7.14; 8.17-8.19; 9.7; 10.1-10.12 | HW6 |
| 10/19 | 10/19: No class (Fall break). 10/21: Precipitation hardening. | 11.10-11.12; 10.19-10.21 | HW7 |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Pages/Lecture</th>
<th>Homework</th>
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<tr>
<td>Friday 10/23</td>
<td>Fe-C alloys.</td>
<td>10.20; pp. 517-521</td>
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<td>10/26</td>
<td>10/26 &amp; 10/28: <strong>No class</strong> (Make-ups <strong>Fridays</strong> 10/09 &amp; 10/23).</td>
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<td>HW8</td>
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<td>10/28</td>
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<td>HW7</td>
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<tr>
<td>11/02</td>
<td>Processing &amp; properties of plain carbon steels.</td>
<td>11.5, 11.7, 11.8 (skim), 11.9</td>
<td>HW8</td>
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<td><strong>TEST II: Wednesday, 11/04/09, 12:30-1:45 p.m.</strong></td>
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<td>11/09</td>
<td>Corrosion. Oxidation.</td>
<td>16.1-16.2; 16.6-16.13</td>
<td>HW9</td>
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<tr>
<td>11/16</td>
<td>Electrical conductivity.</td>
<td>12.1-12.13; 12.16-12.17</td>
<td>HW10</td>
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<td>HW9</td>
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<td>11/23</td>
<td>Thermal properties. <em>Thermal stresses.</em></td>
<td>17.1-17.5</td>
<td>HW11</td>
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<td>11/30</td>
<td>Materials selection.</td>
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<td><strong>TEST III: Wednesday, 12/02/09, 12:30-1:45 p.m.</strong></td>
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<td><strong>FINAL EXAM: Tuesday, 12/15/09, 8:30-11:30 a.m.</strong></td>
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History 113—Introduction to Modern World History, MWF 11:30-12:20, Fall 2009

Professor Jonathan Sadowsky, jonathan.sadowsky@case.edu

Office Hours: Thursdays, 1:30-3:30, and by appointment, Mather House 204.

Teaching Assistants:

Anthony Andersson (anthony.andersson@case.edu, office hours TTH 10-2, Mather House 12)
Elizabeth Bly (lyzbly@ameritech.com, office hours MW, 2:00-3:45, SAGES Café)
Samuel Duncan (samuel.duncan@case.edu, office hours M 1:30-3:0, Mather House 12)
Norman Rose (norman.rose@case.edu, office hours, MW, 10-11, Mather House 12)

Course Objectives:

1. To develop critical skills for reading and analysis that will provide students with a foundation for further learning about history, politics, society, and culture.
2. To develop basic cultural and political literacy about the societies of the world, their interactions, and the dramatic changes that contributed to the formation of modernity.
3. To develop skills in expository writing and oral expression.

Requirements:

1) Attendance in class. There is no “textbook” in this class, and the basic factual and chronological background will be provided in lectures. Lectures are designed to complement, not duplicate, the assigned readings; students who miss lecture therefore miss much of the course’s content. Attendance in section is vital, and absences from section will influence the calculation of participation grades.

2) Prepared participation in discussion sections. Attendance and participation will count for 25% of the final grade. Meaningful participation in section should show evidence of having read, and thought critically about, the assigned readings. All students will receive a tentative participation grade mid semester.

3) 6 short papers (about 4 pages, or about 1,000 words). There are 12 assigned topics for short papers, so students may skip 6 of them. The short papers will count for 60% of the final grade, or 10% each.

4) An unspecified number of unannounced quizzes, based on material from lectures and readings. The quizzes will count for 15% of the final grade.
Please note: all students will submit the first short paper.

There is no final exam, term paper, or any other work due after classes end.

Books Ordered for purchase at the bookstore:

Adam Hochschild, *King Leopold’s Ghost*
Feng Jicai, *Ten Years of Madness: Oral Histories of China’s Cultural Revolution*
Steven Kinzer, *All the Shah’s Men: An American Coup and the Roots of Middle East Terror*
Sidney Mintz, *Sweetness and Power*
Lydia Chukovskaya, *Sofia Petrovna*
Samuel Huntington, *The Clash of Civilizations? The Debate*

Some additional required materials will be posted at the course’s blackboard site.

Schedule of Classes, Readings, and Assignments

Week One

No reading unless you want to get a start on next week’s…

Aug. 24—Introduction to the Course
Aug. 26—Dynastic China
Aug. 28—West Asia to the Rise of Islam

Week Two

Reading: Huntington, *The Clash Of Civilizations?*, essays by Huntington, Ajami, and Kirkpatrick, and rebuttal by Huntington

Aug. 31—Native American Societies
Sept. 2—India until the *Raj*
Sept. 4—Political Variation in Africa

Week Three

Film: “The Mission.” Open viewing of “The Mission” at a time and place to be announced. The film will be on reserve in Kelvin Smith after that.

Sept. 7—No class: Labor Day
Sept. 9—Discussion of Huntington: 1st short paper assignment due.
Sept. 11—European Expansion

**Week Four**

Reading: Mintz, *Sweetness and Power*.

Sept. 14—Discussion of The Mission; 2nd short paper assignment
Sept. 16—The Colonization of Latin America
Sept. 18—The Atlantic Slave Trade

**Week Five**


Sept. 21—Discussion of Mintz; 3rd short paper assignment
Sept. 23—Scientific and Industrial Revolutions
Sept. 25—The Enlightenment and the French Revolution

**Week Six**

Reading: Nehru, “British Rule in India,” “The Letter of Commissioner Lin to Queen Victoria”

Sept. 28—Discussion of industrialization and revolution; 4th short paper assignment
Sept. 30—19th Century Imperialism
Oct. 2—China and the West in the 19th Century
Week Seven

Reading: Hochschild, *King Leopold’s Ghost.*

October 5—Discussion of 19th Century Imperialism; 4th short paper assignment
October 7—Partition and Colonialism in Africa
October 9—The Congo, from Leopold to Kabila

Week Eight

Reading: Marx, “The Communist Manifesto,”
(http://www.anu.edu.au/polsci/marx/classics/manifesto.html); Lydia Chukovskaya, *Sofia Petrovna*

Oct. 12—Discussion of *King Leopold’s Ghost*; 5th short paper assignment
Oct. 14—The Rise of Feminism

Oct. 16—The Critique of Capitalism and the Russian Revolution

Week Nine

Film: “Gandhi.”

Open viewing of “Gandhi” time and place tba. The film will be on reserve in Kelvin Smith after that.

Oct. 19—Fall Break—No Class
Oct. 21—Discussion of *Sofia Petrovna,* 6th short paper assignment
Oct. 23—The Colonial Experience in India

Week Ten
Reading: Himmler, Verwoerd

Oct. 26 — Discussion of “Gandhi”; 7th short paper assignment
Oct. 28 — The Holocaust
Oct. 30 — South Africa — The Rise and Demise of Apartheid

Week Eleven

Reading: Excerpts from Peter Kornbluh, The Pinochet File (Excerpts to be announced).

Nov. 2 — Discussion of Himmler and Verwoerd; 8th Short Paper assignment due
Nov. 4 — Post-colonial Latin America
Nov. 6 — Our Man in Santiago: The US and Chile

Week Twelve

Reading: Ten Years of Madness.

Nov. 9 — Discussion of Kornbluh documents, 9th short paper assignment
Nov. 11 — The Chinese Revolution
Nov. 13 — The People’s Republic of China

Week Thirteen

Reading: Kinzer, All the King’s Men; Paul Berman, “Terror and Liberalism,” The American Prospect, October 22, 2001.

Nov. 16 — Discussion of Ten Years of Madness; 10th short paper assignment
Nov. 18 — The Making of the Modern Middle East
Nov. 20 — Our Man in Teheran: The US and Iran

Week Fourteen

Readings on Globalization and Neo-Liberalism, to be announced.

Nov. 23 — Discussion of Kinzer; 11th short paper assignment
Nov. 25 — The Fall of Communism
Nov. 27 — No Class — Thanksgiving Holiday
Week Fifteen

Nov. 30—The Neo-Liberal Era, Part 1
Dec. 2 — The Neo-Liberal Era, Part 2
Dec. 4—Final Section…12th short paper assignment

Class Policies:

1. **Professor Sadowsky** is the principal lecturer and the instructor of record. However, the teaching assistants for this course are experienced and highly qualified instructors, and the conduct of the course is a collaborative effort among the entire teaching staff. Section leaders have full authority over their sections, and the assignment of grades for their sections.

2. **Grading.** This course does not use a grading curve. A’s will be awarded to excellent work, B’s to good work, and so forth. We stress that a “B” means that the work is good; A’s will be reserved for work that rises to the level of excellence. In written work, “excellent” means a paper with a clear and well-defended argument, originality, and a minimum of stylistic, grammatical, and typographical flaws. Students who believe a grade on written work is unfair have the right to submit the assignment for re-grading. Re-submissions, however, will only be considered if accompanied by a written statement (in hard copy, not e-mail) from the student to the original grader explaining why he or she regards the grade as unfair. After the re-grading, if the student still believes the grade is unfair, she or he may ask to have the work re-considered by the Professor, but only after they have gone through the above process with the original grader. In section, participation is expected from ALL students, and students who do not participate in section can expect a grade significantly lower than what the grades on their written work would suggest. Participation in section will rise to the level of excellence if it is regular, and if it demonstrates both strong knowledge of the assigned reading, as well as thoughtful evaluation of the reading.

3. **Late papers.** Late papers are unfair to students who complete work on time, they undermine the sense of a shared learning project in the class, and they create chaos for the instructors, especially in a large class such as this. Students in this class also have a choice of which weeks they do writing assignments, so students with conflicts in some weeks may simply choose those weeks as their weeks to skip the writing assignment. For all of these reasons, papers are due—in hard copy, not by e-mail—at the beginning of class on the due date, and late papers will not be graded or awarded credit. E-mailed papers will not be accepted. The instructors reserve the right to grant extensions in
extraordinary circumstances, such as serious illness or family emergencies, but these decisions will be made on a case-by-case basis. Circumstances for which extensions will not be granted include, but are not limited to: computer problems, such as hard drive crashes or broken printers; work load due to other classes; and conflicts arising from jobs, or participation in extracurricular activities such as theater or athletics.

4. **Incomplete.** Incompletes will only be given in truly extenuating circumstances, and will not be given without a written request from the student explaining why the incomplete is necessary, and specifying a schedule for the completion of the work.

5. **In-Class Behavior.** Students are expected to be present, attentive, and prepared at all lectures and sections, unless excused by an appropriate note from the University Health Service or the Dean of Undergraduate Studies. In class, students engaging in activities unrelated to class may be asked to leave. Instructors will make every effort start classes on time, and finish on time. They will expect students to be just as courteous. Also, please turn off cell phones (and other objects that ring or beep) during class times.

6. **Plagiarism.** Plagiarism, whether from printed, unprinted, or digital sources, is a serious ethical violation, and will be dealt with severely. If you are uncertain what constitutes plagiarism, please speak with the teaching staff; ignorance of the meaning of the term is no defense. For a quick review, visit [www.plagiarism.org](http://www.plagiarism.org).

**Paper Writing Tips**

**Argument.** A good history paper combines clarity, logic, and evidence. It should make an argument which the reader can identify easily, and defend that argument with examples. If you cannot state your central argument in one sentence, you may need to work on it more. You should consider possible objections to your argument, but in the end explain why you think your point of view is more convincing. No history paper will get an "A" if it lacks an argument, even if it is a model of stylistic elegance and factual accuracy. In advancing your argument, you should always strive to be specific. A vague paper is a bad paper.

**Structure.** There is no single formula for the structure of a successful history paper, but the following is often a good one: 1) Start with an introductory paragraph that states the problem and your proposed solution. 2) Use the middle paragraphs to give the evidence that supports your view, explaining each time how the evidence does support
you. 3) Conclude with a final paragraph that re-states your argument in decisive language.

You should strive for leanness in every aspect of your paper. A good sentence lacks unnecessary words, a good paragraph lacks unnecessary sentences, and a good paper lacks unnecessary paragraphs. Adjectives and adverbs can often be cut; their use is often a sign that the writer has used an imprecise noun or verb.

Paragraphs need to be coherent. Each one needs a theme that separates it from the other paragraphs, and everything in the paragraph should relate to that theme.

**Style and Grammar.** Style and grammar count in this course. The number of possible stylistic and grammatical problems is large, but here we present fair warning on some common problems we do not want to see.

**The passive voice:** Very accomplished writers can use the passive voice effectively, but in most cases it weakens the clarity and force of an argument. This is especially true in history papers, where you should identify the agent making the action. "The peasants were oppressed" is not a strong sentence, because the oppressor is not identified: is it the central state, the landlord class, their own local leaders, the weather? If it is all of these things, that is all the more reason to identify them: "The weather, the state, the landlord class, and even the local chiefs conspired to oppress the peasants."

"Its" versus "it's." The most common grammatical error this instructor has encountered at CWRU is the confusion between the words "its" and "it's." "Its" is a possessive form, as in "Every government finds its own rationale for governing." "It's" is the contraction of "it is" as in "It's doubtful that a government can rule for long without a clear rationale." Since you should avoid contractions in formal writing, we should only see the possessive form in this class.

**Lack of agreement.** Be alert to the need for agreement of number between subject and verb: "A king taxes the people," and "Kings tax the people." Also keep tense consistent. Do not write, for example, "China was the dominant world power at the time. Its technology is the most advanced, and its people were prosperous."

**Ornate words.** In most cases, for example, "use" is better than "utilize." If you really believe "persiflage" captures your meaning perfectly, then utilize it. If not, use the simple word: "banter."
**Spelling and typographical errors:** By all means run your paper through a Spell-check program, but do not think you are done proofreading then; if you type "Excessive taxation lead the pheasants to revolt," your computer won't notice either of the errors in this sentence. An occasional typographical error is not a problem, but if your paper has many of them, it will influence your grade.

**Presentation.** Papers must be typed and double-spaced, with one-inch margins. Do not justify the right-handed margin. Pages must be numbered. Title pages, folders, and binders are not necessary.

**Need more help?**

Two excellent books on writing are Strunk and White, *The Elements of Style* and Schirtzer, *The Elements of Grammar*. Good writers read and re-read these books.
First Day, First Impressions: Orientation Seminar

“Above all, love your subject, love your job (teaching is the greatest job in the world), and make sure you convey that love and enthusiasm to the students in the classroom.”

~ Professor Michael Altschul, History

Seminar Description

This seminar will assist you in transitioning into your role as a graduate Teaching Assistant (TA) at Case Western Reserve University. We will discuss strategies for approaching the first few days with your students, review upcoming TA training opportunities, and learn about the University’s undergraduate student population.

Seminar Objectives

- To learn about UNIV 400A/B/C training
- To sign up international students for the Spoken English placement test
- To meet the Mentor TA team
- To discuss strategies for setting positive first impressions as graduate students and grading assistants
- To learn about specific student constituencies, i.e. international undergraduates and students with disabilities
- To learn about the demographic snapshot of the first-year students
- To be introduced to aspects of Cleveland living
Overcoming First-day Jitters

It is the first day of class. Are you nervous? Do not be afraid to admit it if you are. Remember that the students may also be nervous. The first day might be the one day you can guarantee that everyone sitting in the classroom is attentive and motivated. Recognize that this heightened tension gives you an opportunity—and take advantage of it. Below are some suggestions for calming yourself down.

- **Concentrate on your students and on the subject.** If you focus on the fact that you are nervous, you will stay nervous; if you turn your attention to more important matters, you may forget your apprehension.

- **Prepare yourself ahead of time.** Teaching is a kind of performance, and any performance benefits from rehearsal. Visit the classroom ahead of time. Make notes of what you want to say and go over them so nothing is forgotten. By practicing, you will make the events of the first class more familiar and less intimidating. Arrive at the classroom early to write necessary information on the board and to arrange desks as you want them when students start arriving.

- **Ensure that you are ready physically.** Get plenty of sleep the night before. As you walk to class, take deep breaths to eliminate tension. The more relaxed your body is, the more relaxed your mind will be. Remember to smile!

Making a Good First Impression

You may not be able to control what your students want out of your class or what your classroom looks like, or even what textbook you get to use. But you do have control over the first impression you give students. Within about the first seven seconds of your class, your students will form their impressions of you and your course.

- **Show that you are organized.** Fumbling for papers, losing your place in your announcements, and flubbing important details may only be the result of nervousness, but students may uncharitably think you do not know what you are doing. Allow yourself plenty of time before class to get papers and any details in order. Do not rely on your memory for everything you want to announce; write a list.

- **Decide how you want to be addressed by your students.** You may wish to begin with a more formal title, Ms., Mr., etc. You should also check to see how other TAs are addressed in your department.
• **Be yourself.** Do not let your preparation extend to planning the persona you project in the classroom. It is better for students to start out dealing with the real you. You can be approachable without being everyone’s best friend; decide where along the spectrum you feel the most comfortable.

• **Come in really ready for this class.** You are pursuing your academic discipline for a reason; let that reason govern your attitude, not the fact that you are overwhelmed with new projects or that you hate having to walk halfway across campus to find your classroom. Your enthusiasm may inspire students; your disinterest is guaranteed to turn them off. Furthermore, if you have assigned reading prior to the first day of class, be sure you have reviewed the material thoroughly.

• **Err on the side of firmness rather than laxity when it comes to course policies.** As you explain your attendance or grading policy, do not start qualifying everything with the kinds of exceptions you are willing to make. Start out being fair but firm, and students should rise to your standards. It is much easier to ease up a little when a student comes to you late in the semester with a real problem than it is to tighten up your expectations when students seem to be taking it easy in your course. As a side note, if students ask that you give them an extension on an assignment for personal reasons, ask them to speak with you privately during office hours rather than negotiating this extension in public.

**Introducing the Course to Students**

Ideally, students already have some idea of what the course will be like, or they would not have registered for it in the first place. But that does not mean they share your sense of what will happen or even have an accurate picture of what to expect over the semester. You will need to give an overview of the semester so that students know what to expect and are motivated to participate and learn. Take this opportunity to introduce your discipline, to highlight little-known facts about your subject, or to preview interesting class assignments.

**The business of the course**

On the first day, you will need to cover the following details. Most of them are probably included in your syllabus, but it cannot hurt to review them to make absolutely sure nothing is overlooked or misunderstood.

• **Introduce yourself.** State your name; spell it out on the chalkboard; explain how to pronounce it if it is difficult. Tell students how you prefer to be addressed.

• **Tell students where they can find you, and when.** Where is your office? What is your office phone number? Can students call you at home? What is your email
address? Attention to these details shows that you are approachable and that you want students to get in touch with you.

- **Get to know your students.** Have them tell you something about themselves. Make sure you know how to pronounce their names and whether anyone prefers to be called by a nickname; then practice calling students by name. You can also have students fill out an information sheet and use this to help familiarize yourself with their personalities and interests outside of classes. Engage your students in some sort of discussion. Studies show that students who do not speak during the first two weeks of class may not speak in class the entire semester. If you have access to the official roster on SIS, many, if not all, of your students’ pictures will be on the roster. Use this roster prior to the first week of classes to familiarize yourself with your class.

- **Distribute your syllabus and review it.** Explain any policies for attendance, grading, or deadlines. Go over the schedule of readings and assignments, and point out deadlines and special dates. Make sure everything is clearly explained.

- **Preview course materials.** Tell students where to find the text. Bring in a copy and show it to them; this strategy highlights the importance of your course reading assignments. Explain whether copies are in the bookstore, on reserve at the library, or available via photocopies in class.

- **Demonstrate Blackboard.** If you are using Blackboard this semester for distributing readings, collecting and returning homework and papers, and/or posting grades, do not assume that every student knows how to use Blackboard. Demonstrate how to log on and use this instructional tool.

- **Ask if there are any questions.** Wait a few minutes before moving on to your next activity. Treat all questions with respect; even questions that seem silly to you may pose a real quandary to someone else. Your students are watching to see how you will handle questions. Your initial response will determine your students’ level of response in the rest of your classes.

**The fun part of the course**

Once you have reviewed the syllabus and other such details, you should still have a significant amount of time left. Use the time wisely to set the tone for the rest of the semester. Do not be tempted to release class early; students will feel that class time is not important. Instead, consider the following activities to round out your first day.

- **Consider using an icebreaker activity if your class has no more than 25 students.** Students will do the icebreaker as long as you model it first. Often, you can find an
activity or create an activity that relates to your course content. Then, you can use the icebreaker both to launch a discussion of a course topic or theme. Suggested icebreaker activities appear later in this document.

- **Teach a real class.** Prepare a short introductory lecture, exercise, or discussion to get into the subject matter. Choose material that allows interaction so students can actually get involved. After all, they are in your classroom because of some degree of interest in the subject; take advantage of that preliminary interest to draw them in even further.

- **Start motivating students immediately.** Students are motivated to perform well in a course when they have a clear sense of how the course relates to them personally. They will maintain motivation if they experience success. This concept is important to remember. Finally, students must feel that the time spent on the course is worth it. You may devise some sort of class activity that taps into what students may already know about the course content. For example, you may ask them to respond to a short piece of text, a problem, a controversial topic, or an issue that allows students to connect what they already know with some information that serves as an entry point to the course.

- **Explain the relationships among class activities, homework assignments, quizzes, and exams.** Even your most talented students, especially if they are first-year students, may expect that much of their learning will take place in class and/or that you or the faculty member will tell them what is important to learn. If the weekly assignments are long and/or no mention is made of the material in class, students may quickly become discouraged. They may attempt to read all of the assignments with the same level of intensity and feel overwhelmed. Or they may read just before the exam. Therefore, you should offer some guidelines for how to approach the reading assignments including these suggestions:

- **Ask for feedback at the end of your first class.** Use a one-minute paper, which is an informal assessment process. You can ask three questions: What went well? What did not go well? What can be enhanced? You can use these questions or some variation periodically throughout the semester or even every day. For instance, you can ask students to write down any lingering questions they may have about the material you are currently covering. Or you can ask them to write a brief summary of the main points covered that day in class. Both will help you as you plan the next class. The key, however, is to address issues so the students see that you are listening to their feedback. You do not need to follow their suggestions, but you can spend a few minutes giving your response. For instance, your students may tell you that they did not like weekly quizzes. In your next class, take a few moments to
review why you feel weekly quizzes will help your students master the course content.

- Consider these three aspects of student motivation from the very first day of class: be clear about the value of this class for students, show that you expect them to succeed, and demonstrate how their performance will be rewarded.

The problem of drop/add

Of course, no matter what you do on the first day, you will have to consider the influence that the two-week drop/add period has on all classes. In many courses, students will be shopping around and may appear or disappear unpredictably. In other cases, students have encountered delays in resolving financial issues or getting permits to take your class, or they are waiting for spaces to open and may arrive a day or two late.

Do not let your first classes be held hostage to this unpredictability. Otherwise, you will lose people who think your course will never get going. Start teaching and assigning homework. However, do not steamroller through those first days, either. Be prepared to catch-up latecomers as much as reasonably possible on the material that they missed during the drop/add period. Do not spend time reviewing for those who have entered the class later than the first day of class. Instead, ask students to stay after class or to come to your office hours to review the syllabus and go over the details of the semester.

Icebreakers

You may scoff at the idea of using icebreakers or activities to introduce the members of your class to each other and to you. Perhaps it sounds too silly for a serious academic class at Case Western Reserve University. You may worry that your students will not take you seriously if you refrain from launching into a complicated lecture the first day of class. Or you may think that the students—particularly the first-year students—have already had enough icebreakers during orientation.

However, you can use an icebreaker to do just what the name implies—break the silence that is always there when you begin a new class. Your objective the first day of class is to have everyone say something. If students fall into the habit of not talking in class, even the first day of class, they may remain silent for the rest of the semester. If you have a small enough class (about 25 students or less), you also want everyone (including you) to learn everyone’s name. That takes a while to do. But try to have their names mastered by the end of the first week of class.

Whatever icebreaker you decide to use, ask students to say the name that they would like to be called at the beginning of their response. Be sure that everyone can hear the responses. You may want to respond with a comment back to each response if there is enough time.
You can be as serious or as whimsical as you like when creating an icebreaker. But the key is to model the icebreaker by going first. Then allow students to decide the order that they would like to go when they are responding. Some students may need more time to determine their response. It is all right to skip a student and come back to that person at the end.

**Suggestions for icebreakers**

You can rely on the old standard icebreaker of pairing students to first introduce themselves to each other and then to the larger group. However, why not be original and create an icebreaker that relates to the course or to the content that you are presenting the first day or first week? For instance, if you are teaching a writing class, you might ask students to describe the type of books they like to read and their feelings about writing. If you are supervising a chemistry lab, you might ask students to describe their previous experiences in a laboratory. The information your students provide during an icebreaker may help you to understand their background and perceptions of the course. While students respond, record their names and a brief comment about what they said. Study this information to demonstrate you know their names by the next class session.

**Learning students’ names**

To help learn students’ names, ask them to complete “name tents” (sheets of notebook or printer paper folded as if it is about to be placed into an envelope, with names clearly printed on one side) for the first week if the class or lab is small enough. Bring paper to class in case they come without paper the first day. You can either collect the name tents after class or ask the students to bring them to the next class. By the end of the first week, you should know the students’ names.
Additional Resources

Print


Electronic


Inclusion: Core Seminar

“Whenever I hear people saying, ‘diversity is not an issue’—it is the biggest issue, I think, in creating a learning environment.”

Professor Susan Case, Weatherhead School of Management

Seminar Description

This seminar will assist you in identifying the cultural assumptions you may bring to the teaching process. We will discuss strategies for creating a welcoming and accommodating learning environment for all students in your classroom.

Seminar Objectives

- To understand the concept of unconscious bias and how your unconscious bias(es) may impact your perceptions of students and your planning process for your TA role(s).
- To use awareness of unconscious bias to decide effective ways to provide a welcoming and appropriately accommodating response to all students, especially international students, underrepresented students (African American, Latino, Pacific Islander, and Native American), and students with specific religious perspectives.
Diversity at Case Western Reserve University (CWRU)

Students and faculty at CWRU come from all over the United States and from many countries. They represent ethnic, religious, sexual and socioeconomic minorities, as well as dominant groups. You may find that your classroom includes students from Asia and Africa, students from small towns in Ohio, students from large Midwestern cities, students who are first-generation Americans from European families, students who are the first in their families to attend college, and older students returning to college after a career, just to name a few. You might teach students who are traditionally under-represented in your discipline or in college itself. The diversity in your classroom presents an opportunity for enrichment; the more diverse your students are, the more all of you have to learn from one another.

Challenges, however, can accompany great opportunities. As an instructor, you have an obligation to sustain a classroom climate that is welcoming to every individual you teach. Of course, you must disdain overt discrimination on the basis of race, religion, age, sex, disability, sexual orientation, or national or ethnic origin, as described in Case Western Reserve’s non-discrimination policy. However, you must also be alert to subtle conflicts that may offend or discourage members of the campus community. The following guidelines will help you foster a classroom climate that is conducive to everybody’s learning.

Intercultural Competency as an Inclusive Teaching Strategy

As members of the CWRU community, we all bring varying perspectives based on our personal backgrounds and beliefs. All of us within our campus community should strive to enhance our intercultural competency as we collaborate and learn from each other inside and outside of the classroom. In recognition of the complex cultural make-up of our students, we should treat each student as an individual. As we become acquainted with our students, they will decide what to share about their life stories.

Ender and Newton (2000) suggest that interculturally competent individuals are open to experiencing perspectives that are different from their own because those individuals understand that a truly global community is comprised of a staggering number of varying viewpoints. To foster an inter-cultural environment, we should strive to “accept … [our] own cultural programming, appreciate personal differences without making negative judgments and refrain from indiscriminately applying stereotypical information and over generalizing secondhand information to all … groups” (p. 50).

Additionally, Ender and Newton offer principles that are of use to those of us in educational settings with a diverse student body. These principles provide a guide for fostering an open and comfortable atmosphere for students as they work towards mastery of the course objectives:
Ender’s and Newton’s Principles

- “All assumptions are cultural,” (p. 76) meaning that we tend to filter our daily encounters through our life experiences and that if we do not intentionally become more flexible, we may lose the opportunity to learn from others who have different cultural assumptions.

- “It is necessary to suspend judgment temporarily” (p. 76) because without putting aside our natural tendency to judge our experiences, we may not acquire accurate information through our interactions.

- “Context and content both matter” (p. 77) as we process experiences. If we only assess others’ reactions and statements without attempting to understand the explicit and implicit context for this behavior, we may not truly understand the experience or increase our intercultural competency.

- “Becoming comfortable with discomfort is both possible and necessary” (p. 77) in order to ultimately increase our intercultural competency. If we withdraw each time that we find ourselves slightly uncomfortable, we will not grow. As Enders and Newton add, “[d]evelopmental growth emerges out of some discomfort or dissonance, and the resolution of the discomfort promotes growth” (p. 78).

- “Curiosity and deliberate inquisitiveness improve information accuracy” (p. 78). If we are consistently asking ourselves questions about what we observe, we are more likely to base our responses on these observations rather than previously learned behavior that may be based on a less than diverse environment.

Ender and Newton encourage those interested in intercultural competency to realize that developing the ability to interact successfully in a global community requires that we embrace this lifelong learning as both “developmental” and “experimental” (p. 78). In other words, we must accept that we are always moving along this journey of competency, and we must be willing to put ourselves in new settings that may be initially uncomfortable.
Strategies for Fostering an Inclusive Academic Setting

Preparing for and Conducting Class
Make sure you have high expectations of everyone.

Apply and enforce those expectations uniformly. Avoid asking under-represented students easier questions than you ask of non-minorities; all of your students will see this strategy as condescending and will resent your implied attitude.

Take the time to learn how to pronounce every student’s name.

Be sure they know how you would like to be addressed and can pronounce your name. Use good eye contact; be friendly both in the classroom and when you see students on campus.

Divide your time and attention equally among all students.
If you stay after class to talk to students informally, make sure all students who are interested have the opportunity to chat. Watch for students who are shy; they are there for reasons just as valid as those of the more assertive students. Make sure you have attended to everyone who stayed after class. One way to do this is to ask students with lengthy questions to wait while you attend to more quickly resolved issues. In class, call on under-represented students with the same frequency you call on everyone else. Spending disproportionately more time with any single group of students, regardless of status, will be seen as favoritism.

Do not assume that everyone in class is heterosexual.

Demonstrate an attitude of uniform tolerance and refrain from any disparaging remarks toward gay, lesbian, transgender, transsexual, and bisexual students. Many of your heterosexual students would also be offended by such sexist comments.

Do not assume under-represented students will provide a “minority” perspective.

Not all women are devotees of feminist studies, nor are all African-American students avid readers of Toni Morrison and James Baldwin. Such assumptions suggest that under-represented students are unreasonably uniform in their perspectives and that non-minority students need not be interested in a diverse realm of knowledge. Respect the individual interests and outlooks of all the students in your class rather than pigeonholing them by race, ethnicity, or gender.
Avoid bias in your own speech and teaching.

Use visual aids that represent people in all their diversity; use examples that do not assume stereotypical roles or behaviors. For example, avoid hypothetical cases in which all physicians are men or all nurses are women, or all professionals are white. Avoid the generic “he;” use equal numbers of men and women in examples, or say “he or she.”

Choose reading materials that are free of bias.

If the text you must use includes stereotypical examples or descriptions, acknowledge them in class discussion and suggest how the information could have been depicted without bias; if you simply ignore them, the students may think you find them acceptable.

Ask questions in a positive way.

For example, ask, “who can give me the first step of the answer to number 14?” rather than “is there anyone who did not understand number 14?” Answering the latter question requires a student to risk self-humiliation; answering the former encourages volunteering with confidence.

Be respectful of older, non-traditional students.

It is increasingly common for adults to return to college during or after a lengthy career to pursue the studies they always wanted or to prepare themselves for career changes or promotions. Some will be very confident because of their maturity and experience, while some will be intimidated by the youthful college environment. Non-traditional students can be an asset to class discussion because of their experience and judgment, but resist the urge to conduct all your discussion with them while less experienced students watch. Maintain fair standards of participation and achievement for everyone.

Monitoring Student Interactions

Be alert to patterns of discussion or interaction that reflect bias.

Take steps to correct those patterns. For example, you may notice that a male student ignores a female student’s remark but responds affirmatively to a male student’s similar comment. Or you may notice that some students are more readily interrupted than others in class discussion. If these things should happen, return the discussion to the comment that was overlooked, or insist that everyone listen without interruption. Point out these patterns and discuss them in a non-hostile manner.
Remember that people have different preferred conversational styles.

These styles often (though not always) correspond with gender or ethnic status. Some students may feel a cultural or social pressure to remain quiet in class or to limit their participation so that they do not take up more than their perceived fair share of class time and attention. Vary your classroom approaches to accommodate all of these needs. For example, hold a brainstorming session one day to encourage contribution without judging, while structuring a competitive debate on another day, or alternate between full-class discussions and small groups which may encourage quieter individuals to speak up.

If you divide your class into small groups, make diverse groups.

Assign individuals into groups which allow a mix of personalities and styles rather than just letting students gather with their immediate neighbors. Allow everyone the chance to work with people with whom they may not usually interact. If you have a cluster of confident, talkative students, divide them up among the groups and encourage them to help draw out more reticent students.

Refuse to tolerate biased or derogatory comments in the classroom.

If students should make any such comments, quickly point out that such remarks are inappropriate; suggest alternative ways to approach the subject, if possible. If you simply ignore such remarks, students will think you find them acceptable.

Teaching International Students

Many TAs may feel that they lack the training needed to teach international students. The following are guidelines for accommodating the needs of international students in your classroom in an effective manner.

Early on in the semester, assess the cultural climate of your classroom.

If international students are in your class, let them know that you are available to them. Encourage them and other students in the class to inform you if any part of the course is making them uncomfortable, or if they need clarification on the material. Consider asking students to respond to the following questions (adapted from Cones, Janha, and Noonan (1983)):

- Does the course instructor treat students in the class equally?
• How comfortable do you feel participating in class? What makes participating easy or difficult for you? If you find participating to be difficult, how could the TA accommodate you?
• In what ways does your background as an international student affect your interactions with the TA of this class or with your fellow students?

You can often gather this information by asking your students to write you an informal letter in which they can describe their academic history and anything that they feel you should know in order to your best teaching for them.

**Do not assume that all of your students understand typical American classroom culture.**

Some international students may be used to a more formal classroom atmosphere than you may wish to use. Instead ask students to help you set up the ground rules for how your class, lab, or tutorial session will work. This approach encourages active participation while at the same time, creates an icebreaker that produces some meaningful work.

**Become more informed about the history and culture of groups represented in your classroom.**

You do not need to become an expert in this topic, but you should attempt to learn more about your students’ cultural background(s). You may consider engaging your students before or after class, asking if what you have learned is correct. For the native speakers in your class, you might also ask them about their home state and how living there is similar or different from living in Cleveland.

**Understand that international students (like other students) may learn best if they have both oral and written information that summarizes the key points in a lecture, assignment directions, and/or announcements.**

In this sense, you do not need to treat international students any differently than native speakers in your class. When giving a lecture, make certain to have a balance between audio and visual aspects of your presentation. Visual components could take the form of a PowerPoint, handouts with key terms from the material, and an outline or diagram on the board.

**Convey the same level of respect and confidence in the abilities of all students in your classroom.**

Research has shown that many TAs unconsciously base their expectations of students on such factors as socio-economic status, language proficiency, race, ethnicity, gender, sexuality, and
appearance. Although this point might fall into the broader category of diversity, it is especially true for international students. For example, an international student who is reluctant to speak in class might have exemplary ideas to contribute when given the opportunity to write about those ideas. Instead of allowing that student to put forth those ideas only in writing, encourage the student to speak about those ideas in class. Most importantly, set standards of excellence for your entire class, requiring them to work diligently and to achieve high standards.

Avoid “protecting” any group of students from your class.

Do not be reluctant in offering constructive criticism to international students, giving them an advantage over other students in your class. International students will likely assess that you are giving them an unfair advantage. For example, a TA who gives international students extra time on tests believes this is a considerate action. But international students may feel patronized, while native speakers in the class might resent the preferential treatment.

Avoid praising international students’ work too emphatically in relation to how you are grading other students’ work.

One tendency among TAs and Professors is that they sometimes exaggerate positive comments on the work of students who they suspect are less capable of good work. For example, an international student may complain about her TA repeatedly deeming her papers to be exemplary, when other students in the class are doing equally well, if not better. The TA’s excessive praise, although intended to be encouraging, might make a student feel uncomfortable and singled out.

Aim for an inclusive curriculum.

You should use texts and readings that reflect a pluralistic society, including new scholarship and research about previously underrepresented groups.

Emphasize the value of considering different approaches and viewpoints.

Use classroom discussions to help all students in your class to appreciate how one’s premises, observations, and interpretations are influenced by social identity and background.

Clearly indicate to your students that you value all comments.

Students need to be comfortable with you and their peers to advance and defend their opinions. Avoid proclaiming your own opinion during a debate, which might silence students in your classroom who would otherwise counter that opinion. If, however, certain groups of students are monopolizing the conversation, make certain to call upon other students who seem reluctant to participate.
Reevaluate your pedagogical criteria for teaching in a diverse setting.

For many TAs and Professors at colleges and universities, the exemplary student is one who contributes to class discussion and challenges opinions. For some students, including international students, this type of classroom behavior is not exemplary and is perhaps even rude. Recognize that this type of cultural belief might cause some international students to be reluctant in asking questions or participating. The challenge in this scenario is to strike a balance between verbally assertive students and those of other styles and expressions of learning.

Address distasteful remarks directly and immediately.

You might be tempted to ignore such remarks, but you should confront them. Explain why a comment is offensive or insensitive, and that such discriminatory commentary is not acceptable.

Be sensitive to students whose first language is not English.

International students in your class have likely taken English proficiency tests, but may still struggle somewhat with the English language. Avoid correcting spoken English during class, as this may embarrass the student in front of his or her peers. But for homework, papers and exams, it is to the benefit of the student for you to offer corrections in grammar. You can also refer them to the Writing Resource Center or the SAGES Peer Writing Crew; both groups have been trained to work with writers for whom English is not their first language.

Encourage students to come to your office hours or engage them in conversation before or after class.

When students become comfortable speaking with you informally, they are likely to participate more during class. Meeting with students individually can also provide an opportunity for you to speak about their progress or for them to voice their concerns about the class.

Provide opportunities for all students to become acquainted with one another.

This could involve something as simple as a small-group discussion during class, or more extensive group projects. If possible, ensure that the small-groups consist of a diverse array of individuals.

Working with Students with Disabilities

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1991 protect students with disabilities from discrimination and establish the basis for the provision of reasonable accommodations in order to fully participate in the programs and services of the
University. The student’s process of securing accommodations begins at Educational Services for Students (ESS).

ESS is the resource center for students with disabilities. Students requesting accommodations must submit documentation meet with Susan Sampson, ESS Associate Director for Disability Resources. Upon a determination of the appropriate accommodations, the student will be requested to notify his/her instructors of the approved accommodations. The student will present an official memo from Disability Resources.

The student and the faculty member or TA may collaborate and establish methods for implementing the specified accommodations. At times, the evaluation methods might require some modification for the student with a disability. Though all students are expected to demonstrate their mastery of the course content through the completion of assignments and examinations, a faculty member’s or TAs methods of teaching and evaluation should be nondiscriminatory. Students with disabilities are expected to meet the essential components of the course requirements.

ESS also assists faculty and TAs in providing reasonable accommodations to students. For instance, ESS may assist by administering tests and examinations for first-year students requiring extended time, a quiet space, or assistive technology. Additionally, Disability Resources can assist students in obtaining auxiliary aides. Within ESS, the Plain Dealer Electronic Learning Center (PDELC) offers an array of assistive technology enabling students with disabilities to access Case Network and the Internet. Finally, students with disabilities have access to all ESS tutoring programs, as well as individual academic counseling and self-advocacy training offered by the ESS professional staff.

The following guidelines will assist you in working with students with disabilities:

- Contact Susan Sampson in ESS if you have any questions (susan.sampson@case.edu or (216) 368-5230). The final responsibility for the provision of academic accommodations belongs to the instructor. However, ESS is prepared to assist you in this process.

- Talk with the student as early as possible. Outline your method of teaching the course, and try to work out solutions to any problems.

- Do not assume a problem exists or that a certain arrangement will address a problem without discussing your concerns with the student. You might waste time and energy effecting a well-meaning but futile action.

- Be flexible and open. If one method isn’t working, be willing to try something else.

- Do not try your hand at counseling related to the disability itself, unless you happen to be an expert in this area. Your student knows what will and will not help. He or she
has adapted to life with a disabling condition.

- Be sensitive to the student’s standing among his or her peers. The student is the only one that can decide to disclose this information. Faculty should not disclose the student’s disability to other faculty or students.

- Consider adding the following statement regarding disability accommodations to your syllabus: *Students with disabilities at Case Western Reserve University may be eligible for academic accommodations. If you need accommodations, please schedule a confidential appointment with me so that we can discuss your needs. If you have not done so already, please be sure to also contact the office of Disability Resources in ESS, Sears 470: [http://studentaffairs.case.edu/education/disability](http://studentaffairs.case.edu/education/disability)*

Disability Resources has a number of one-page documents that provide additional information about specific disabilities as well as a manual that offers more information about how accommodations are provided. See the website for this information.

### Campus Resources for an Inclusive Educational Setting

A number of campus offices will serve as resources to you as you learn to work with your students:

- The Office of Multicultural Affairs, Sears 450, phone 216-368-2904
- International Student Services, Sears 210, phone 216-368-2517
- The Office of Inclusion, Diversity, and Equal Opportunity, Adelbert, 310, phone 216-368-8877

### Campus Assistance with Linguistic Competency

ESS along with International Student Services (ISS) offers two programs that may be of assistance for students who have some spoken-English challenges:

ESS offers a presentation seminar series for students who want to enhance their delivery of classroom interviews. See this website for reservations: [http://studentaffairs.case.edu/education/resources/presentation.html](http://studentaffairs.case.edu/education/resources/presentation.html)

ESS and ISS are co-sponsoring a conversation group for international students hoping to increase their language proficiency. For information about group meeting times, contact Elise Geither, Assistant Director for Spoken English, at elise.geither@case.edu or (216) 368-3790.
Work Cited


Additional Resources

Print


Electronic


Academic Integrity: Core Seminar

“For exams I make my students sign an honor statement. ‘On my honor as a student I have neither given nor received help on this exam.’ And sometimes I’ll leave the room…with a smaller upper-division class it makes a difference. They feel they have something to lose if they cheat.”

~ Professor Cather Simpson, Chemistry

Seminar Description

The office of Undergraduate Studies, along with the Academic Integrity Board, will present the ethics policies of Case Western Reserve as they apply to you as a graduate student and TA. The undergraduates from the Academic Integrity Board also will share their perspectives as students and the ethical challenges they face daily.

Seminar Objectives

- To learn about campus policies regarding academic integrity
- To discuss ways to implement these policies within your TA role(s)
- To discuss ways to plan courses
Ethics and the Academic Community

The following statement of the ethical standards of Case Western Reserve University is taken from the Handbook for Undergraduate Students:

Universities seek to preserve, disseminate, and advance knowledge. At Case, as elsewhere, we recognize that to fulfill these purposes requires a norm of expected conduct shared by all in the University community, governed by truthfulness, openness to new ideas, and consideration for the individual rights of others, including the right to hold and express opinions different from our own.

The University’s mission rests on the premise of intellectual honesty—in the classroom, the laboratory, the office and the solitary examination desk. Without a prevailing ethic of honor and integrity not only in scientific pursuits but in all scholarly activity, the very search for knowledge is impaired. In these respects, each of us—especially but not exclusively faculty—must regard oneself as a mentor for others.

These principles we strive to uphold make it possible for the larger society to place trust in the degrees we confer, the research we produce, the scholarship we represent and disseminate, and the critical assessments we make of the performance of students and faculty, as well as judgments of staff and administrators.

To safeguard the standards on which we all depend, each of us must therefore accept individual responsibility for our behavior and our work and refrain from taking credit for the work of others.

The culture of a university also requires that the rights of all be protected, particularly by those entrusted with authority for judgment of the work of others.

The University, being a human community, is subject to human failings, ambiguities, and errors. It is therefore the responsibility of the bodies regulating the affairs of faculty, students, and staff to maintain processes for judging and resolving instances where these principles may have been violated. However, all such systems depend for their effectiveness, in turn, on the acceptance of common norms of conduct—the ties of trust which bind the university community together. (p. iii)

The above statement represents a positive approach to the question of academic honesty (and, by implication, academic dishonesty). Rather than espousing a philosophy which views cheating as inevitable, and policing and punishment its only treatments, the University has chosen to set forth a philosophy of honesty, integrity, and trust. This attitude should govern your approach to academic honesty in the classroom. Certainly, over the course of your teaching career you will encounter students who work dishonestly, who try to get away with as much as they can without getting caught; but much more often you will have the opportunity to
demonstrate by example an ethical pursuit of knowledge. Announce and enforce positive expectations of honesty, and you will inspire students’ attitudes as well as their conduct.

However, this does not mean you should be unaware of the ways in which academic dishonesty can arise in the classroom or unprepared to deal with cases of cheating. The following sections outline different kinds of academic dishonesty and provide some ideas about how to understand, prevent, and punish them.

**Academic Dishonesty and How to Prevent It**

All kinds of deliberate academic dishonesty share one basic motivation. The student wants to get a good grade and has determined that there is an easier way to secure that grade than applying individual effort. Some students may simply have decided to take the easy route rather than earning grades; others may be very driven to succeed but afraid they won’t be able to earn a high grade no matter how hard they try. We all experience the temptation to take short cuts or the fear that our work won’t be satisfactory; but whatever any student’s particular motivation may be, it’s clear that he or she has lost sight of the true purpose of an education and has decided that claiming credentials is more important than mastering the knowledge those credentials are expected to certify.

There are also students who inadvertently commit acts which may be perceived as cheating. This can happen when the expectations for an assignment are not made clear, or the student has failed to comprehend them. For example, a student may ask a friend whose programming skills are better to help improve a computer program, when the goal of the assignment is for the student to work without assistance. The professor might think the student has “cheated” by violating the spirit of the assignment, when the student thinks he or she has consulted with a tutor. Thus you should explain your expectations clearly, including how much collaboration is permissible or what devices such as calculators or spreadsheets are to be used in the completion of an assignment.

One of the first things you can do to discourage academic dishonesty is to get to know your students as individuals and build a rapport with them. If students regard the class as an academic community in which everyone has mutual expectations of ethical behavior, a climate of trust will be encouraged, and students will be less likely to violate that trust. Also, the better you know your students and the work of which they are capable, the more readily you will be able to identify anomalous exams or papers which may be a sign of cheating.

**Plagiarism**

Plagiarism occurs when a writer presents the work of someone else as his or her own. This may range from sloppy citation practices which obscure the line between a student’s own ideas and those borrowed from others, to careless assumptions about what is and isn’t common
knowledge, to full-fledged presentation of borrowed, stolen, or purchased papers written by someone else. The internet provides many opportunities to plagiarize; cutting and pasting without citation from internet sources and downloading complete papers from sites like "schoolsucks.com" is becomingly increasingly common. Students (and some faculty) may also be unaware that submitting the same paper for two or more courses without consultation with the instructors and without substantial revision also constitutes plagiarism.

Students may be tempted to plagiarize when working on an assignment which challenges their knowledge of the subject. Research may produce large amounts of information to draw upon, most of which is written gracefully and presents interesting ideas in words the student feels cannot be improved upon. Remind the student that finding the information is only part of the effort of the writing assignment; the work is not complete until the student has understood and built upon that information, which requires putting the concepts into the student’s own words and proceeding to draw inferences and conclusions. Make sure your assignments require both components.

To prevent plagiarism, make clear what standards of attribution are to be used when you assign written work. Point students to a style guide if possible; provide examples of acceptable and unacceptable use of sources. Make research writing a process that requires interim submissions of work (i.e. thesis statement, bibliography, first draft) for review and comment. Or design assignments which rely on the student’s own ideas and knowledge rather than on research, and so are difficult to plagiarize. Be aware, too, of common sources for previously written papers; these include professional literature in your discipline (from which students may copy, unaware you have read them), national firms which advertise in magazines and with flyers on campus, student stockpiles of “paper files,” and numerous sites on the World Wide Web. Familiarize yourself with these sources and let your students know you are aware of them. (Many faculty now employ “Google searches” on key phrases or paragraphs to check for unattributed ideas or sources.)

Be careful with the graded work you return. Do not leave graded examinations or papers in the hallway outside your office door; it’s a violation of student privacy as well as an invitation to theft and reuse. Keep copies of student papers in a safe place so that you can consult them if a subsequent paper sounds disturbingly familiar. If you periodically clear old work out of your files, make sure you dispose of it safely by destroying it or removing it from campus rather than tossing it intact into recycling bins in the hallway.

Cheating on Exams

In exam rooms, students may cheat using the simple expedient of glancing at a fellow student’s paper. Other forms of exam cheating may include hiding slips of paper with answers or formulae in clothing or hats, using calculators in violation of the exam’s policies, exchanging text messages on cell phones or beepers, or obtaining an exam’s answers beforehand and
memorizing them to fill in on the paper. Students who do poorly on exams may also attempt to alter their papers, then bring them back to the professor or TA claiming an error in grading.

**To prevent cheating, arrange examination seating so students cannot easily see one another’s papers or pass information around.** Ask students to keep all extraneous materials at the back of the room or at the ends of each aisle. If you must seat students close together, design several examination sheets and distribute them randomly. And be absolutely clear what materials students are permitted to use during the exam, such as calculators or textbooks. It is strongly recommended that you require students to turn off cell phones and pagers and forbid them to take out or answer their phones. Remain in the room the entire time, walking up and down the aisles if the room is too large for you to see easily what students are doing. (This is a good idea anyway; students may have valid questions during the test and you should be available to answer them.) Don’t keep using the same exam term after term; it’s too easy for students to share past tests. Instead, design new exams frequently. Keep copies of your exams safe so that students won’t have access to them beforehand; don’t leave them out on your desk or put drafts in recycling bins, as students who visit your office may come across them. If it’s practical, make copies of graded exams and keep them in a safe place so that you have something to refer to if you suspect a student has altered an exam sheet.

**Falsifying Data or Results**

Laboratory or other research work may be falsified by students who, frustrated with their inability to get the desired results, fill in idealized numbers or made-up data instead of recording what actually took place.

**To prevent falsification of data, consider requiring students to sign a pledge affirming that all work is their own.** Many departments have such pledges as part of their assignments; they can discourage cheating by making students aware of the ethical norms of your discipline and more conscious of their own actions. Also, many students think twice about cheating if they realize they will be signing their names to a statement of integrity.

Grading policy also strongly influences the students’ perception of what is valued in the laboratory experience. If the right answer is all that earns credit, students will be tempted to cook (or falsify) data to produce that answer. Labs that allow students to make mistakes, learn from those mistakes, and earn credit for the mastery of that lab are much less prone to data falsification. Lab assistants can also prevent falsification by paying careful attention to what everyone in the lab is doing and attending to any problems students have in their research.

**Collaboration on Work that is Supposed to be Individual**

Most graded assignments at the University rely on individual effort; but many courses rely wholly or in part on student group work in laboratories, writing projects, classroom exercises, or discussions. Students may take advantage of study or lab partners to avoid doing work
themselves; they may also accidentally go too far in their group work without intending any dishonesty.

To prevent collaboration from becoming dishonest, explain very clearly what your standards are for individual and group conduct. Encourage collaborative work as much as possible—after all, the dynamic learning which can happen in a classroom is simply one variation of that academic collaboration—but specify what subjects or tasks may be done in groups and which are to be the result of individual effort. For example, you should indicate clearly whether laboratory groups are to write up a single research report or whether each member of the group must do an individual write-up. For group projects, you should also be clear on what roles each member of the group is expected to perform, and make sure those roles are defined as equitably as possible.

Misrepresentation and Obstruction

At times, students may believe that they are not adequately prepared to take an exam or turn in a paper. Claiming, “my grandmother died” is often the recourse to get more time to study for that test or to complete that paper. Falsely playing on an instructor’s sympathy to gain an academic advantage is a nasty deceit. It is also a violation of the current Academic Integrity Policy. There are two ways to prevent misrepresentation in your classroom. For papers, you might define a submission “period” rather than a specific day. Giving the students a range of days or a particular week to hand in their papers allows students to make better planning decisions and preempts the temptation to lie about a circumstance when a paper remains unfinished at the due date. Also, you are perfectly free to require documentation of circumstances that allegedly interfered with the student’s ability to sit for an exam or submit a paper.

“Obstruction,” or the deliberate act of interfering with another student’s ability to conduct scholarly endeavors (stealing the notebook, disabling the computer program), is also a violation of academic integrity. Make sure that your students are aware of the four types of academic misconduct: plagiarism, cheating, misrepresentation, and obstruction.
Computing and Network Ethics Issues

Computer networking and software can offer opportunities for violating norms of honesty, whether purposefully or inadvertently. Students may gather information without realizing copyright or citation rules apply. Email lists and networked discussion forums frequently feature material reprinted without the creator’s permission, often because of a common misperception that “if it is on the Internet, it must be free to all takers.” In addition, software piracy becomes misleadingly easy when students have access to a networked software library but do not take the time to familiarize themselves with the rules for its use.

Encourage your students to respect property rights for electronic media as you would for printed media. Direct them to the University’s computing and network ethics policy, which can be found in the Student Services Guide available without charge to all students. If you are encouraging students to conduct research via the Internet, draw their attention to notices of copyright, and teach them how to cite material drawn from websites, email messages, and electronic databases.

Cultural Issues Regarding Plagiarism and Intellectual Property

In the United States, we tend to think that issues of plagiarism and cheating are fairly clear-cut. Unless there is some real ambiguity about procedures for a given assignment, we assume that work is to be performed by individuals and that writing should reflect one’s own original ideas or give credit to sources. However, not all cultures share this individualistic perspective. In many countries, the mark of erudition is not one’s ability to generate original ideas but one’s ability to quote or otherwise demonstrate command of classically approved knowledge. American individualism may also blind us to the extent to which we really do work as teams and communities, while students with other national perspectives may be more accepting of group-oriented work. And in many nations, intellectual property is defined in different terms from those used in the United States. In the classroom, these cultural perspectives can clash in several ways: a student may ask a sibling or friend with a better command of English to review and revise a paper; students may collaborate on projects which are supposed to be done separately; most commonly, students may include ideas and information in their written work without giving proper credit to their sources. The students are not necessarily trying to cheat, but may genuinely be unaware of the fact that they are applying different ethical standards from yours.

You can avoid problems with different cultural attitudes toward intellectual property by discussing the issue openly in the classroom.
Explain in clear terms what you mean by academic honesty, including the broader principles underlying any specific policies. Clearly delineate when students may work collaboratively and when work is to be the result of individual effort. Hold a discussion of what it means to be a learned person in American culture, and invite questions. If you suspect copying or collaboration, determine whether it is possible that the student doesn’t realize which set of norms is supposed to apply before pursuing a charge of cheating. That said, once you have made it clear what your standards are, enforce them; you are ultimately obligated to uphold the standards which prevail in American culture, and you should not allow students to use cultural difference as an excuse for not learning and applying them.
How to Deal with Evidence of Cheating

If you suspect a student has plagiarized or cheated on an assignment, you need to arrange a conference with the student as soon as possible. Discuss the work in question. If you think material or solutions were copied from outside sources, ask the student to explain how the idea was generated or how the solution was derived. Determine whether the problem is the result of a misunderstanding about the rules for the assignment or about standards of citation, or if the student has deliberately infringed on academic regulations. Give the student a chance to admit wrongdoing or explain what happened; but if once you have discussed the matter you are still sure the student has cheated, follow the procedures detailed below.

Academic Regulations and Procedures

It is each undergraduate’s responsibility to know and to follow the academic regulations and procedures of the University. Complete information is included in the General Bulletin. Below are excerpts from the General Bulletin plus pertinent supplementary information.

Academic Integrity

All students are expected to adhere to the standards of academic honesty consistent with the University Statement on Ethics. Any work submitted by a student must represent his or her own efforts. Any student engaging in cheating, plagiarism, or any other acts of academic dishonesty will be subject to disciplinary action.

Students, faculty, and administrators share responsibility for the determination and preservation of standards of academic integrity. Not only must they adhere to their own personal codes of integrity but they must also be prepared to educate others about the importance of academic integrity, to take reasonable precaution to discourage violations of academic integrity, and to adjudicate violations. For students, education about the importance of academic integrity begins during the admissions process.

Faculty and students are expected to uphold standards of academic integrity by taking reasonable precaution in the academic arena. Reasonable precaution involves implementing measures that reduce the opportunities for academic misconduct but do not inhibit inquiry, create disruption or distraction in the testing environment, or create an atmosphere of mistrust.

The vitality of academic integrity is dependent upon the willingness of community members to confront instances of suspected wrongdoing. Faculty have specific responsibility to address suspected or reported violations as indicated below. All other members of the academic community are expected to report directly and confidentially their suspicion of violation to a faculty member or a dean or to approach suspected violators and to remind them of their obligation to uphold standards of academic integrity.
Academic Integrity Violations

All forms of academic dishonesty—including cheating, plagiarism, misrepresentation, and obstruction—are violations of academic integrity standards.

If a faculty member suspects that an undergraduate student has violated academic integrity standards, the faculty member shall advise the student and the departmental chair and consult with the Dean of Undergraduate Studies about the appropriate course of action. Before speaking with the student, the faculty member also may choose to consult with the chair or dean about academic integrity standards. If the faculty member, in consultation with the dean, determines that the evidence is not adequate to charge the student with a violation, the matter will be dropped. Otherwise, the following procedures will be followed:

First Violations

If the faculty member and the student agree that a violation has occurred, and the violation is determined to be a first violation (the university has no record of previous violations by the student of the university’s Standards of Conduct), the faculty member may choose to sanction the student with either failure in the work in question or failure in the course. In such cases, the faculty member will be provided with a standard reporting form to be signed by both the student and faculty member.

Alternately, the faculty will refer the case to the associate vice president for student affairs for integrity board action if:

- The student claims not to have violated academic integrity standards or the student disagrees with the sanction imposed by the professor.
- The faculty member believes that the seriousness of the first offense warrants presentation to the academic integrity board.
- The faculty member prefers to have the academic integrity board investigate or adjudicate the alleged violation, or prefers that the board sanction the student.
- The signed report form from a faculty member or the finding of responsibility by the academic integrity board will become part of the student’s university judicial file.

Students found responsible for a first violation will be required, in addition to any other sanctions imposed, to attend an ethics education program or to complete an ethics exercise, as assigned by the dean of undergraduate studies or the assistant vice president for student affairs.
Subsequent Violations

If the University judicial file indicates that the student suspected of a violation has been responsible for one or more previous violations of the university's Standards of Conduct, the case will be referred to the associate vice president for student affairs for academic integrity board action.

Misrepresentation and Obstruction

Reports of suspected academic misrepresentation or obstruction occurring in settings other than the classroom will be referred to the assistant vice president for student affairs for academic integrity board action.

Violations of academic integrity standards are considered violations of the university's Standards of Conduct and will be recorded in the student's judicial record. University judicial files are maintained by the assistant vice president for student affairs in the office of student affairs.

In addition, the University is required to report to the funding agency the identity and misconduct of anyone, including a student, found guilty of falsification, fabrication or plagiarism in the performance of research that is receiving support from federal sources.

Additional Resources

The following resources offer additional insight into academic integrity:


Learning Styles in Experiential Learning Environments: Core Seminar

“The thrill in teaching is learning yourself.”
~ Professor Grover C. Gilmore, Psychology

Seminar Description

Using the scores from the Kolb Learning Styles inventory (to be administered at the start of the session), you will learn more about your preferred learning style and how your style may impact your instructional approach with your undergraduate students. This seminar also will help you develop professional communication strategies.

If you did not take the Kolb, please contact Professor Olson-Fallon about a week before attending one of the Communication seminar sessions. You must arrange to take the Kolb Inventory before the seminar series. This appointment will take about 20 minutes for you to respond to the inventory and to score it. You will return the inventory to the ESS staff so that the Mentor TA Team will have your inventory to plan for the seminar.

For more information about the Kolb, check out these websites and feel free to make an appointment with Professor Olson-Fallon:
http://www.coe.iup.edu/rjl/instruction/cm150/selfinterpretation/kolb.htm
http://www.learningandteaching.info/learning/experience.htm
http://www.usd.edu/~ssanto/kolb.html

Seminar Objectives

- To assess your preferred learning styles as defined by the Kolb Learning Style Inventory
- To understand the nature of experiential learning as it relates to your TA role
- To discuss ways to use your knowledge of learning styles to plan and to interact with students according to your TA role(s)
Learning Theory and Practice

A full, in-depth discussion of learning theories and modes would require far more space than is possible in this practical guide. Much research has been devoted to understanding the brain’s physical processes, the effects of environmental and innate physical factors, and the roles of personality and experience in learning. This research is still ongoing, and new discoveries are being made daily.

This section is intended to introduce some of the ideas that are currently employed in understanding learning processes and preferred learning strategies and to make you aware of some of their possible classroom uses. What is most important is to be aware that your students may be using different approaches to learning than you use and that there may be wide differences among these approaches. The explanations are, at best, preliminary: if you are interested in more information contact The University Center for Innovation in Teaching and Education (UCITE) 216-368-1224 http://www.case.edu/provost/UCITE/index.html.

Levels of Knowledge and Understanding
(Adapted from Teaching at Case Western Reserve: A Publication for Faculty Members)

Benjamin Bloom and his colleagues developed the most influential definition of various levels of understanding. Bloom’s taxonomy is summarized in a simplified form below:

1. **Knowledge** - recall
2. **Comprehension** - making use of knowledge in a limited context
3. **Application** - using abstractions of knowledge in concrete situations
4. **Analysis** - breaking knowledge into its parts and seeing relationships between the parts
5. **Synthesis** - putting components of knowledge into a new whole
6. **Evaluation** - making judgments about the value of knowledge, abstractions, or parts of knowledge

At the college level, most faculty members expect students to develop skills that allow them to perform satisfactorily up to at least level three on Bloom’s scale. Yet, we do not always explain our expectations to students in these terms or consider the progressive difficulty of these levels when constructing assignments. When you plan your course, consider which of these levels you want students to demonstrate and what level they may be operating at. For example, you may need to work up to an analytical assignment by making sure students can recall, use, and abstract the knowledge required to pursue the analysis.
Learning Cycles
(Adapted from Teaching at Case Western Reserve: A Publication for Faculty Members)

According to the “Experiential Learning” model developed by David Kolb at Case Western Reserve University, learning occurs through a cycle in which experience is internalized, conceptualized, and tested by the learner. The Kolb Learning Styles Inventory is particularly appropriate to consider because CWRU is committed to using the experiential learning model in both small and larger classes. The SAGES course sequence has specifically been created with the experiential learning model in mind. The components of the cycle are as follows:

- **concrete experience** (sensing)
- **reflective observation** (remembering or thinking)
- **abstract conceptualization** (idea explaining)
- **active experimentation** (testing)

The cycle can repeat endlessly and can start at any point in the cycle. Two other important aspects of Kolb’s view of the experiential learning cycle include the notion that learners test out their ideas in a current context and that the feedback they receive helps to change or modify what they have been learning. For example, a child who touches a hot stove

- *senses* the heat of the stove;
- *reflects* upon the experience by thinking about the pain which results;
- *develops an idea* to explain the experience, such as that it hurts to touch stoves;
- and *tests the idea*, perhaps by putting a hand close to the stove without actually touching it or touching a different stove to see if the idea applies to all stoves.

This testing will lead to new experience or sensing, which will lead to new reflection, ideas, and testing. If the child touches a different stove and finds it cold, reflection may produce the idea that stoves are only painful to the touch when hot, or may encourage exploration of other sensory ways of determining whether a stove is too hot to touch.

**Thus, learning requires experience, reflection, conceptualization, and testing.** All of these experiences require the learner’s active engagement. All four elements of the cycle must be completed for learning to occur. Learning is a dynamic process generating change in both the learner and the world; this cycle represents the mechanism by which a learner experiences change.

You can make use of the learning cycle in your teaching by requiring students to work through all four steps of the process. For example, a lesson on visual art can require students to visit the Cleveland Museum of Art and view a modernist painting. After which, you can ask these students to describe in detail the elements of the work and hypothesize about what makes the piece “modernist.” The students can then compare this work to other modernist works, and the similarities and differences observed can lead to more observations and hypotheses.
A lecture too can also be an experience, but your challenge is to have students realize that a classroom lecture is only the first step in learning course material. Even simply teaching students about the learning cycle itself can enhance their learning as they come to understand their own activities at various points of the process and anticipate what they may need to do next.

**Learning Modes**

There are several ways of explaining individual learning preferences, and no one of the following theories is universally accepted. The three theories that follow offer different ways of understanding how individuals take in and process information.

*Remember that students have many different modes of learning. The best use you can make of any of these methods is to understand your own personal learning style and identify ways to adapt your teaching methods to accommodate modes quite different from your own.*
The Kolb Learning Cycle
(adapted from Teaching at Case Western Reserve: A Publication for Faculty Members)

These four modes are derived from the experimental learning cycle described above. Individual learners can be said to have a certain mode, as briefly described below:

Divergers

Divergers are imaginative learners who ask “why?” They favor concrete experience over abstract conceptualization and reflective observation over active experimentation. They are creative, active, extroverted, and intuitive as they pursue learning; but they may be scattered in their thinking and unable to see unifying hypotheses. Additionally, Divergers are interested in cultural diversity. Divergers will see many different angles in an experience but may be unable to develop a favored hypothesis or be willing to test actively any of those developed. Divergers may have professional interests in the arts and may major in humanities or liberal arts. Divergers are comfortable in considering multiple perspectives and they make sense of a learning experience.

Asssimilators

Assimilators are theoretical learners who ask “what?” Assimilators favor reflective observation over active testing and abstract thinking over concrete experience. They prefer to develop abstract concepts rather than to pursue more experiences; they may be less interested in practical applications or new experiments deriving from their hypotheses and more concerned about internal logical consistency. Assimilators may be more interested in working on their own to gather (assimilate) information from a variety of resources in order to develop theoretical models and abstract concepts rather than learning from others.

Convergers

Convergers are pragmatic learners who ask “how?” Convergers favor abstract thinking over concrete experience and active testing of their ideas over reflection. This mode is found in people who want to apply ideas and who excel in problem solving and decision making. Furthermore, Convergers seem to do best on problems or situations that require a single correct answer. In other words, students preferring this learning mode like to converge on a particular answer.

Accommodators

Accommodators are dynamic learners who ask “what if?” Accommodators prefer concrete experience over abstract thinking and active testing over reflection. They tend to be risk takers and action seekers; they may conduct many experiments based on some concrete experience without having constructed a reflective hypothesis. They tend to solve problems in a trial and error method and to rely on interactions with other people.
for new approaches rather than on analyzing a problem themselves. In other words, students preferring this style can accommodate differing contexts.

As students work through the learning cycle, be aware of tendencies to spend more time and attention at any single step. Do not discourage students from focusing on their favored elements—after all, pleasure can be a strong motivator to learning—but help them avoid getting stuck at any one spot. And guard against any tendency of your own to overemphasize one part of the cycle over the others; be aware of your own preferences and avoid slanting coursework toward them.
Myers-Briggs Type Indicator
(adapted from Your College Experience: Strategies for Success, Concise Second Edition)

Another approach to learning modes explores the basic personality preferences that make people interested in different things and draw them to different fields and lifestyles. The Myers-Briggs Type Indicator, based on Carl Jung’s theory of psychological types, uses eight basic types, shown here in their usual oppositions:

EI (Extroversion/Introversion)

This scale describes two opposite preferences depending on whether you like to focus your attention on the inner or outer world. An Extroverted type learns through action and interaction with others; an Introverted type learns through reflection and individual contemplation.

SN (Sensing/Intuition)

This scale describes opposite ways you like to acquire new information—that is, whether you find out about things through tactile sensing and observing specific events, or through intuitively assessing things and drawing conclusions that do not rely on hard data.

TF (Thinking/Feeling)

This scale describes how you make decisions, whether by analysis and weighing of evidence or through your feelings.

JP (Judging/Perceiving)

This scale describes the way you relate to the outer world, whether in a planned, orderly way or in a flexible, spontaneous way.

Of course, no one is wholly a sensing type or wholly an intuitive type. Most people simply tend to use one approach more often than another, sometimes varying their focus as the needs of the situation vary. These types combine into thirty-two possible combinations that contribute to the learner’s overall personality.

The Myers-Briggs theory uses a Personal Style Inventory (available from UCITE) to determine a learner’s relative emphasis within each of the four oppositions and to identify the particular four-letter combination which comes closest to accurately identifying that individual’s overall preferred styles. Understanding these characteristics can help an instructor work with students,
too. For example, you may recommend that an Extroverted student form a study group rather than trying to review material alone or recognize that an Introverted learner gets a great deal out of listening to discussion without actually speaking up.

**Visual/Auditory/Tactile/Kinesthetic**

(adapted from *Teaching at the University of Virginia: A Handbook for Faculty and Teaching Assistants*)

These four learning modes are derived from the ways in which learners sense information most effectively. Most learners are capable of using all four methods to take in new ideas but will tend to favor at least one to some extent.

**Visual Learners**

**Visual learners best understand and remember what they see.** They often take copious notes in class and write main ideas when studying. They may invent charts and diagrams to learn new information. Visual material such as outlines, illustrations, graphs, lists, and handouts will be very helpful to them, as will encouragement to draw or write information while studying or completing graded assignments and tests.

**Auditory Learners**

**Auditory learners prefer to hear new ideas and information.** They may whisper to themselves or to classmates, concentrate intently on a lecture, or read aloud or repeat material over when studying. Auditory learners can learn well through study groups in which students discuss material aloud, listening to tape recordings and films, and focusing on lectures and spoken material in class.

**Tactile Learners**

**Tactile learners favor touching objects to feel their shape or texture.** They may major in subjects that enable them to work with their hands and will learn better when they can physically touch or hold items under discussion.

**Kinesthetic Learners**

**Kinesthetic learners learn best when engaging in a physical activity.** They may trace outlines of geometric forms, connect certain body movements with specific ideas, or rely on the physical act of note-taking to remember information. Physical experimentation and activities which require students to move around in class can help kinesthetic learners process information more effectively.
You can incorporate all four types of learning into lesson plans and course assignments. Accompanying a lecture with slides or transparencies will help both auditory and visual learners retain the information; having students build three-dimensional models of structures or write formulas can enable kinesthetic learners to grasp principles under discussion. Avoid heavily relying on any single one of these aspects.

**Asking and Answering Questions**

The process of asking and answering questions is the basis for all interaction with students. Students will be curious about how you respond to questions. If you have a less-than-positive attitude about answering those first few questions, students will stop asking.

Here are some useful techniques to help you answer and facilitate questions:

- While you can field questions as they come, you may want to write them on the board or overhead so that you can organize your approach to answering them.

- In a large lecture hall, repeat the question before answering it.

- When you ask a question, allow some time to pass for students to prepare an answer. Some seasoned teachers recommend waiting at least 10 seconds before asking the question again, perhaps in a different format. If you answer your own questions because you are uncomfortable with silence, you will soon train students to sit and wait for your answers. If you wait for answers, often students’ responses will be thoughtful. And once they do respond, you may ask for students to elaborate or encourage other students to add on to the response.

- Some instructors use a participation grade to ensure that students will speak. That policy is difficult to carry out in a small class and impossible to do so in a large class. You can ask your students to bring to each class study questions concerning material they are to read for each class and base your participation grade on these questions. Ask students to bring these questions typed (perhaps one copy for you and one for them) and collect them at the beginning of each class. You can also ask students to respond to questions about the reading assignment on Blackboard before class.

- If a student answers a question incorrectly or slightly off course, respond with a statement that indicates that you appreciate the response but that some aspect of the response requires some consideration and amendment to it. Ask other students to help reshape the answer.

- If you have students who frequently ask questions that are not on target with the class, make a point of writing down the question and letting the students know that you are recording the question so that it may be addressed later either in class or
outside of class. You can state that you appreciated the question, but at the moment, it would be better to delay answering that question until specific material is covered or until after class.

- Ask *how* and *why* questions rather than *what* or *who* in order to promote reflective thinking about the material rather than just a regurgitation of material discussed in a previous class. Students are easily turned off from discussions that do not provide some challenge and level of engagement.

- If a few students appear to dominate the discussion, you may decide to pair up students, perhaps partnering the more talkative students with those a little more reserved. Ask the pairs to respond to a set of questions that you will discuss with the entire class a little later in the class. When the report-out begins, you may ask specific students to share what they discussed in their small groups. The students you ask to report may include those students who do not always volunteer.

- Consider learning styles and where you are in the material. If you are beginning an instructional unit, you may want to begin with focused questions that help students define and organize information. Focused questions help direct learners to shape definitions and concepts; to seek feedback about what they do or do not understand; and to connect together parts of a concept, strategy, or idea. Another approach is to use brainstorming to consider the possibilities that an instructional unit might hold. You may also think about what they have already learned so you may adjust your expectations of how to deliver the information. This strategy may enable the students to see connections between this new information with what they have learned or will learn.

- As you are working through the material, you may wish to ask both focused and broad questions. The latter type of questions may include those that predict outcomes or consider students’ perceptions and observations about the material. Broad questions ask students to take a step back from the instructional moment to see how this current information may relate to other material, to take the immediate example and form a generalization that may be applicable in other situations, or to consider where the material might lead them next.

- As you conclude an instructional unit, again you may ask both focused and broad questions to help students increase their understanding of key concepts. This approach might also help them conceptualize the material in comparison with information they have learned previously.
Learning Styles: Student-Centered Learning

Course preparation includes everything from designing a course from scratch to signing on for a section of a course your department offers each semester. If you are planning a new class, start as early as possible to make sure your ideas fit smoothly into the needs and structure of a semester. Even if you are instructing or assisting with a class in which the textbook, assignments, and exam schedule have already been decided, you should still ask yourself the following questions before the semester begins.

Is your course plan content-driven or student-driven?

Many instructors plan their courses based on content. They know that they want to teach certain material. Next, they work out a syllabus and a teaching plan focused on the amount of material to be presented, the depth and the breadth of the coverage, and the texts and other material needed for conveying the information. This approach can produce an interesting, even rewarding course. But in planning in this manner, you also risk overlooking the students’ needs and goals.

With a student-driven plan, you will ask such questions as the following:

- What skills do the students have as they begin the course?
- What skills will students have gained or improved upon by the end of the course?
- How will the students apply what has been learned in this course to future classes or professional activities?
- What are the students’ expectations of the course?

By asking questions like these as you plan, you can design a class that covers the material you want to cover in the most effective way for both you and your students.

What do you expect students to learn? Do assignments encourage and evaluate that learning appropriately?

Of course, the simple answer to the first question is “the material we’ll be covering,” but students learn much more than a specific body of information in every class:

- They learn intellectual skills such as critical thinking and clear writing.
- They learn the norms of certain academic disciplines or professions, as well as successful habits of mind and work.

You should decide what students in your class need to do (other than only mastering the material), and then plan your class activities, graded assignments and tests accordingly. For example, if you want students to present coherent arguments about the subject matter, then structure activities requiring discussion or debate, and evaluate those exchanges thoroughly. If
critical reading is one of your goals, give assignments requiring more than simple recall of information from the text.

**What is the purpose of this particular course/section? How does it fit into the curriculum? Into students’ education?**

Find out how your course corresponds with the other courses in your department and to let your students know where your course falls in the departmental course offerings. You might teach skills that are fundamental to more advanced courses or offer a chance to study a fascinating but uncommon topic. The questions to ask are the following:
- Is your class an introduction to the rest of the classes in the department?
- A required prerequisite to advanced study?
- A core requirement of the university?
- An optional elective?

**What is the history of this course?**

Even if you have never taught it before, your course may have a long and established history among students. It may be dreaded or loved, or you may find yourself following in the footsteps of an excellent or an inadequate instructor. To avoid getting tripped up by students’ preconceptions or unrealistic expectations, find out about your course by talking to colleagues or reading previous semester course evaluations. Past evaluations may be accessed on the University’s web page at [https://www.case.edu/courses/evals/evals.html](https://www.case.edu/courses/evals/evals.html). In addition, print versions are kept on permanent reserve at Kelvin Smith Library.

**What ideas and information do students bring? How will you evaluate their preparation? If students are unprepared, how will you remedy that?**

Student preparation varies widely; first-year courses are full of students whose high school preparation may have been barely sufficient or very advanced, and students in upper-level courses may not have retained everything they learned in their preparatory sequences at the University. Within the first week, evaluate how well your students are prepared, perhaps by giving some pre-tests or by requiring a writing sample. If a large number of students are insufficiently prepared, you may want to spend a class session reviewing key material; if only a few are under-prepared, you may want to work one-on-one with them yourself or direct them to appropriate help, such as the Writing Resource Center (WRC) or Educational Services for Students (ESS).

Consider, too, what misperceptions your students may have about your subject or about how to learn it. For example, students may think that they need to learn all their information by studying on their own and faithfully attending lectures, and they may consider the classes as optional. They may think that asking questions is a sign of weakness that will hurt their image in the class. Or they may view teachers as all-powerful providers of the right information and...
the right answers and may become confused or even upset when teachers pose open-ended questions or present problems without right solutions.

What natural thematic or conceptual divisions are there in the course? How does the course divide logically into manageable units?

Students need to know both the individual details of any course and the overall theme or principle to be learned. A syllabus without clear and logical movement from one idea to another will appear to the student as a bewildering mass of information too huge to be assimilated at once. Be explicit about the logic of the organization of the course. You know the subject better than your students do; connections that seem obvious to you may completely escape your students if you do not point them out.

What are your own learning and teaching styles? How can you plan your teaching to use of your own style while recognizing and meeting the needs of students?

How do you prefer to process information? How do you prefer to explain it? Being aware of your personal style can help you recognize how it influences your teaching. Being aware of alternative styles can help you teach students who handle information differently than you do. It is important to vary your teaching so you do not rely on only one or two ways of learning. A class that is all lectures or all visual demonstrations will be more difficult for students whose styles do not favor such presentations. Learning styles are described in greater depth in the Communication Seminar section of this TA Manual.

How will you assess progress throughout the course? What kinds of assignments and activities are appropriate for the course?

Students can learn course material through lecture, discussion, reading, field trips, working with guest speakers, or viewing of films; they can demonstrate their understanding of course material by successfully completing tests, papers, quizzes, group and individual projects, and presentations, among other tasks. Which of these you use will depend on your course goals, the size of the class, and the nature of the subject matter to be covered. You should decide how you will measure student comprehension and how often you will do so. Find out early on how students are doing; do not wait until midterm, when it is too late to deal effectively with a class that is not mastering the material.

How can assignments best meet students’ needs while effectively teaching the material?

If students have limited experience with the ideas presented in your course, the students may not be motivated to investigate them. Information that is broadly abstract may interest some of your students, but many others will fail to see a connection to their own interests and their lives.
Connecting these abstractions to specific details that draw on students’ own experiences or demonstrated interests will motivate them more effectively. Students who are in the pre-medicine program will be interested in examples from medicine; political theories can be explained in the context of student governance.

**What is your class size? How will that affect assignments and grading?**

The smaller the class, the more individualized attention you can give to the students; the larger the class, the less you can give. Plan assignments in order to make best use of that attention, rather than just keeping your paperwork load manageable. A survey class may be too large to assign more than two substantial papers per semester. You may need to find more effective ways to measure student understanding, such as frequent quizzes or short un-graded essay responses to an in-class question.

**What resources do students have outside of class? Do your assignments require them to use those resources?**

Students must realize that real learning takes place outside the classroom. Ultimately they must rely on their own recall and research techniques rather than on memorization of what they have been told in the classroom. You should be willing to direct students to the libraries, reference books, handbooks, workshops, agencies, or other resources that they can use to teach themselves. Further, you should incorporate these resources into your class, both by showing students how to make effective use of them and by assigning work that requires them to draw on those resources.

**What is a reasonable student workload?**

A common rule of thumb is that students can expect to spend two hours studying outside of class for every hour spent in class, which means that if your class meets two and a half hours per week, students should average five hours of study and homework. However, it is difficult to plan around such a figure, because every student works at a slightly different pace. First-year students tend to struggle under course loads that upperclassmen find reasonable; slow readers spend disproportionately more time studying than fast readers do. Ask your colleagues about how they plan course workloads, and be prepared for some variation.

**What sources will provide the course material?**

Typically, instructors choose textbooks for their courses and order them through the Case Western Reserve University Bookstore for students to purchase. Not all students, however, will purchase every book—either because they cannot afford to, or because they do not expect to keep the books after the semester has ended. Consider putting copies of the books on reserve at Kelvin Smith Library. Reserve forms are available at the service desk or online at [http://library.case.edu/ksl/index.html](http://library.case.edu/ksl/index.html).
If you are using articles in class, you may wish to distribute copies in class or make copy sets available through the bookstore. You can also put articles on e-reserve through Kelvin Smith Library, with the expectation that students will read the articles as assigned. Or you could post the articles on Blackboard, an online system that allows you and your students to stay connected between classes, submit or return assignments, and post comments about reading assignments.

If you intend to use audio/visual material in class, plan early to ensure the equipment you need is available. Many departments have their own overhead projectors, slide projectors and screens, VCRs, laptop computers, and LCD computer projectors for use by faculty and TAs. Projection equipment can also be obtained from MediaVision (the Audio/Visual Services department at Case Western Reserve). Contact MediaVision at (216) 368-3777 or http://www.case.edu/its/itac/mediavision/.
Lesson Plans and Lab Plans

Whether you are in the classroom, the lab, or even meeting with students in an office setting, planning should be part of the process.

For the classroom, using a binder is an efficient way of keeping track of all of the materials that you will need for teaching, including lesson plans, handouts, homework assignments, etc. Often, students may ask you for extra copies of materials before or after class. With a binder, you will have easy access to these materials when you need them.

Begin class on time, even if a number of students are not present. If you wait for students to arrive, you are signaling to those who were on time that they do not have to be on time from here on out. At the same time, plan your class or lab so that you stop at the appointed time. If you do not finish class or lab in time, students often become anxious and begin packing up prematurely.

Lesson plans

Review previous course material

Be sure to allow for time for this segment of the class. This time spent will help students make the connections they need to master the course content. However, if a student asks an involved question and you sense that most students understand the concept, gently invite the student to meet with you after class.

Create an outline of what will be accomplished during class

Students like to know what will happen in class, especially if it is a long class. Students quickly grow impatient with teachers who continually run over class time. As you plan the lesson, consider how much time each activity might take.

Pose questions for the lecture

Being spontaneous is good, but because questions are what help move students through a learning process, plan out your key questions and where you might insert them into the lesson plan. Consider the most logical sequence for your questions.

Divide the lesson into 10 or 15 minute parts

Students may lose interest very quickly; they expect to be involved in the class in a meaningful way. While you may sacrifice some content for more student involvement, students will learn the material more thoroughly if you break class time into shorter segments. There are a number
of ways to test your students’ understanding of smaller chunks of material without using the traditional pop quiz:

- Break students into pairs or small groups to respond to a problem that uses the material just covered. Encouraging students to try out the information that you just presented helps you to assess how well students are learning this material. To encourage student participation in these small group activities, offer extra credit or state that the questions/problems covered in these activities will be similar to exam questions.

- Ask students to report their work/answers individually on sheets of paper that are collected at the end of class or orally through a class discussion.

- Begin a new segment with a scenario that addresses some of the issues about to be discussed (if the content lends itself to that approach).

- Invite students present information or do problems with everyone helping with their work so that they do not feel too much in the spotlight.

Use wrap-up activities to reinforce the main ideas of the lesson

As with the introductory activities, wrap-up tasks should not be rushed. Use this time to clarify or adjust assignments and set expectations for the next class, assignment, exam, or project. Furthermore, you might use this time to ask students to respond to a one-minute paper or a short assessment question. A sample prompt may ask students to consider what they felt was the main idea of the lecture, what they saw as unanswered questions regarding the material covered in class, or what they felt went well in class and what needed to be changed.

These one-minute papers will help you gain insight into students’ perceptions of your class. This information is especially helpful the first few weeks of class when students are forming their impressions of the course.

Lab Session Plans

Offer a brief introduction

Cover the purpose of the lab, demonstrate the procedures and equipment, and emphasize any safety precautions. Do not spend too much time on the introduction. Include a review of related concepts from the lecture and how these concepts relate to the lab.

Outline what students should do during the lab, including:
- the sequence of steps in the lab
- what they need to observe, draw, record, or take note of
- what they have to hand in afterwards
Ultimately, lab time is active learning time. If a lab requires a longer introduction, you may want to work with students in small groups rather than addressing the entire class at once.

**Manage group visits**

During the lab, move from group to group. Do not spend time chatting with other professors or TA’s or spend too much time assisting one student. You should visit every group, pair, or student at least once if not two or three times a lab. Interact by asking pointed questions that require students to take their thinking one step further. If students have questions for you, refrain from just feeding them the answer. Instead, ask leading and focusing questions in an effort to guide them to the answer.

If students look confused, do not wait for them to ask a question. A simple “What stage are you at?” or “How is it going?” will help you check on their progress and give them an opening to ask a question. At the same time, do not intimidate students by asking too many questions or by hovering over them.

If you do not know or are unsure of the answer to a student’s question, say so and then find the answer by consulting a colleague or a textbook. Never try to hide what you do not know by giving a confusing or muddled reply. Furthermore, never give students the impression that they have asked an unintelligent question. Finally, be sure to show your students respect and cooperation by being approachable.

**Incorporate short breaks**

Consider stopping lab once or twice (if possible) to cover key individual questions that might be helpful to all students, to watch a demonstration, or to discuss concepts and procedures.

**Emphasize Connections**

Draw connections/relationships between the experiment (or procedure) and concepts. Ask students to tell you how the lab relates to concepts learned in class.

**Discuss results**

If students’ results are not as expected, encourage them to speculate on what caused the deviation.
Conclude the lab session

As students leave, make sure that they have kept workplace clean and put the equipment away properly. As you leave, do a routine check: lock the equipment; check the air, gas, and steam taps; turn off the lights; and then lock the laboratory.
Observation and Follow-Up: Core Seminar

“Students are not there to absorb what’s being poured into them but are part of the process of generating new knowledge.”
~ Professor Grover C. Gilmore, Psychology

Seminar Description

One of the best ways to enhance your teaching is to watch a master teacher or to be observed and receive feedback. For this seminar, you are asked to either observe an effective professor or arrange to have a Mentor TA observe you in your TA setting.

Choosing the observation: The professor you observe does not have to be in your own department. However, you cannot be currently enrolled in a class or lab with this professor. Depending on your TA responsibilities, you may wish to observe this professor in a classroom or laboratory setting. You are asked to observe at least one hour of instruction and complete the observation sheet available on the TA Training website.

Please note: The professor you observe must sign the observation sheet, which you will turn in along with the observation report at the Observation Follow-up Seminar. If you do not bring your signed and completed observation sheet with you to the Observation Follow-up Seminar, you will not receive credit for this seminar.

We ask that you send a note of appreciation to the professor that you observe.

Objectives:

- To observe a faculty member teaching an undergraduate course or lab in order to discover effective teaching strategies.
- To process the observation with faculty and Mentor TAs in order to enhance your repertoire of teaching strategies within your TA role(s).
Faculty and TAs Recognized for Outstanding Teaching

Faculty and graduate teaching assistants who have been recognized for excellence in teaching are the best resources for new faculty and TAs. Through informal discussion, TA training seminars, UCITE seminars, and phone or email contact, you can get advice or reassurance from experienced instructors.

The John S. Diekhoff Award for Excellence in Graduate Teaching

This award is presented each May at the University Convocation. It was established in 1978 in memory of John S. Diekhoff (1905-1976), an eminent Milton scholar and teacher. It is awarded on a rotating basis to two faculty members from the following disciplines: Humanities, Arts, and Social Sciences; Engineering, Mathematics, and Natural Sciences; Biomedical Sciences and Professional Programs—Nursing, Social Work, etc. Past Diekhoff Awardees include:

2012  **Teaching:**
Mario Garcia-Sanz, Electrical, Computer, and Systems Engineering
Erkki J. Somersalo, Mathematics

**Mentoring:**
Eileen P. Anderson-Fye, Anthropology
Glenn D. Starkman, Physics and Astronomy

2011  **Teaching:**
T. Kenny Fountain, English

**Mentoring:**
Jeffrey R. Capadona, Biomedical Engineering
LaShanda Korley, Macromolecular Science and Engineering

2010  **Teaching:**
Daniel Goldmark, Music
Mendel Singer, Epidemiology and Biostatistics

**Mentoring:**
Susan Hinze, Sociology
Barbara Lewis, Communication Sciences and Pediatrics

2009  **Teaching:**
Hillel Chiel, Biology, Neurosciences, and Biomedical Engineering
Harsh Mathur, Physics

**Mentoring (new in 2009):**
David Schiraldi, Macromolecular Science
Christian A. Zorman, Electrical Engineering and Computer Science

2008  Heath Demaree, Ph.D., Psychology
Athena Vrettos, Ph.D., English

2007  Richard Boyatzis, Ph.D., Organizational Behavior
Richard Hanson, Ph.D., Biochemistry
2006  John Lewandowski, Ph.D., Material Science  
      Charles Rozek, Ph.D., Biology  
2005  Kimberly Emmons, Ph.D., English  
      Gary Glabraith, Ph.D., Theater & Dance  
      Janet W. McGrath, Ph.D., Anthropology  
2004  Dmitri Kourennyi, Ph.D., Biomedical Engineering  
      Aloen L. Towsend, Ph.D., Mandel School of Applied Social Sciences  
2003  Neil F. Otani, Ph.D., Biomedical Engineering  
      Robert W. Brown, Ph.D., Physics  
2002  Eva Kahana, Ph.D., Sociology  
      Catherine L. Albers, M.S.A., Theatre Arts  
2001  Hope Barboukis, Ph.D., Nutrition  
      Vanessa Druskat, Ph.D., Organizational Behavior  
2000  Roberto Ballarini, Ph.D., Civil Engineering  
      Michael Zagorski, Ph.D., Chemistry  
1999  Fred Zimring, Ph.D., Psychology  
      Jonathan Sadowsky, Ph.D., History  
1998  Bo Carlsson, Ph.D., Weatherhead School of Management  
      Christopher Whalen, M.D., School of Medicine  

The Carl F. Wittke Award for Excellence in Undergraduate Teaching

This award is presented each May at the University Convocation. It was established in 1971 in memory of Dr. Carl F. Wittke (1892-1971), a distinguished faculty member and administrator who gained national recognition for his work on the history of American immigration. It is awarded on a rotating basis to faculty members of the Colleges of Case Western Reserve University: Humanities, Arts, and Social and Behavioral Sciences; Mathematics and Natural Sciences; Engineering. The Wittke award winners include:

2012  Heath Demaree, Psychological Sciences  
      Ramez Islamboull, Modern Language  
2011  Brian Metrovich, Civil Engineering  
      Bernard Jim, SAGES  
2010  Frank Merat, Electrical Engineering and Computer Science  
      Rekha Srinivasan, Organic Chemistry  
2009  Corbin Covault, Physics  
      Nancy Diflilio, Biology  
2008  Donald Feke, Chemical Engineering  
      Richard Osborne, Management  
2007  Deepak Sarma, Religion  
      David Pearson, Accounting
The Graduate Dean’s Instructional Excellence Awards

The awards were established in 1988 to recognize graduate teaching assistants nominated by Department Chairs for outstanding achievement in carrying out their instructional responsibilities. There are two award categories: outstanding performance in a primary instructional role (direct assistance in or responsibility for classroom teaching) and in an instructional support role (grading, assisting in a laboratory, leading a recitation section, etc.). These awards include a certificate and honorarium and are presented at the Graduate School diploma ceremony during the University Convocation each spring. The awardees for the past four years include the following:

2012  Mary K. Assad, English
Chi-Hung Chuang, Chemistry
Catherine Dunning, English-SAGES
Timothy Henderson, Computing and Information Sciences
An Jiang, Art History
Tammy Kuntz, Music Education
Mike LaBarbera, Electrical Engineering
Feng Li Laughlin, Chemistry
Marcus Mitchell, English
Monica Orlando, English-SAGES

2011  Vanessa Bond, Music
Tennyson Doane, Chemistry
Souha Fares, Statistics

2010  Robert Brown, Physics
Laura Tartakoff, Political Science
Robert E. Dunn, Music
Robert E. Harris, Chemical Engineering
Christopher Butler, Mathematics
Hillel Chiel, Biology
Jutta Ittner, Modern Languages & Literatures
Eric Youngstrom, Psychology
Ronald Cechner, Biomedical Engineering
John Orlock, Theater
Kenneth Ledford, History
Mano Singham, Physics
Thomas Sayers Ellis, Creative Writing
Carol Epstein, Nursing
Gary Ciepluch, Music
David Smith, Electrical Engineering
Miriam Levin, History
Joe H. Payer, Material Science and Engineering

2009  Michael Bonatti, English
Adam Guinaid, Computer Science
Sarah Ludlow, History
Robert L. Martin, Chemistry
Timothy J. Levine, Psychology
Jennifer M. Mitchell, English
Paul A. Young, Computer Science

2008  William R. Carson, English
Lee Ann Cieslak, English
Robert E. Currell, Mathematics
Ian E. Magee, Physics
William G. McPhail, Psychology
James R. Mihaly, Chemistry
Neda M. Karaman, Music
John Orlock, Theater
Kenneth Ledford, History
Mano Singham, Physics
Thomas Sayers Ellis, Creative Writing
Carol Epstein, Nursing
Gary Ciepluch, Music
David Smith, Electrical Engineering
Miriam Levin, History
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Jutta Ittner, Modern Languages & Literatures
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Ronald Cechner, Biomedical Engineering
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Mike LaBarbera, Electrical Engineering
Feng Li Laughlin, Chemistry
Marcus Mitchell, English
Monica Orlando, English-SAGES

2011  Vanessa Bond, Music
Tennyson Doane, Chemistry
Souha Fares, Statistics
Kendrick Shaw, Biology
Joshua Terchek, Sociology
Alden Voelker, Chemistry

2010  Robert Welling Addington, English
       Daniel Paul Anderson, SAGES
       Hannah Elizabeth Rankin, English
       Plusia E. Vassilaras, Chemistry
       Rachael Nichole Volokhov, SAGES
       Brian Scott Werry, Chemistry

2009  Alexandru Belu, Statistics
       Katherine Crispin, Geological Sciences
       Michael Flatt, Sociology
       Cassandra Freudenrich, SAGES
       Matthew Daniel Gawryla, Macromolecular Science
       Bradley Hruska, Music
       Jafeen Samiya Ilmudeen, SAGES
       David Jacobs, Physics
       Junheng Ma, Statistics
       Henry Milliman, Macromolecular Science
       Danielle Nielsen, English
       John Nowakowski, Mechanical & Aerospace Engineering
       Robin Shura, Sociology
       Barbara Swanson, Music
       Amanda Yoho, Physics

2008  Julia Christman, Mathematics
       Kathryn Daltorio, Mechanical Engineering
       Apurba Kumar Das, Fluid and Thermal Engineering
       Tasia Hane-Devore, English
       Yijing Fan, Statistics
       Brandy Schillace, English

2007  Dawn Aliberti, Sociology
       Tanetta Anderson, Sociology
       Eric Anderson, Mechanical and Aerospace Engineering
       Yu-Hua (Dean) Fang, Biomedical Engineering
       Matthew Gawryla, Macromolecular Science and Engineering
       Richard Kolb, Early Music
       Reijiro Matsuo, Physics
       Jamie McDaniel, English
       Ken McGraw, English SAGES
Seetharam Narasimhan, EECS
Liz Olson, Anthropology-SAGES
Rocco Parro, EECS
Gabriel Rieger, English
Penny Roufs-Neisen, Chemistry
Kenneth Rys, Biomedical Engineering
Xingxian Shou, Physics
Michael Weil, Art and Art History

2006
Anthony Baldridge, Physics
Barbara Burgess Van Aken, English
Eric Dimmitrov, Physics
Iris Dunkle, English
Kerim Genc, Biomedical Engineering
Kimberly Hyde, Art History
Kelsen Laberge, Mechanical Engineering
Peng Liu, Statistics
Debra Nagy, Music
Chalet Seidel, English
Brian Serve, Chemistry

2005
Peng Cong, Electrical Engineering & Computer Science
Meredith Frey, Psychology
Kristen Fouts, Biomedical Engineering
Anna Levenstein, Music
Sarah McCalister, Dance
Marc Petre, Biomedical Engineering
Ehren Pflugfelder
Murat Tasan
Examples of Observation Seminar Reports

Observation Report by Naomi Igarashi Takagi

Describe the academic setting that you observed. Include the professional’s role in this setting. What were the goals for this class or laboratory? Were the goals accomplished?

I observed an ENGL 1## class during the second week of this semester. There were twelve or thirteen students attending this class. This is an introductory composition course, and the student population is a mixture of American students and international students. The instructor’s objectives for that day were to go over the course syllabus, to discuss some invention strategies (e.g. clustering, listing, etc.), and to do group work. All of her goals were accomplished successfully.

Describe the instructional strategies that enhanced the class or laboratory that you observed. Consider the degree of involvement and interaction that the students had with each other and the professional.

The instructor’s teaching style was impressive because she constantly made jokes and made the students laugh. Actually, when she first came in, the students were very quiet, but her being lively and funny made them more cheerful and talkative.

She also put her students into groups so that there were one or two good writers in each group. She was able to do this because she had their diagnostics as her reference. Also, she made them write a letter to her at the very beginning of the semester, so she could estimate their language levels as well as their personality. The students will work with their group mates throughout the semester, so today’s group work enabled them to become acquainted with one another. The students had to share things such as their favorite things to do in their spare time or incidents that changed their lives. At the end of the class, each group had to list twenty things they had in common and hand it in, which I thought was a skillful way of enhancing their solidarity.

Discuss what you have learned from this observation that you would like to include in your own repertoire of instructional strategies.

One of my ENGL 1## classes is also a mixture of native students and international students, and sometimes it is difficult to make them feel comfortable toward each other, especially because this is a language course. They can be self-conscious and nervous. For this reason, the instructor’s ways of “breaking the ice” were very insightful. She was very bubbly and cheerful, so even when she faced an awkward situation (e.g. a student made a yawn unwittingly), she could make a joke out of it while sending her message across to the student. I also thought her way of asking them to find twenty common things was great because even though her students’ backgrounds were quite diverse, she made them focus on what they had in common instead of their differences from each other.

Open-ended response - please use this question to add information not covered in the other three questions.
Classroom atmosphere is very important for this type of interactive classes. Sometimes, it happens naturally, but sometimes we need to make efforts to make that happen. I thought her strategies were quite useful and insightful.

Observation Report by Craig Rudick

Describe the academic setting that you observed. Include the professional’s role in this setting. What were the goals for this class or laboratory? Were the goals accomplished?

I observed Professor X deliver a lecture to his introductory astronomy class of approximately 40 students. These students are non-science majors who are taking the course to fulfill a science requirement. The lecture was delivered as a Power Point slide presentation to the class. In that particular lecture, we were discussing the surface features and geology of Mars. We did so in little detail, with no mathematics, adding quantitative descriptions mostly to compare the structure of the planet to the structure of the planets studied previously. The major goal of the course, and the lecture specifically, is to try to increase the student’s interest in science, but also to teach them the basic methods through which science works. This is different from many other science classes which seek to teach students to actually be scientists. A great emphasis was put on explaining the various missions and types of studies that have been undertaken to study this planet in a general sense, but did not deal with instrumentation, measurement techniques, or other technical details.

Describe the instructional strategies that enhanced the class or laboratory that you observed. Consider the degree of involvement and interaction that the students had with each other and the professional.

During the main lecture, Professor X often employed the use of rhetorical questions in order to stimulate the thinking of the students. The Power Point slide presentation contained many colorful and spectacular photographs, designed to grab the attention of the students, with the goal of being more memorable to students than text alone. Also, the lecture contained several short movies about Mars, attempting to further peak interest in the subject, as well as to allow a small break from the normal course of the lecture. However, the students’ role was almost entirely as passive listeners, with almost no student-student interaction and only a few questions and comments directed at Professor X about the lecture. At the end of the chapter on Mars, Professor X actually worked through some problems on the overhead projector, similar to the problems the students will have on their homework assignments. During this exercise he seemed to put more emphasis not on solving the specific problem, but on general problem solving techniques. These techniques included a stress on using the correct, consistent units in a problem, and always trying to check your answer against what you already know to make sure the answer is plausible.

Discuss what you have learned from this observation that you would like to include in your own repertoire of instructional strategies.
I think the most interesting thing that I learned from observing Professor X teach was how he went about solving the problems. His emphasis on basic problems solving skills, rather than specific problems, is certainly useful to teach to introductory science students. For several of the problems he demonstrated a complete, mathematically correct method for finding the answer, as well as a more quick and dirty way. It is important for students to learn that there are many ways to solve a problem and it is important for us as teachers to try to teach this skill to our students. I also noticed how Professor X used his rhetorical questions to try to keep the students involved in what was essentially a monologue lecture. In a class of over 40 students, it is often impossible to incorporate a great deal of student interaction into the curriculum. Thus it is important for us to do what we can to keep the students interested and motivated. Professor X did this not only with his rhetorical questions, but with his many picture and movie supplements.
Creating an Effective Plan
(Elective Seminar)

Seminar Description

Up to this point, TA training has covered a variety of topics essential to enhancing your instructional techniques and facilitating an ideal classroom environment. This seminar focuses on ideas to consider when crafting lesson plans and facilitating review sessions.

Seminar Objective

- To learn strategies for creating well-organized and productive lesson plans
Approaches to Lesson Planning

Instructors exercise a variety of techniques when planning lessons for their respective courses. While some instructors will write or type extensive, detailed notes to capture all of the material they intend to cover, others might jot down a few topics to expound upon in the course of their lectures. Moreover, in some discussion-based seminars, instructors may create lesson plans that are less extensive in order to encourage students to steer the discussion.

Ultimately, your lesson plan is your framework or “road map” for how you want your class to progress. While approaches to lesson plans vary, the following strategies will help you organize lesson plans productively:

 Outline learning objectives for your students

Milkova (2012) suggests that the first step to lesson planning is not only deciding what you want your students to learn, but what your students should be able to do at the end of your class. In addition, you should consider the following questions when determining your objectives:

- What are the most important concepts, ideas, or skills I want students to be able to grasp and apply?
- Why are these concepts relevant?
- If I am faced with time constraints, are there certain ideas that I can skip? Are there specific concepts that I must cover if I am pressed for time?

 Determine how you will introduce the lesson

Techniques for introducing a lesson include distributing a brief handout or worksheet, showing a video related to your topic, posing a question that helps you gauge what students may already know about one or more of your ideas, or providing a verbal overview of key concepts. Milkova (2012) adds that you should also be cognizant of widely-accepted ideas or common misconceptions related to your topic as you consider how to introduce your lesson effectively.

 Design activities to meet your learning objectives

What tasks are most conducive to the learning objectives you have established? For example, you might have students complete a short, independent writing assignment, collaborate on solving a scenario or case study related to your topic, or (depending on the size of your class) solve a simulated problem related to your topic as a large group.
If your lesson incorporates multiple activities, you should also consider both the order in which you will present the activities and the amount of time each activity will take. Doing so will help enhance the flow of your lesson.

**Decide how to check for understanding**

In what way(s) will you check to see that your students have grasped the material? While some instructors will invite verbal responses to comprehension questions at the end of a class, others might request a written response to a question that tests students’ understanding of a major concept. Furthermore, some instructors may opt to check for understanding midway through a lesson or at another pre-determined point prior to the end of class. Doing so ensures that students have grasped the material you have already presented before moving on to topics that are potentially more complex.

**Develop a conclusion for your lesson**

Your lesson should not end with a simple “That’s all for today.” Instead, summarize the main points of your lecture. (You may either do this yourself or call on students to sum up key ideas from the class.) In addition, try to establish continuity in your class by suggesting connections between your lesson and the topics you plan to cover in your next session. (You might do so by posing a rhetorical question that gestures toward future concepts.) You might also conclude your lesson by sharing either a story that sums up the ideas you have covered or a quotation that reemphasizes your topic.

**Assessing Your Lesson Plan**

After you conclude your lesson, spend some time reflecting what went well and what might be improved in future classes. Svinicki and McKeachie (2013) suggest maintaining a teaching journal in which you document reflections on how well your students received “different approaches, lectures, and discussions” (p. 18). Noting your students’ reception to specific topics and tasks will offer good insight into how you present your material if you teach the same class in later semesters.

**The Importance of Flexibility**

While well-organized lesson plans help create a logical road map for a class session, they should not hinder your flexibility with regard to how your class progresses. For example, you might intend for the discussion of a particular topic to last for just twenty minutes. However, if you find that your students are captivated by the topic and eager to continue the discussion, you might eliminate another activity you had planned (or postpone it until the next class period if
time allows) in order to let the discussion run its course. Effective lesson plans will ensure that you engage you present your material in thoughtful ways. At times, however, student responses might steer your lesson in new, fruitful directions.
Works Cited


Additional Resources

Print


Electronic


Organizing an Effective Lecture: Elective Seminar

Seminar Description

Lecturing remains a popular method of communicating information in the classroom. This seminar will offer strategies for crafting engaging, meaningful lectures for your students. Furthermore, it will consider audience concerns to take into account when preparing lectures for your classes.

Seminar Objectives

- Understand critical elements of an effective lecture
- Learn strategies for crafting sessions that are both informative and encourage student participation.
Lecturing Fundamentals – Considering Your Audience

Lecturing is particularly suited to delivering substantial amounts of factual information, demonstrating processes, and teaching large classes whose size makes broad-based discussion impractical. However, lecturing is often criticized as a sure way to bore students or as one-sided or unimaginative. This point of view can be true, but not because lecturing is inherently dull. It may be that the lecturer has failed to account for the needs of the listening audience.

How might attention span influence your lecture?

People have fairly short attention spans; some estimates suggest that students can listen to a speaker for only about seven to ten minutes before their attention starts to wander. Thus, instead of going at full tilt for forty-five minutes, you should divide your lecture into segments which allow a shift of focus regularly enough to recapture student attention. Also, students can only absorb a limited amount of new material in any given class session. If your lecture is jam-packed with new content, most of the information will sail right by your students.

Are you lecturing when students should be doing?

Lecturing is not always an effective way to teach critical thinking, analysis, or problem solving; these are skills that students must practice. In a lecture-oriented class, build in active learning components to get students working, and integrate these smoothly into the format of the lecture. For example, a lecture on mathematical theories can be supplemented with brief problems students must solve in groups by applying those theories.

Are you using visual aids effectively?

Many students retain information better when they both hear and see it. Diagrams on chalkboards, clear transparencies with an outline of the topic and main ideas, demonstrations with physical props, and even handouts can be useful. Stopping to write on the board or to discuss a PowerPoint slide gives students a moment to catch up, and these visual points serve as an anchor for developing an outline of important course content. Be certain you employ these visual aids to assist students in understanding new material, rather than cramming more information into one class period. If you distribute copies of your presentation, encourage students to take notes on your packet of information, and provide space for them to write notes. Asking students to annotate your material helps them to be active rather than passive listeners.
How does your lecture “fit” into your course?

Make it clear to your students how your lecture is related to previous and future class sessions. The connections may be intuitively obvious to you but not to students. Remind students of underlying principles presented in earlier lectures. Point out that the information learned today will be the foundation for class sessions in weeks to come. The more you can reinforce how daily material fits into the larger structure of your course, the more likely students are to understand and expand on those connections.

Writing lectures vs. using notes – what works best?

Some instructors write out the whole lecture word-for-word; some only note key points and go on spontaneously. Some reach a compromise, drafting a full lecture and then condensing it into notes or note cards for the actual delivery. Whichever technique you choose, make sure that it feels comfortable to you. However, using a complete script rather than an outline may cause you to look more at your notes than your class. It may be more important to rehearse your delivery style than the actual material; practice making frequent eye contact with students, speaking clearly and audibly, and sustaining a pace neither too fast nor too slow. If you are afraid of running out of time, include time guideposts for when you should begin specific segments of your lecture.

What about humor?

Use humor to liven up your delivery. Consider interjecting anecdotes about the topic at hand or pointing out the absurdities or ironies in your subject. Laughter will you’re your students (and you) relax, which can lead to greater interest and attentiveness. By pointing out what is funny about your discipline, you may even inspire students who were initially intimidated by your field to pursue further studies in the subject. Just make sure that our humor is relevant, appropriate, and suited to your own style.

How are students responding?

Lecturing can be one-sided if the lecturer is unaware of student responses. Build in ways to solicit students’ answers or questions; this approach is a good way to find out how well students are processing the material and to make any necessary changes to draw them in or to clarify your points. Pay attention to student responses as you speak; their faces and body language will reveal if you are going too fast or if you are confusing or boring them.

Should students take notes?

If you feel students would benefit from taking notes in class, consider providing an outline to help them see the overall structure of the lecture. You can provide this outline
prior to class, as a class handout, or as something written on the board. Repeat more difficult material in an interesting manner to make sure that students both captured this particular information in their notes and understand it.

Students are sometimes frustrated when they are required to write notes for the entire class. They are especially upset if the lecturer uses lots of PowerPoint slides without making the slides available online. Students spend the entire class furiously trying to keep up without having time to think about the content and/or to see how ideas are organized and connected.

Organizing Your Lecture

Every lecture should have a clear and distinct structure that students can follow without difficulty. As an instructor, you may want to give your students handouts or write outlines on the chalkboard to which students can refer as you proceed. The following list outlines one approach to crafting lectures:

- Start with an introduction to the topic, explaining what points will be covered.
- Proceed to the main section, including relevant examples to reinforce key points. Use more than one example to make sure that all students understand a concept. Also ask your students to consider connections between various examples.
- Wrap up with a distinct conclusion, restating the important themes and information in an informed context.

As the above list shows, lectures have beginnings, middles, and ends. The next section of this document elucidates this structure, outlining the different goals that you should try to meet with each part of your lecture.

The beginning of a lecture

First of all, try to gain students’ attention and motivate them to learn. PowerPoint can be used very effectively to this end. In an effort to bring students into the sphere of your topic, consider using images, music, and/or video clips to draw students’ attention or stimulate discussion.

Secondly, an important goal of the beginning of a lecture is to tell students what they will learn in the day’s session by stating the objectives for the day. Presentation technology allows faculty and TA’s to easily enumerate main points and student expectations.

Consider starting a session with an opening question posed on the board or on a PowerPoint slide. Students can respond to this question in a several ways: they can write their answer(s), simply think quietly, or participate in a “think-pair-share” activity (students think for a few moments about the question, pair up with a partner to discuss the question briefly, and then
come back to share their thoughts with the larger group). Posing an opening question helps to assess students’ knowledge of the particular topic and might help you shift the focus of the lecture to what students actually need.

The meat of the lecture

The meat, or mid-point, of the lecture is where you present the main content. It is helpful to pause every twelve or fifteen minutes for students to process the information actively. Research has shown that people cannot attend to lectures for longer than about twelve or fifteen minutes. If the lecture is longer, students begin to lose focus and their minds will wander. It is in these lulls that students should be engaged in some kind of active learning activity.

Many instructors are reluctant to try active learning strategies during a lecture for a variety of reasons. Some do not think active learning strategies can work in large classes, but this in fact is not the case. Active learning strategies do not need to be difficult to manage, nor must they take a lot of time. They can be one- or two-minute activities, done alone or in pairs, that break up a lecture at twelve or fifteen minute intervals. The strategies discussed below can be adapted nicely to this particular timeline:

- Ask students to turn to a neighbor and come up with a question related to the lecture topic that they feel is difficult. They should try to stump their partner. Faculty and TA’s can then collect these cards and respond to them in class that day or weave the answers into the next lecture. This strategy gives students a greater investment in the course content and what they produce.
- Facilitate a “note check” during the mid-point of a lecture. Ask students to find a partner and compare notes, identifying the most important points of the preceding content are and noting ideas that they find unclear.

Wrapping it up

At the end of your lecture, summarize your main ideas and challenge students to connect the information to themselves, their own values, and its application to the world. To conclude your lecture effectively, try using the following techniques:

- Ask students to write about what the most difficult point of the lecture or their final questions about the material. In this way, students are encouraged to process the material and communicate with you about it.
- Invite students to answer two or three brief questions pertaining to the material you covered. This strategy is called a classroom assessment technique. In a sense, what you are doing is asking students if they understood what you consider to be the most important parts of the day’s material. Collecting your students’ answers in writing or asking them to respond verbally will help you assess whether or not you have met your
teaching goals. If the responses suggest that you have not met your goals, you can cover some of the material at the start of the next day’s lecture or create assignments that will help students process it. While this technique aids in assessment, it also demonstrates to your students that you genuinely care about their learning and that they are achieving what they set out to by enrolling in your course.

Additional Resources

Print


Electronic

How can I organize complex lecture material to best communicate the concepts? (n.d.). Retrieved from [http://tep.uoregon.edu/resources/faqs/presenting/complexlecture.html](http://tep.uoregon.edu/resources/faqs/presenting/complexlecture.html)

Leading an Interactive Discussion: Elective Seminar

“Let students be involved as much as possible during class. They enjoy it and it keeps them on their toes as they never know when they will be asked to solve a problem.”

~ Pamela Monaghan, Graduate TA, Sociology

Seminar Description

While all learning requires an active intellect and interest, active learning methods are those which encourage students to take part in verbal or even physical actions and to engage in activities that help them approach information differently. Employing active learning may mean that you will cover less material, but your students should have a deeper understanding of the content covered in class as long as guidelines and goals are set at the beginning of the semester.

Interactive discussions provide ideal opportunities to encourage active learning. Leading discussions requires that TA’s create a comfortable classroom community and ask good questions. In this seminar, you will learn some basic strategies for staging active and productive discussions.

Seminar Objectives

- To develop strategies to lead discussions that encourage full student participation in classroom and lab settings
- To develop strategies for posing questions that stimulate student discussion
Asking Good Questions

In a small classroom setting, assessing students’ understanding of the material requires that you ask good questions. A class discussion should not be a free-for-all, unguided session. Instead, you should help to steer its course. Additionally, questions should trigger critical thinking, on which the discovery method is based. Good questions can also assist with classroom assessment to make certain that students understand the material before moving to another topic. The following guidelines should help you to develop effective questions:

- **Determine the objective of the lesson.** Having a few objectives in mind regarding what you want your students to learn from their assignment and lectures should help you to select the types of questions you will use to engage the students.

- **Prepare a list of potential questions you would like to ask your students.** You are not limited to these questions or do not have to ask all of them. But being prepared with questions will help you to be more organized, rather than being completely spontaneous with the questions you pose.

- **Craft questions that might elicit many responses.** Good questions have one characteristic in common: they all have multiple respectable answers. Students might pose various answers, which might spark a productive debate.

- **Consider three types of effective, challenging questions when constructing your own, as defined by McKeachie et al (1994).**
  
  - **Comparative** – These questions ask students to compare and contrast various aspects and examples of the material. This is similar to the Hegelian model of thesis + antithesis = synthesis, meaning that when concepts are defined by their similarities and differences, their definition becomes more complete.

  - **Connective** – These questions encourage students to link examples, facts, theories, etc. that are not necessarily part of the assigned materials, but could enrich the discussion of the topic. Connective questions are especially useful in interdisciplinary courses. Such questions can also draw upon students’ personal experiences, linking their background to the theories and research findings. Often, this fosters students to have an experiential or emotive connection to the material, making it more memorable.

  - **Critical** – These questions require that students use their critical thinking skills when analyzing an argument, research claim, or interpretation. They encourage students to do careful, active reading to prepare for class. If a student vocalizes an answer, you may also consider asking another student to evaluate that
response. If you do this periodically, students should not only come prepared for class, but also be attentive during class.

- **Encourage students to answer the “how” of a problem.** Long-term memory of key concepts often occurs when students are encouraged to explain (in their own words) how something functions. This includes, but is not limited to, math problems, scientific experiments, or even analyzing the plot of a literary work or the strength of an argument.

- **Avoid questions that require one or two-word responses and phrase your questions in a manner that requires multi-sentence answers from students.** It is okay to have quick answers that are knowledge-based as a warm-up to discussion or a way of quickly testing students’ basic knowledge of the material. Your main questions, however, should provoke more analytical answers from students or should provide them with opportunities to apply what they have learned.

- **Explain why discussions are important.** While some of your students will excel in discussion, others may not understand the significance of such exercises. They might be more interested in the “practical” aspects of the class: the information from lectures, the graded homework, and the graded exams. You should explain to your students why participation is important—mainly to assess their fluency in key concepts from class and to reinforce the reflecting and application components of the learning process.

- **Organize students’ ideas to underscore concepts from the course.** You may consider a brainstorming activity, during which you write students’ responses to questions you posed on the board. This activity will acknowledge that students’ ideas are significant and will expose all students to material their peers understand. This exercise will also provide a visual component to class discussion.

- **Allow time to review the outcome of the discussion.** Instructors often do not save enough time to reflect on the material covered in class. You should allow for sufficient time to reflect on the key ideas mentioned during discussion.

- **Assess students’ understanding throughout the semester.** The tendency in some college courses is to provide an immense body of information, then test students on that material midway through the course and again at the end. Yet deep learning of material is more cyclical, and requires ongoing assessment of students’ understanding. This type of formative assessment could include written homework and quizzes, but should also involve classroom discussion of key concepts from the lesson.

- **Offer students actual roles to try out during discussions.** Brookfield (2006) recommends a number of participant roles that students can be asked to assume during
classroom discussions. These roles should rotate often so that the more quiet students will be prompted by a particular role to be more assertive:

- **Problem, Dilemma, or Theme Poser.** This participant has the task of introducing the topic of conversation.

- **Reflective Analyst.** This member keeps a record of the conversation’s development” [and periodically] gives a summary that focuses on shared concerns, issues skirted, and emerging common themes.”

- **Scrounger.** This student listens for helpful resources, suggestions, and tips that participants have voiced as they discuss how to work through a problem or situation [and keeps track of these resources for an end-of-class summary.]

- **Devil’s Advocate.** This participant listens carefully for any emerging consensus. [When consensus has been achieved, this person] formulates and expresses a contrary view [in order to prompt the group to] explore a range of alternative interpretations.

- **Detective.** The detective listens carefully for unacknowledged biases that seem to be emerging in the conversation [and brings these biases] to the group’s attention…. [This student] listens for cultural blindness, gender insensitivity, and comments that ignore variables of power and class.

### Facilitating Laboratory Sessions

Student laboratory classes are an important setting for hands-on learning. This classroom environment allows students to apply broad principles to specific processes and inquiries. Introductory labs will require students to learn basic procedures and fundamental experiments; more advanced labs will give them the opportunity to investigate important questions and test their hypotheses.

The laboratory instructor is an important part of this learning process. You are the one who helps students master specific techniques and carry an investigation to its conclusion. You also ensure that safety procedures are understood and observed and that all materials necessary for the lab are available. You may even help students as they understand important concepts through the practical application of what they have learned in lecture.

The following suggestions will help you as you plan your laboratory teaching:

- **Know the experiment before the lab session, including the theoretical basis and historical background.** If you haven’t carried out this particular experiment before, practice to become familiar with it. Learn the possible pitfalls of the experiment and
even dangers. You should also be able to recognize the most common errors students are likely to make and plan strategies to help them get themselves back on track.

- **Use the same terminology for lab procedures and equipment that your course professor uses so that students are not confused.** Doing so will show that you and your professor are on the same page.

- **Be certain that you assess students’ work for lab safety.** Walk around the laboratory often to ensure that experimental materials are being used appropriately.

- **Match capable students with those who are struggling.** Peers can often explain problems in ways their classmates can understand better. Peers can effectively help you teach the rest of the class.

- **Interact with everyone in the room during the lab period.** Not all students who are struggling will ask for help or even realize they are having trouble. Make sure you visit all stations and give everyone equal opportunities for help. As you interact with students, check on the quality of their written work, drawings, and techniques of data collection. Make suggestions for improvements before the work is handed in for the grade.

- **Lead students to answers rather than telling them answers.** Guide them along with questions that force them to do the steps, such as “and that means?” or “and why do we know that?” Demonstrate techniques or practices; then require them to do the task themselves to arrive at an answer.

- **Encourage students to divide work equally with their partners.** Some students will be willing to shoulder extra work, feeling that if they do it themselves, they can make certain it is completed correctly. However, you should remind them that other students are responsible for working and learning as well.

- **Keep the session running on time and the lab and its equipment organized.** Make note of the condition and quantity of equipment and supplies before and after class, so you can replenish or repair them well in advance of the next session.

- **Help the students stay organized;** remind them occasionally of how much time is left and what aspects of the assignment they absolutely must complete. They should follow all established safety guidelines and rules for cleanup.
Discussion-Oriented Courses and Recitation Sections

In a discussion-oriented course, discussion is used to accomplish the overall educational goals of the class. This approach can be particularly appropriate for courses where analysis, problem-solving, and critical thinking need to be taught and practiced. Having students discuss a reading analytically fosters their own critical reading skills much more effectively than a lecture in which you point out the key points, tensions, and implications.

In a recitation section, discussion is still the business of the class, but the session topics must be integrated with the goals and content of a larger lecture course. Recitation sections provide supplementary instruction for the larger lecture course. For this approach, students gather in smaller groups to practice working through problems or clarifying key concepts. In many courses, the recitation section is also used to provide review and preparation for upcoming exams. You must carefully plan recitation sections to ensure you are meeting the course’s academic goals.

Both types of discussion-based classes must be flexible enough to respond to students’ immediate needs, but a clear focus helps ensure students learn what you intend to teach. The following suggestions should help you plan and conduct a successful discussion-based class.

Begin on a good note

Create a physical environment that is conducive to discussion. Arrange the chairs in a circle, or ask students help you do it at the beginning of class. If your class is small enough, you may be able to have everyone sit around a table. Start discussion on the first day, even if it is only to have students introduce themselves to the rest of the class. You will break the ice and establish an expectation of active discussion.

Forecast the purpose of discussion. Students may consider discussion a waste of time if they are unaware of the larger purpose. Explain both the purpose of discussion, in general, and the goals of the discussion-based class or recitation section. This approach will help maintain students’ focus and interest.

Avoid beginning your discussion with a tough question. Students are not warmed up and may have trouble getting started. Instead, start with activities or easier exercises designed to warm up the class and get students’ brains working so discussion can be productive. Give homework assignments that provide a basis for opening comments and questions in the next class session.

Some instructors ask their students to post reactions to the assigned readings on Blackboard before class. You can provide specific questions for your students to consider, or you can take a less direct approach by asking students to offer their reactions to the reading or lecture material. This approach allows everyone to see what the class thinks about the readings. Some faculty
ask students to respond to their reading assignments writing about an insight, curiosity, or connection that they have made with the material. This open-ended approach offers more freedom of expression than specific questions and is perhaps a more natural way of responding to reading material.

Start class with a review of the last discussion to refresh students’ memories and lay the groundwork for the current class session. Students could also tackle an introductory problem in small groups and then report back to the larger class, leading into a more substantial discussion of the problem. When students begin by working well with a smaller group, they will likely continue working productively for the rest of class.

Decide how much structure the class needs

Determine ahead of time how structured or open-ended a given discussion should be. Are there specific questions which students must address during the class? Do you want to elicit a wide variety of responses on that week’s topic? If you want to keep fairly close control of discussion, prepare questions which have a narrow focus and range of appropriate answers. You may need to assure students who raise interesting but tangential points that these areas will be addressed in another class session or outside of class. If you want a more open-ended session, prepare questions that elicit a wide variety of responses. In either case, decide where you want the discussion to arrive by the end of class and what you will need to do to guide it along toward that goal.

Provide closure to class discussion. Although it may seem obvious to you, students sometimes lose sight of what the discussion has accomplished, particularly if it was fairly unstructured.

Do not hurry to fill the silence

It can be agonizing to ask a question that you were sure would get a lively response, only to be greeted with silence. Learn to wait through that silence. After all, a good question should require a thoughtful answer. Allow students the time they need to think through that answer before raising their hands. If you ask a question and nobody answers, wait for at least 30 seconds to a minute before rephrasing or redirecting. If you constantly jump in when nobody responds, students will learn that they do not have to answer.

Encourage everyone to participate

Get to know your students as individuals. Learn their names, and call them by name. If you show that you are interested in knowing your students, you will find the classroom environment friendlier and discussion livelier. Your positive response will encourage other students to ask and respond to questions.

Recognize that different people have different conversational styles. Some students may prefer an adversarial approach to discussion, such as a debate in which one speaker must try to
persuade others. Other students may prefer a more inclusive and supporting approach, in which many equally valid ideas are discussed. Vary your approaches to accommodate everyone. For example, you can plan formats so that debating takes place one day, brainstorming and idea generation another day.

**Do not rely solely on volunteers for discussion**: you will soon find that you are holding discussion with a small core of students while everyone else watches in silence. Many students who have correct answers or thought-provoking ideas will gladly share them if asked but would never volunteer. Do not embarrass students on whom you call; consider giving them the opportunity to pass on the question if they are uncertain how to respond.

**Understand that some students are uncomfortable speaking up in class.** They may lack confidence, or they may come from cultures where volunteering is seen as too aggressive or conceited. You may want to talk to particularly shy students outside of class on a one-to-one basis to encourage them to participate in class discussion. Alternatively, you can find ways for students to participate other than full-class discussion; dividing the class into small groups or supplementing class discussion with an electronic roundtable can provide less threatening forums for students to share their thoughts. Ask questions—especially to those more reluctant students—that do not require a specific and correct answer. For instance, asking for students’ response to a reading gives them a chance to contribute to class without worrying about the right answer. *(Note: On their syllabi, some instructors encourage students with social anxiety to make an office appointment to discuss how to gain participation points other than speaking in class.)*

**Welcome inadequate or incorrect answers; respond positively by using them to help students move in the right direction.** This approach is especially important if the purpose of your discussion is to review and discover where students are having problems.

If a student asks a question about the course material, you may want to ask the student a few clarifying questions before you launch an answer. Otherwise, you may begin with either too basic or too complicated of an answer. Instead of immediately answering, ask a few question such as “what do you understand?”

**Make certain everyone heard**

In a large classroom, it may be difficult for everyone to hear. Encourage students to speak up if they talk quietly; mumbling or muttering may be a way of masking some sense of insecurity. Try paraphrasing a student’s question in a tone that everyone can hear before answering it or encouraging students to answer.

**Be honest**

**If you do not know an answer, admit it.** Students do not expect you to be infallible, but they do expect you to be honest, and they will be able to detect bluffing easily. If students pose a
tricky question, you should admit that you do not know or to what extent you are unsure of a hunch. Then offer to find out before the next class. Be sure to follow up with this promise.

**Help students articulate what they have learned from discussion**

Many students believe they do not learn from discussion. To help students realize the value of discussion-based learning, spend the last five to ten minutes of class asking students to summarize the main points covered during class. Ask them to point out any issues that need to be covered in the next class.

**Create small groups**

One way to engage your students in the material is to divide the class into small groups to work on tasks. Some small groups work together for only a class period. These might be short-term tasks, such as when students form groups to solve a problem and report back to the class, or when they review one another’s essays and make comments. Small groups may also work on long-term projects, requiring students to work together inside and outside of class to do research, plan a presentation, or write a report. By working together, students use the course information collectively rather than individually.

**Small groups require planning.** Students should understand the purpose of dividing into groups. Take the time to explain very clearly what you expect them to do and how you expect them to do it, as well as why working as a group is more useful than working individually. If groups are working on a long-term project, you can require them to report back periodically during the project to keep you informed of their progress and to help resolve any problems with the task or with group interaction.

**Utilize peer teaching**

**Peer teaching is based on the idea that teaching can be an effective learning strategy.** Thus if you structure activities which require students to teach material to their fellow students, they will learn it better themselves. Of course, you must first provide an activity that helps students become acquainted. Also, always provide written directions for how classmates may provide feedback and well as you expectations for how the peer teaching should be accomplished. Peer teaching opportunities should not pose a threat to the more bashful or intimated students.

**Integrate case studies** *(adapted from *Teaching at Carolina*)

**Case studies are appropriate for learning information analysis, decision-making, or problem solving.** The method, made famous by the Harvard Business School, requires the development of a set of case studies that reflect problems or issues in the course material. For example, in an anthropology course, a case study might describe the artifacts discovered in a real or hypothetical excavation. The students would be expected to infer information about the life
and culture of the people who lived at the site, based on knowledge and techniques they learned from the course. You can divide your class into small groups to work on the case study, and you may circulate among the groups to facilitate the process. Over the semester, you can make case studies more complex and challenging, as students become more knowledgeable with the course content.

The development of case studies for an entire course requires research into the method to master its subtleties. Case studies must provide enough information to elicit analytical thought, but not so much that solutions are obvious. The process of developing effective case studies can be very time-consuming; but once the case studies are written, they may only need a few revisions to run successfully semester after semester. Remember that students need to master a common knowledge base before they will be ready to tackle a case study, and they need to understand the steps in the analytical process they will use. Finally, managing the discussion of case studies requires techniques that differ from generalized discussion methods, and it would be helpful to observe a teacher experienced in the method before trying it yourself.

Simulations provide students with decision-making practice. Since simulations are based on real-life situations, they present students with choices and constraints that reflect real-world problems. For example, a class in political science might simulate a city council meeting to decide on the location of a halfway house for juvenile offenders. Students are given particular roles to play: members of the police department, representatives of neighborhood associations, social workers trying to reintegrate juvenile offenders into society, and others with conflicting concerns. The task facing the class is to come to agreement about the placement of the halfway house. The instructional objectives are to practice negotiation skills, problem solving, and techniques for reaching compromise.

Games and simulations are closely related. For our purposes, games will be defined as activities in which there are winners and losers, definite sets of rules for “moves,” and, often, where props or other paraphernalia are required. Although it is possible to devise games yourself, many instructional games and simulations have been published by organizations involved in education and training (adapted from Teaching at Case Western Reserve).

For more information about instructional games, contact: The University Center for Innovation in Teaching and Education (UCITE) at 368-1224; their website is http://www.case.edu/provost/UCITE/.

Assign short essays

Short essays are particularly good for supplementing large lecture-oriented courses where it is difficult or impossible to get the entire class to participate in discussion. You can write a question on the board and give students five minutes to write about it. You can also announce a question at the end of class and ask students to bring a one-page response to the next class.
Facilitate debates

Debates are useful for dealing with issues where there are different plausible solutions to a problem. Students are put into teams and choose to argue for or against a given proposition; they must then prepare effective arguments to make a case for their own sides and anticipate counter-arguments from their opponents. The class as a whole can vote for the side which was most persuasive, but it may be especially valuable to point out that there is not necessarily a right or wrong side to the argument. Debating requires oral communication skills, which may need to be taught, particularly in introductory classes.

Arrange demonstrations or presentations

When students deliver a speech or demonstrate a procedure in front of the class, they learn not only the subject of their talk, but also the skills required to make such a presentation. This process is excellent preparation for professional careers, where presentations in departmental or company meetings or to the public are frequently required. Presentations can also give students the opportunity to study a wide range of specific topics related to the central theme of the course. You may need to teach oral communication skills, such as preparing a talk which stays within a predetermined time limit, as well as to arrange practice sessions leading up to the main presentation.

Allow students to work at the board

In classes where problem solving is a key component, students may be required to work assigned problems at the board. The teacher or student then reviews each problem as a whole, pointing out strengths as well as errors at every step and asking the class to explain the consequences of each step. Working problems in front of the class complements a lecture that explains the principles of the solution. By actually walking through the process during class, students encounter difficulties and ask for help in a way they may not if working alone on homework.
Works Cited


Additional Resources

Print


Electronic


Grading Essays in the Humanities and Social Sciences: Elective Seminar

Seminar Description

Your role as an instructor includes responding to and evaluating the work of students. In this elective seminar, grading essays in the humanities and social sciences will be discussed. Grading papers is not as simple as jotting your opinion of a student’s work in the margins and calculating a grade. How and where you respond induces students to more carefully craft papers. This seminar will also include discussions of syllabus creation, assignment scaffolding, prompt creation, and rubric use.

Seminar Objectives

- To discuss response and evaluation techniques in the context of humanities and the social sciences
- To understand how to produce developmental feedback on graded materials
Syllabus Creation and the Scaffolding of Writing Assignments

Creating a syllabus is an art and an underappreciated art at that. Before the semester begins, instructors of college courses spend hours crafting their syllabi to include all of the course material they wish to cover and ways to evaluate and stimulate students on their knowledge and expertise within the field. Perhaps the most difficult aspect of drafting a syllabus is this latter component: building writing assignments and papers into the schedule. Naturally, a number of questions must be asked when attempting this task:

- What makes a good prompt for a paper?
- When are the best moments in the semester to assign papers?
- What are the benefits of assigning shorter papers versus longer papers?

While this manual cannot cover all of the intricacies related to writing assignments (the author of this has no knowledge of the theme of your course), this seminar along with the manual can provide some strategies for working paper assignments effectively into your syllabus as well as ways for responding to and evaluating essays appropriately and beneficially for your students.

The Syllabus Draft

First consider when you wish to assign papers. Is your syllabus broken into segments, which naturally suggest times for assignment essays? For example, your syllabus may include three distinct but associated units (World War I, the inter-war period, and World War II). It might be appropriate to assign three longer papers that require more detailed analysis and perhaps resources and research to compose at the culmination of each unit. One paper could ask the students to address a topic or theme they wish to explore about WWI; the second paper could ask the students to consider a problem from the inter-war period; the final paper could explore a number of possibilities: address something from WWII, something that connects the topics from each period together; or something that moves beyond WWII and into the post-war period. The choices are infinite; however, the possibilities need not overwhelm you when creating your syllabus. Again, look at natural divisions already built into your syllabus design.

Another option, especially if your syllabus does not include distinct units, is to think about major moments over the course of the semester. Perhaps your syllabus includes thematic milestones. For example, you may be teaching a course on American literature and while you include a number of non-canonical works, you also include three major novels. The essays you assign might be best placed around these works (even if the assignments include open exploration of other topics from earlier in the semester). You may also choose to work with Case Western Reserve University’s academic calendar and assign your essays to correspond to particular dates: a midterm essay and a final essay with a number of smaller, response papers in between to get your students to generate and process ideas outside of class.

One thing to always remember is that your students are taking other courses. While you cannot consider all potential time crunches, you may wish to assign papers before or after midterms rather than during
midterm week. Moving assignments around will make sure that students are less stressed because they will not have too many large assignments due simultaneously.

Scaffolding

After you have determined the due dates of the essays, it is important to consider building up to the final draft. Composition classes often reference this component as “scaffolding,” and this process includes a number inherent benefits: it breaks up the assignment into manageable pieces; it engenders the idea that writing is a process; and it allows you to see the development of your students’ essays from idea generation to draft. Scaffolding may appear to add more work to your calendar because it will require that you are an active participant in the writing process along with your students. However, this additional work helps to stave off the headaches often produced by inadequate essays that have not seen the light of day nor another reader’s eyes prior to submission. You may also help students avoid plagiarism by looking at rough drafts. While scaffolding seems like more work up front, it saves work in the end because you will be intimately familiar with your students’ writing and topics long before you sit down to grade that final stack of papers.

Some tips to consider:

- Divide your essay assignment into stages in order to reinforce the notion that writing is a process.
- Direct your students produce an outline of their essays—possibly a sentence outline.
- Challenge your students to craft a working thesis statement that they will support with credible research or strong evidence in their essays. Workshop these thesis statements in class with your other students (a very productive exercise as peers can offer critical feedback). Furthermore, explain to your students that thesis statements may change as writers continue to develop their ideas.
- Work with your students to produce a draft of their essay, which should include a working thesis, body paragraphs that support the thesis, and a conclusion.
- Have students craft an introductory paragraph that orients their audience to the topic the essay explores upon the conclusion of the draft.

You may also opt to facilitate extended discussions of body paragraphs and conclusions. It is your syllabus, and you will need to determine the balance between dedicated writing instruction and course material (although both can be done simultaneously).

Creating a Writing Prompt

Once a schedule has been established, it is time to think about creating the writing assignment. This is often done by writing a prompt that includes the topic, the expectations (including page
length and number of sources), due dates, and a potential example. Prompts should be distributed and covered in class to allow for detailed explanation and questions.

To create a good prompt, we recommend thinking through a series of questions. These questions will allow for easier evaluation and feedback generation and will assist in making sure that the prompt is clear for your students. What follows is a heuristic adapted from an adaptation of Erika Lindemann’s *Rhetoric for Writing Teachers* (1982). The adaptation is taken from Edward M. White’s *Assigning, Responding, Evaluation: A Writing Teacher’s Guide* (1992).

- What do I want the students to do? Is it worth doing? Why? Is it interesting and appropriate? What will it teach the students? Specifically? How does it fit my objectives at this point in the course? What will the assignment tell me? What is being assessed? Does the task have meaning outside as well as inside the class setting? Have I given enough class time to discussion of these goals?
- How do I want the students to do the assignment? Are students working alone or together? In what ways will they practice prewriting, writing, revising? Have I given enough information about what I want so students can make effective choices about subject, purpose, form, mode, and tone? Have I given enough information about required length and about the use of sources? Have I prepared and distributed a written assignment with clear directions? Are good examples appropriate? Have I given enough class time to discussion of these procedures?
- For whom are the students writing? Who is the audience? If the audience is the teacher, do the students really know who the teacher is and what can be assumed? Are there ways and reasons to expand the audience beyond the teacher? Have I given enough class time to discussion of audience?
- When will students do the assignment? How does the assignment relate to what comes before and after it in the course? Is the assignment sequenced to give enough time for prewriting, writing, revision, and editing? How much time in and outside of class will students need? To what extend will I guide and grade the students’ work? What deadlines (and penalties) do I want to set for collecting papers, or various stages of the project? Have I given enough class time to discussion of the writing process?
- What will I do with the assignment? How will I evaluate the work? What constitutes a successful response to the assignment? Will other students or the writer have a say in evaluating the paper? Does the grading system encourage revision? Have I attempted to write the paper myself? What problems did I encounter? How can the assignment be clarified or otherwise improved? Have I discusses evaluation criteria with the students?

These series of questions might seem overly taxing; however, in order to create a valuable writing assignment for your students and your course, you will need to consider not just where the assignment fits into the semester’s schedule but also what you want the assignment to do. Is the assignment an analysis? Original research? A response? A Report? Creative? All of these questions require an answer before you begin to think about evaluation and response. Once you address these questions, evaluation and response are much easier to perform.
Evaluation

What Makes a Good Paper?

If you create a good assignment sheet with a thoughtful and well-planned prompt, then a good paper will exhibit those qualities you ask for in the prompt. Good prompts also make it more likely that your students will be engaged with the material which will make your job responding and evaluating their work more enjoyable. Remember, if you do not enjoy the question you are asking students to respond to or think about, then it is likely that your students will not enjoy answering or thinking about that question.

If you have created a good prompt, then it is equally as important to craft a rubric for evaluating how well your students have fulfilled the tasks of the writing assignment. Rubrics are invaluable guides for your students when they begin the writing process. They will know what you are looking for and how you will evaluate their work. Rubrics help to make the grading process of written assignments less subjective for the students. Below is a rubric for a writing assignment in English adapted from Sophie McClennen’s “General Evaluation Rubric for Papers” (2004), http://www.personal.psu.edu/users/s/a/sam50/rubric.htm.

<table>
<thead>
<tr>
<th></th>
<th>Superior Paper (A)</th>
<th>Good Paper (B)</th>
<th>Average Paper (C)</th>
<th>Below Average Paper (D)</th>
<th>Failing Paper (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis</td>
<td>Easily identifiable, plausible, novel, sophisticated, insightful, crystal clear. Connects well with paper title.</td>
<td>Promising, but may be slightly unclear, or lacking in insight or originality. Paper title does not connect as well with thesis or is not as interesting.</td>
<td>Difficult to identify at all, may be bland restatement of obvious point.</td>
<td>Problems more serious than Average paper.</td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>Evident, understandable, appropriate for thesis. Excellent transitions from point to point. Paragraphs support solid topic sentences.</td>
<td>Generally clear and appropriate, though may wander occasionally. May have a few unclear transitions, or a few paragraphs without strong topic sentences.</td>
<td>Unclear, often because thesis is weak or non-existent. Transitions confusing and unclear. Few topic sentences.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of Evidence</td>
<td>Primary source information used to buttress every point with at least one example. Examples support mini-thesis and fit within</td>
<td>Examples used to support most points. Some evidence does not support point, or may appear where inappropriate. Quote</td>
<td>Very few or very weak examples. General failure to support statements, or evidence seems to support no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>Author clearly relates evidence to &quot;mini-thesis&quot; (topic sentence); analysis is fresh and exciting, posing new ways to think of the material. Work displays critical thinking and avoids simplistic description or summary of information.</td>
<td>Evidence often related to mini-thesis, though links perhaps not very clear. Some description, but more critical thinking.</td>
<td>Very little or very weak attempt to relate evidence to argument; may be no identifiable argument, or no evidence to relate it to. More description than critical thinking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logic and Argumentation</td>
<td>All ideas in the paper flow logically; the argument is identifiable, reasonable, and sound. Author anticipates and successfully defuses counter-arguments; makes novel connections to outside material (from other parts of the class, or other classes), which illuminate thesis. Creates appropriate college level, academic tone.</td>
<td>Argument of paper is clear, usually flows logically and makes sense. Some evidence that counter-arguments acknowledged, though perhaps not addressed. Occasional insightful connections to outside material made. Mostly creates appropriate college level, academic tone.</td>
<td>Ideas do not flow at all, usually because there is no argument to support. Simplistic view of topic; no effort to grasp possible alternative views. Does not create appropriate college level, academic tone, and has informal language or inappropriate slang.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanics</td>
<td>Sentence structure, grammar, and diction excellent; correct use of quotation material into sentences. Demonstrates a solid understanding of the ideas in the assigned reading and critically evaluates/responds to those ideas in an analytical, persuasive manner.</td>
<td>Sentence structure, grammar, and diction strong despite</td>
<td>Big problems in sentence structure, grammar, and diction.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rubrics are valuable templates to generate feedback and evaluation when looking at papers. Some rubrics, such as the one above, incorporate letter grades which are then assigned to the different components of a students work. Therefore, a student can earn a sampling of A and B marks within the rubric before the instructor determines the final average. Other rubrics break down individual sections into points and then the points are added and divided by the points possible. In these types of rubrics, instructors determine deductions when a student’s paper fails to meet the highest level of competency or expectation for a particular category.

**Written Evaluations and Response**

While rubrics are great for evaluating the overall scope of a paper, other forms of response and evaluation are often necessary to inform and further instruct your students about both positive and negative aspects of their work. Think back to the dreaded red pen of your youth (or the myth of the red pen). While we do not suggest haunting your students’ papers in this manner, marginal comments can provide invaluable pieces of feedback. Your previous teachers and college instructors most likely used a similar method when responding to your work. They may have written comments in the margins; they may have jotted notes in text; they may have made suggestions and corrections; they may also have written a summary paragraph detailing your work and why you received a particular grade. However, no matter how you respond (one or all of the above methods), feedback should be given in order to improve the writing of your students. Simply providing a grade does little to give your students the tools necessary to produce better writing.

**Marginal Comments**

Writing comments in the margins is one way to respond to students’ papers in-text. Marginal comments provide context. For example, if your student has an unclear thesis statement, a marginal comment next to the thesis draws attention to the problem. Furthermore, issues like clarity, word choice, grammar, or larger concerns related to argument can be illuminated and expanded upon in the margin. The following example shows effective use of marginal comments:
The marginal comments here do two things: they provide praise when necessary, and they request that the author of this paper clarify specific moments. The work of this student is good, and you need to make sure that the student is aware of this (beyond just providing an excellent final grade). However, all good papers have moments in them that can use further explanation or clarification. The commenter here makes note of those moments. Questions are used as a way of leading the student in the direction the commenter finds most appropriate for an audience. The use of questions allows the student to process and critically engage with the material in a more substantial manner. If the commenter were to simply direct the student to an answer, then the revision process would be far less beneficial. Think of marginal comments as having a
conversation with a student. You have conversations with students about their work in class and during office hours. Comments on a paper allow you to respond in a similar manner.

Just remember, how you comment on a paper sets a tone for the relationship between you and the student. Make sure that your marginal comments do not take away from the student’s work and their authorship of the piece. White (1992) requests that all instructors stop and ask whether “we [are] taking ownership of the paper away from the student by our marking and asking the student to say what we want instead of what he or she wants?” (p. 94).

In-text Comments

In-text comments are often used to highlight syntactic and sentence level concerns. Comma errors, spelling, and subject/verb agreement are all examples of errors commonly found in students’ papers. It can be important to note these moments in the text; however, a word of caution: make sure to not overwhelm a student with grammatical corrections. Just as it can be overwhelming to see a paper covered in comments in the margins, it is equally as problematic to see a paper marked with concerns over grammar. Here are a few tips to think about when working in-text:

- Consider the nature of the assignment: is the paper a draft? Is the paper a final version? Do you allow for revision? Is the assignment less substantial (a response, a blog post, a paragraph for homework)? The assignment should dictate your level of response.
- Decide the amount of engagement necessary: would you respond with the same level of interest for a blog post and a final research paper?

Summary Comments

Another way to comment on students’ writing is through a longer summary at the conclusion of the paper. Often, summary comments replace longer marginal comments or supplement a mixture of marginal and in text commentary. Summary comments should consider the paper as a whole and begin with what those who study composition pedagogy refer to as “the praise sandwich”:

- Begin with a sentence or two discussing what the student has done well in the paper: “Your paper, Title, explores the correlation between age and political affiliation. The paper is well-researched, well-organized, and the argument you make is quite good.”
- Note moments in the paper that could stand improvement and revision: “Although the paper as a whole is good, your thesis statement is underdeveloped. By the end of the paper, you seem to be arguing for something slightly different than when you introduced your topic.”
- Close your summary comment with more praise and then provide a grade for the student.
Conclusion

It is important that you determine what style of commentary works best for you and for your students. Some students will respond well to particular types of comments, while other students may find one form of commentary less productive. You need to evaluate the needs of your students and their writing and take note when providing feedback. No matter your style of commentary, it is important to be consistent, fair, and as thorough as an assignment demands.

Additional Resources

Consider the following resources for further insight into grading essays in the humanities and social sciences:

Print


Electronic


Grading in the Sciences (Elective Seminar)

“On homework assignments and exams, I do not look for a regurgitation of what was taught in lecture or that the correct formula could be found in the text. Rather, I am more interested in the thought process and logic that the student applies to solve problems.”

~ Professor Donald L. Feke, Chemical Engineering

Seminar Description

Experienced faculty from biology and physics offer their best strategies for grading homework, exams, and lab reports, so that students have positive, yet, critical feedback on what they have done well and what they still need to work on for the next graded assignment.

Seminar Objectives

- To practice grading techniques in the context of science and engineering teaching assistant roles.
- To understand how to provide developmental feedback on graded materials.
Planning for Evaluation and Grading

Many professors claim they love to teach but are uncomfortable with grading; they dislike criticizing students’ work or delivering the bad news of a low grade. It may help to rethink what grading is all about. Done badly, grading is a way to distinguish those who succeed from those who fail and to wash one’s hands of the results. However, done well, grading is a way to honestly assess students’ progress and help them learn to judge their own work with accuracy and discernment. Evaluation of work can also help an instructor decide whether to change approaches or to alter the course’s pace.

Evaluation is the act of assessing progress or measuring achievement against certain norms or standards. For instance, you may evaluate the effectiveness of students’ reading by quizzing them on the text. Grading is a more formalized expression of that evaluation, assigning numbers or letters to the work students have done.

The following recommendations will help you assess your students fairly and accurately:

Build evaluation into the course

- Do not grade as if it is a tacked-on final process. Doing so can give students the impression that you think one way in the classroom and a completely different way when grading. When you plan your course, build in different types of evaluation as you go along, both graded and non-graded. Acquaint students with receiving non-graded assessments that help them evaluate according to set criteria while leaving room for subsequent improvement.

- Construct assignments that require students to demonstrate what you are trying to teach. Make sure that the nature of your homework, project, or exam actually requires demonstration of the skills you consider most important.

- Consider, too, how valid and reliable your assignments are. As described in Teaching at Carolina: A Handbook for Instructors (1991), the validity of an assignment is measured by how well it samples the range of knowledge, skills, and abilities students are supposed to acquire in the period being tested. An exam that focuses on one week’s worth of material out of five is not a valid assessment of those five weeks, even if it produces a reasonable distribution of grades; it neglects eighty percent of the subject matter students worked on.

- Measure the reliability of an assignment by how consistently the results of the graded homework, tests, and papers distinguish students who are performing at different levels. If everyone gets A’s, you do not have a reliable indication of what students have
really mastered. Similarly, if a question is vague or subjective enough that two people can give wildly different grades to the same answer, the question is not reliable.

- Write your tests and assignments early to ensure reliability and validity. Writing a good test or assignment takes time and thought, while a hastily written test or assignment can cause problems.

**Distribute evaluated assignments throughout the semester**

Many courses feature just a few large graded elements: a midterm exam, a final exam, and perhaps a paper. This approach may sound attractive at the beginning of the semester, as you imagine only having to grade a few times. However, if you do not have a formally evaluated assignment before the middle of the term, you make it difficult for students to assess their own progress and for you to know how well students understand what you are trying to teach them. Discovering halfway through the semester that half of the class does not understand the concepts will not leave you much time to find out why. Consider the following approach to evaluated assignments:

- Schedule frequent measurements of students’ understanding. These do not have to be elaborate graded assignments: you can use quizzes, class participation exercises, or brief response papers to find out how students are handling the material. A physics class, for example, can use problem sets or pop quizzes to test students’ ability to apply the appropriate mathematical principles for determining angular momentum. Just make certain that students work with the material as early and as often as possible.

**Clarify your grading criteria for the class**

- Make it clear to students how you evaluate work, and how that evaluation fits your larger course goals. If you have a grading rubric, distribute it and discuss it. Do practice grading of sample papers or problems. By putting the students in the position of grading work according to the standards you explain, you help them more fully understand those standards and apply them to their own work.

- Test your exams or assignments before giving them to students. By the time you have constructed an assignment, you may be very familiar with it and, therefore, unable to spot poorly worded questions or unevenly weighted sections. Work the problems yourself, and if possible, ask fellow TAs to review tests or assignments. Ask how a reasonable student would interpret what you have written. Are the instructions clear and complete? Can the assignment be completed in the time frame given? Are any sections more difficult than others, and if so, are they weighted accordingly? If you have given a choice of questions, is one distinctly more difficult than the rest? Is it possible to
give a reasonable answer to a question which is not the answer you had in mind? Never give an assignment to which you have not thought through a valid response.

- Ensure that each assignment, quiz, test, or paper has clear instructions, deadlines, time limitations, and point breakdowns, as well as criteria for completion. If you have format requirements, such as using pencil or pen, writing in bluebooks, or following certain style guides or procedures, relay that information in the instructions, and indicate how much weight you will give those elements when grading.

**Keep accurate records throughout the term**

Students should be able to assess their overall grades as they go along, and so should you—neither of you should be surprised by a grade near the end. Each time you grade an assignment, reassess overall grades. Also, encourage students to take responsibility for monitoring their grades rather than relying on you.

**Make the evaluation process a part of the learning process**

Once an assignment is completed and graded, you should not consider it finished. Otherwise, the student will glance quickly at the bottom line grade to make sure it is satisfactory, then stuff it in a folder or backpack and forget about it. That’s not what you want them to do with the material! Instead, take the opportunity when returning assignments to review how students performed and make explicit connections with work being done in the rest of the course. Ask students who did well to demonstrate or read aloud excerpts from their work; go over common problems as a group to help students understand what went wrong.

Some instructors use grades to shock students; they construct exams that push the students to take what has been learned so far in the course and move to the next level, but they do not prepare students for this step before the exam. This strategy is usually counterproductive. Students are certainly shocked, but they are not necessarily motivated to learn. Instead, construct assignments that require students to build on what they have learned, while also demonstrating their command of the material.
Determining Grading Criteria

Grading Policy of Case Western Reserve University

The General Bulletin provides a full explanation of the university’s grading policy. The following definitions are given to letter grades A-F:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>C</td>
<td>Fair</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
</tr>
</tbody>
</table>

There are other grades indicating incompletes, repeats, or the pass/no pass option, but for the most part these are the five grades with which you will work. You should take these definitions seriously. Many students entering your classes will have made easy A’s in high school and will expect to do the same in college; you should explain to them that an A represents truly excellent work and not just satisfactory completion of the basic elements of the assignment.

Pluses and minuses

In the University’s grade point system, pluses and minuses are not attached to grades except in the schools of Law and Dentistry. While you are welcome to use pluses and minuses to evaluate work in your course throughout the semester, the final grades you submit will ultimately appear on student transcripts without those qualifiers.

Department grading policies

If your department has a grading rubric for your course or for all courses in your subject, find it and familiarize yourself with it.

Familiarizing your students with your grading criteria

Include evaluation criteria in your syllabus, and explain it to students. Be absolutely clear about what makes up a course grade. What are basic standards of achievement? What weight does each class assignment get? Where do attendance, revision, extra credit, effort, or improvement fit in? How will you treat partial or incomplete work? How much does showing all work count toward the answer? Define just what you mean by class participation if it is something you choose to grade. When is it acceptable for students to work in groups, and when must they work individually? How will you deal with plagiarism or cheating?

Whatever your standards are, make certain they are consistent, fair, and applicable to the work performed for the class.
The First Year Grading Policy

For the first two semesters of enrollment, matriculated students who are beginning their college studies may withdraw from a course at any time during the semester, but no later than the last day of classes. Any course for which a grade of W is assigned will not be posted on the official transcript. This policy is not available for transfer students and does not apply to the summer session.

Grading Methods

Standards of comparison

All grading requires comparison of some kind. The two main kinds are comparison with fellow students (also known as grading on a curve) and comparison with set standards. Each method reflects a certain philosophy about grading, and it will be up to you, in conjunction with your department, to decide which philosophy is most appropriate for your course. Whichever you choose, apply it to the course as a whole. Do not mix methods, and make it clear to students how their grade is being determined at the outset of the semester.

Comparison with fellow students’ performance

This method assigns grades along a spectrum determined by the performance of a relevant group of students. Cutoff points for A’s or C’s are not determined by absolute criteria, but by a reasonable distribution within the class. Possible comparison groups are all students taking a particular course one semester or all students who have ever taken this particular course from this instructor. The purpose of this method is to foster some competition among students, for it rewards students whose performance is outstanding compared to that of their peers. However, grade standards can rise or fall with the aptitude or ineptitude of a given class, as the distribution is spread among higher or lower objective scores.

Non-comparison with fellow students’ performance

The purpose of this method is to measure students’ performance against fixed, objective criteria. There are no quotas in each grade category, because theoretically, all students could earn A’s or could fail, according to the criteria. Thus, standards of performance remain uniform from class to class unless the criteria themselves are revised. Additionally, grades reflect students’ objectively measured achievement of course goals rather than their performance relative to fellow students. This method de-emphasizes student competition and focuses instead on the material.
Answer key

This type of grading scale of the non-comparison method is typical for grading based in problem-solving disciplines. Although homework and exams may involve an evaluation regarding the quality of how the student arrived at the answer, the Answer Key is mostly clear-cut, with a minimal amount variation in correct answers.

Rubric

A rubric is typical for grading of short answers and essays, often rooted in humanities and social science disciplines. It is a form of the Primary Trait Analysis, which is criterion-referenced scoring. A Rubric provides a roadmap for a range of acceptable answers and criterion for evaluating the quality of those answers. Often a great amount of gray area exists for assignments and exams requiring a Rubric, but a well-defined Rubric can assist in evaluating students’ work. You may also consider sharing a general Rubric with your students, so they are aware of how you will be evaluating their work.

Planning ahead to grade

- Allow a reasonable amount of time to grade, and be realistic about what you can do. Can you really grade 20 problem sets on a single Saturday afternoon? Probably not, and if you try, you may be exhausted and irritated by the time you grade the last problem. Allow for undistracted time and necessary rest breaks as you would for any other important task. Break your work up into manageable chunks—nothing can put you in a worse mood for grading than looking at a teetering tower of exams and thinking you have to push through them all at one sitting. If you grade as a group and need to hold a marathon session, build in breaks, snacks, and anything else needed to keep the mood light and your performance optimal.

- Make comments as you grade, but record tentative grades on a separate sheet of paper. When you are done, review assignments to check that your grading has remained consistent. Was that early $B$ really comparable to the $B$ you awarded right at the end? Once you are satisfied that all grades are accurate, record them.

- Set aside a paper or exam and return to it at a later time if you have doubts about the grade it deserves. A fresh perspective may help you see the problem, or you may realize that you need the advice of a fellow TA or professor on a question of procedure or academic honesty.
Avoiding bias

Bias can creep into your grading when you inadvertently weigh what you know about the student as an individual into your evaluation of a paper or examination. Certain kinds of discrimination, such as on the basis of race, religion, age, sex, color, disability, sexual orientation, and national or ethnic origin are a violation of the University’s anti-discrimination policy and may be a violation of state or federal laws. Other biases can arise from simple personality affinities or conflicts, your personal frustration with a student’s attitude expressed in class, or your desire to encourage a student who is struggling with the material.

If you are worried about subjectivity, separate the students’ names from their assignments when grading. If you cannot manage to disguise the student’s identity from yourself, ask a colleague who does not know the student to read the work anonymously and assess the accuracy of your grade. Remind yourself that the students you do not like can still earn A’s and students you enjoy can still do poorly. It is your job to evaluate their work accurately, not to commiserate.

Providing helpful feedback

When students receive graded work, they should see more than a grade; they should be given written information about their performance. It is frustrating to receive a paper with just a letter grade of C. With multiple-choice tests, it is fairly easy to indicate which answers were correct and which were missed, but work requiring problem solving, writing, or performance of routines should be returned with a grade and some commentary about the work. Consider the following feedback strategies:

- Keep comments positive. Point out what you like as well as what is flawed; explain where problems lie and point to solutions rather than just noting errors. For papers or pieces longer than a page or two, sum up with general remarks, and start them off positively. Make sure your remarks are tactful so you do not risk hurting the student’s feelings when pointing out problems.

- Interject frequent but succinct notes to indicate both strengths and weaknesses. While comments should be sufficient to indicate the basis of the grade, they should not be excessive. Too many comments in the margin only overwhelm and frustrate students.

- Conduct a class session to avoid writing the same corrections on dozens of pages if the whole class makes similar mistakes. (You might also create a solution key.) If one student has particular problems, arrange a conference to analyze the work and to suggest appropriate outside resources, such as the Writing Resource Center (WRC) or...
the tutoring programs offered by Educational Services for Students (ESS). Finally, offer a summary of your positive and constructive comments to that you ensure that the student takes away the message you intended, which should be positive, helpful commentary that encourages the student to try the next graded activity.

**Section and Cross-Section Grading**

Grading in a course that has many sections poses special problems. Each instructor and grader must agree upon uniform criteria and methods for grading large numbers of students working with different instructors, and must make certain students perceive that uniformity. Students become frustrated and angry if they think one section is being treated more leniently than another section—especially if they are in the section being judged by stricter criteria. To avoid discrepancies between course sections, consider the following strategies:

- Meet with all instructors, TAs, and relevant personnel before the semester begins to establish standards and practices. Will the class be graded on a curve or according to set criteria? Does everyone agree on what the criteria will be? Whatever variation is permitted among sections, each should require the same general kinds of assignments and total quantity of work and should judge all work by a single approved standard.

- Schedule grading workshops (where copies of papers are read and graded by all course instructors/TAs) to ensure fairness among sections. Some departments grade multi-section exams by dividing the work among graders by question: one person grades all of question 1, another grades all of question 2, and so on. If the course is team-taught or has just one or two TAs, you may choose to divide work up equally and grade it, then trade it for review.

- Return graded assignments as a unified team. The professor should never belittle the TA’s effort, and TAs should never denigrate the professor’s work. If students sense division, they may exploit it; certainly they will have less confidence in your ability to conduct the class together.

**Grading Group Projects/Group Lab Reports**

Many classes now incorporate group projects or group lab reports that help students learn how to work in a team atmosphere. While this approach is good in theory, the day-to-day reality of this tactic can be a nightmare for conscientious students who may end up doing most of the work because their teammates have not learned effective time management. To avoid grading a team paper or project that may have been essentially written by one or two teammates rather than the entire team, try the following approaches:
• Have the teams create a team charter at the beginning of the project that asks team members to secure this information: contact information, meeting times, a tentative schedule on how to approach the project, and strategies for handling team conflict.
• Require that the teams submit weekly logs on which they record their progress and any issues that they are having with the team as well as their ways for responding to team conflict.
• Direct students to turn in a rough draft of the project about a week before the project is due. On that draft, each team member should initial the portion contributed to the entire project along with a list of questions that the team members may have about the project and/or their rough draft. Award a portion of the total points designated for this project to this rough draft. Make yourself available to answer questions about the rough draft either in class and/or during office hours. Read the drafts for overall issues and provide written feedback.
• For the final draft, ask students, again, to initial their contributions and sign a statement that all teammates contributed equally to the completion of the project. Teams may also be required to provide individual team evaluations that be submitted anonymously or as a signed assessment. On the team evaluation, students are asked to rate their own performance as well as their teammates.
• Decide before giving a team project whether the teammates will be given one group grade or individual grades. (If you want to assess individual effort, you may assign a specific percentage of the grade for the overall project and then a particular percentage for individual effort.)

Using the process described above, you may lessen the pressure for one or two teammates to produce the entire project because their teammates are not waiting until the last moment to submit their portions of the work.

Defending and Justifying a Grade

Despite all your careful planning and checking, a student might challenge the grade you have marked or ask for a more complete explanation than you have provided. First, do not panic. This issue is not necessarily indicative of your grading policy or practice, or a sign that your students are about to rise up in revolt. There are three distinct possibilities for such dissatisfaction, and you will need to determine as calmly and fairly as you can which applies.

• **You have made a mistake in grading.** TAs, as well as seasoned faculty, are capable of misreading an answer or being too hurried or too tired to think properly at the end of a long grading session. Mistakes happen, and when they do, you should acknowledge and correct them.

• **The student misunderstands your comments or criteria or did not completely understand the assignment.** You can usually resolve this situation by going through
the exam or assignment, item by item, and discussing problems and strengths until you reach a mutual understanding.

- **The student understands why you graded as you did but disagrees with your criteria or procedure.** This disagreement can range in degree from feeling that a particular question or assignment should be weighted differently to a total philosophical impasse about grading in your course. If you cannot reach a mutually satisfactory arrangement in conference, send the student to the class professor or the faculty member in charge of the course.

**Principles to Keep in Mind When Reviewing Grades**

**You do not have to give an immediate answer.**

If students approach you at the end of class on the day you have returned assignments, do not feel you have to resolve all appeals before you leave the classroom. Encourage students to come to your office hours or arrange conferences with you. Ask them to let you take the paper and review it before you meet. After all, you do not want to give it a cursory assessment. Some professors adhere to a 24-hour policy for questions about exams. In other words, students may not speak with their professors about exam grades until the next day in order to defuse any emotional response to their grades. Indicating the points taken off for each question on a students’ paper may also help eliminate issues. Finally, many professors make photocopies of the exams before returning them and they let students know about this policy. This strategy may eliminate students from feeling so much pressure about their grades that they are willing to be less than ethical about their complaints to you about their exams.

**You can review the entire assignment, not just the question or section with which the student is dissatisfied.**

Many departments announce that when a grade is questioned, the whole exam or paper will be reviewed, and scores may go down as well as up.

**If you can defend and explain the grade, stand firm.**

While you do not want to be so rigid that you cling to mistakes you made, you also do not want the word to spread that you can be argued into improving a grade. Explain as fully as you can what the grade was based upon and why you feel your assessment is correct. If you have doubts about grading a particular exam or paper, consult with a colleague or supervisor, providing a copy of the item in question with the student’s name removed to preserve confidentiality.
Work Cited


Additional Resources

Print


Electronic


Challenging Moments with Students: Elective Seminar

Seminar Description

In this interactive seminar, you will learn the best practices for assisting and teaching difficult students. Furthermore, you will hear from your peers with experience in the classroom about their own experiences and what they have learned.

Seminar Objectives

- To understand how to respond in a positive manner when students are upset and/or disruptive in the classroom
- To learn about campus resources that are available for students experiencing challenges that affect their classroom behavior or course performance
Preparing for Student Challenges

As a Teaching Assistant, you will have the opportunity to work with undergraduate students who bring a variety of attitudes and beliefs to the classroom. While you should expect your students to demonstrate proper classroom decorum, you might also encounter students whose behavior is inappropriate for a college academic setting. For example, a student may refuse to complete assigned classwork, come to class tardy or leave class early, or become combative if he or she is upset about a grade. How should you respond to such situations? This document offers strategies for handling challenging moments with students in a productive manner.

Classroom Management

(Adapted from Svinicki’s and McKeachie’s McKeachie’s Teaching Tips (2013))

At the beginning of each semester, be sure to clearly articulate your classroom protocols in your course syllabus, and reemphasize those policies on the first day of class. These practices should assist you in establishing a comfortable and well-run classroom environment. Unfortunately, you might encounter students who undermine your policies. Consider the following classroom management challenges you may encounter, as well as strategies for overcoming them:

Inattentive students

Despite your best efforts to create an engaging lecture or facilitate a stimulating, seminar-style discussion, you might notice that a student has fallen asleep, or that a group or students are holding side conversations. In responding to such situations, consider the following practices:

- Re-think the material you are presenting. Are students inattentive because the lecture material is either too challenging or too easy? Does the lecture topic make students uncomfortable? You may need to adjust your either your topic or your approach to presenting the material if you find that students are not responding in the desired manner.

- Divide the class into small groups to work on a specific task. A small group environment may encourage students to engage with the material and remain focused throughout the class period. Be sure to move around the room during group tasks to ensure that students are completing the work you have assigned.

- Assign short writing prompts (i.e. a one-minute paper) and call on inattentive students to offer their responses. Doing so will show that you are attentive to that part of the classroom. Furthermore, short writing assignments push students to make a productive contribution to the class.
• Arrange a meeting with your inattentive student(s) outside of class. During this meeting, ask your students to articulate how they feel about the course and/or the material. Express your concerns about their inattentiveness, and brainstorm ways in which you might better engage the students in your class.

**Argumentative students**

You may encounter students who challenge everything you or other students say in class. Some argumentative students may simply be emotionally invested in the topic of discussion, while others seek to challenge your authority. The following strategies should assist you in working with argumentative students:

• Use student disagreements as opportunities to model scholarly debate. Listen carefully to what the student is saying, reflect on his or her assertions, respond in a civil manner with your own interpretation of the material being discussed, and initiate a compromise if necessary. If you do not talk over argumentative students or dismiss their ideas, the students may mimic your behavior.

• Consider inviting other students in the class to offer their ideas about the discussion topic. Hearing from peers may help argumentative students see alternative perspectives regarding the material. List comments on the board to ensure that all students’ ideas are acknowledged.

• Ask verbally combative students to meet with you after class. Explain to the students that their opinions are valued, but add that there are ways to articulate one’s opinions without hostility toward you or other students.

**Students who arrive to class unprepared**

For a variety of reasons, students may come to class without having completed the assigned reading, without laboratory materials, or without writing and note-taking supplies. Below are some strategies for addressing unprepared students.

• Stress, from the first day of class, that you expect students to complete all assigned reading prior to class. Consider giving unannounced quizzes throughout the semester in order to reinforce the importance of keeping up with the assigned reading.

• Conclude each class by giving students either a set of questions to consider or a task to complete prior to the next class. Doing so not only enhances the continuity of your course, but shows students that they will be expected to bring ideas to each class.
Students who are uncivil

Unfortunately, you may encounter students who is disrespectful toward you or other students in your class. The following strategies should assist you in working with uncivil students and preventing disruptions:

- Create a statement of unacceptable and/or acceptable behaviors for your classroom. Not only should you include this statement in your course syllabus, but you should reinforce the statement on the first day of class. Some instructors ask students to sign documents on the first day of class that attest to their understanding of course policies and proper decorum.

- Arrange the seating (if possible) so there is not much distance between you and the students, and so you may move freely around the room. Less distance between you and your students often curtails disruptive behavior.

- Speak with more experienced colleagues about how to handle disruptive students. Veteran Teaching Assistants and seasoned professors will often have tips for dealing with difficult classroom management situations.

- Ask uncivil students to leave the room if you sense that they are creating an uncomfortable classroom environment for you and other students. Calmly explain to those students why they are being asked to leave, state that you will contact them via email to discuss the situation.

- Contact Case Western Reserve University’s Police and Security Services (216-368-3333) if you feel that uncivil students may pose a threat to your safety or the wellbeing of their classmates. Consider discreetly handing a note to a trustworthy student that asks them to leave the room and contact security if you sense that tensions with uncivil students may escalate.

Emotional Challenges

At times, challenging students may be combatting emotional issues related to either their academic performance or personal lives. As a Teaching Assistant, you may come across the following emotional challenges in your courses:

Angry students

Some students may be angry at you due to dissatisfaction with grades or comments made in class to which they disagree. Moreover, students may choose to express their anger inside or
outside of class. Svinicki and McKeachie (2013) offer the following suggestions for handling angry students:

- Attempt to become better acquainted with a student who is prone to anger. Consider setting up a meeting with that student to discuss a writing assignment he or she completed. Perhaps ask a small group of students—including the hostile student—to meet with you in order to make the atmosphere less threatening. During the meeting, ask the student to explain how he or she feels about the course, as well as what topics might be of interest. This conversation will show the student that you are committed to ensuring that he or she gets the most out of your course.

- Listen to the student in a respectful manner as your meeting progresses. The student needs to feel that you have really heard his or her concerns. Do not interrupt unless you need to seek an immediate clarification of a statement. Nod your head, and use other positive body language, which indicates you are sincerely interested in what the student has to say.

- Restate the issues, asking for clarification when necessary. It is your job to make sure the student feels you have listened with empathy and interest, and you clearly understand the issues.

- Respond to the issues in a firm, professional manner with a willingness to adjust a policy, a grade, or a response to an assignment when a student’s concern is legitimate.

**Discouraged students**

For first-year students, in particular, the demands of college courses are often greater than what they have previously experienced. If you notice that a student appears discouraged, try using the following tips:

- Refer the student to Educational Services for Students (ESS). Often, a student’s perspective on a course may change with new study skills and time management techniques.

- Offer both positive and constructive feedback on student work. While you should point out areas of an assignment that could use improvement, you should also note things the student did well in order to show that he or she is achieving some success in your course.

- Meet with the student during your office hours, and invite the student to express the difficulties he or she is having with your course. Suggest strategies the student might employ to be successful, and point the student to tutoring services available through ESS if you think extra assistance would be appropriate.
• Consider inviting students from the previous year or semester to come to your class and discuss any frustration or self-doubt they experienced, as well as ways they overcame their difficulties.

Dealing with Psychological Problems

A student’s emotional outbursts, belligerence, or moodiness may lead you to suspect that the student might benefit from psychological counseling. Consider asking a student to meet with you during your office hours to gain a better sense of how things are going outside of class. If you suspect that a student would benefit from professional help contact the University Counseling Services (UCS) Faculty & Staff Consultation Service at (216) 368-5872.

UCS outlines three levels of severity for distressed students:

• **Level 1: Support, Understanding & Challenges – General Counseling Referral to Helping Resources**
  When a student illustrates signs of mild depression, anxiety, moodiness, lethargy or other indications of mild emotional distress:
  
  Listen and offer support. Promote an open discussion to create an exchange of ideas and possible solutions. Assist in helping the student acquire accurate information and resources for additional help, for example, a referral to Educational Services for Students for tutoring or a Resident Assistant for more personal support. Challenge negative beliefs or misinformation and encourage continued dialogue with you and/or other helping resources around campus.

• **Level 2: Guidance and Assistance to Helping Resources – UCS Faculty & Staff Consultation**
  When a student illustrates or discloses signs of moderate and/or more long-term symptoms of depression, anxiety, moodiness, lethargy, poor concentration, absenteeism, alcohol or drug use, etc:
  
  Listen and offer support, refer the student to university resources around campus. Help make the appointment by dialing the phone number with the student in your office. A Walk-In service (no appointment needed) is also available in the UCS in 201 Sears Building.

• **Level 3: Urgent Care & Emergencies – Case Police 216-368-3333 or UCS 216-368-5872**
When a student demonstrates or discloses signs of severe or dangerous behaviors. Some signs to watch for include profound depression, thoughts of suicide, self-injury (cutting), frightening anger and/or threats of violence toward others; active anxiety attacks; cognitive confusion, incoherence, disorientation, or grandiose thoughts; or signs of excessive alcohol or drug use. Ask for assistance from an available colleague if possible as you call for immediate help.

Again, if you need immediate assistance with an emergency involving the safety of yourself, a student, or others on campus, please contact CWRU Police at (216) 368-3333. Furthermore, the UCS Counselor on-call may be reached at (216) 368-5872. This number will provide information on how to access the on-call system after hours, weekends and holidays. Weekdays, the UCS is open from 8:30 a.m. to 5:00 p.m. and is located in 201 Sears Library Building. Visit the UCS website at http://studentaffairs.case.edu/counseling/.

Work Cited


Additional Resources

Print


Electronic


Microteaching: Elective Seminar

Seminar Description

This seminar invites you to practice engaging students in a small classroom setting.

Seminar Objective

- To incorporate experiential learning concepts into teaching strategies for the classroom and lab.
What is Microteaching?

Microteaching is an instructor training technique that is used in colleges and universities, as well as primary and secondary schools. In a traditional microteaching session, a group of peer instructors gather together to teach short, student-centered lessons that they have developed beforehand. The lessons are often videotaped, and participants have the opportunity to offer constructive feedback on each instructor’s lesson and teaching style.

Microteaching rationale
   (Adapted from the Center for Teaching, Learning, and Outreach; California Institute of Technology)

Microteaching yields a variety of benefits for instructors. Specifically, microteaching sessions produce:

- new perspectives from colleagues and session facilitators on techniques for effective teaching.
- opportunities to practice oral presentation skills in a friendly environment.
- an awareness of challenges that may arise when teaching specific topics or disciplines, as well as strategies for overcoming those challenges.
- a supportive, collaborative dynamic among your colleagues.
- opportunities to practice using visual aids effectively.
- lesson plans that are organized in a logical manner

Preparing for a Microteaching Session

If you are invited to participate in a microteaching session, consider the following strategies to ensure that you gain the most out of your experience:

- Develop a lesson that you think you might teach in the near future so that you may use the feedback you receive to fine-tune it. (Note, however, that some facilitators may provide scenarios or topics for you to prepare.)

- Plan to involve the other participants in the session. If you are delivering a lecture, for example, incorporate questions that participants may answer to check for understanding.
• Decide how you want participants to be positioned during the session. Should your “students” sit in a circle? Should they be divided into pairs or small groups? Furthermore, where will you stand or sit during the session? Will you remain in one spot (perhaps at the front of the room), or will you periodically walk around the room?

• Practice your timing. Microteaching session facilitators often give participants a specific time allotment for completing their lessons. Try rehearsing your lesson beforehand to ensure that you meet time restrictions while also maintaining a steady, consistent pace.

• Ensure that you have prepared all handouts and visual aids well before your microteaching session begins. Doing so will alleviate the stress of rushing to make copies or edit slides with little time to relax before your lesson.
Additional Resources


Blackboard Training: Elective Seminar

Seminar Description

This seminar will introduce Teaching Assistants to the Blackboard Course Management system. Students will experiment with using Blackboard while learning to navigate and effectively use Blackboard components.

Seminar Objective

To learn basic techniques needed to maneuver through Blackboard in your role as a Teaching Assistant.

Introduction: What is Blackboard?

Blackboard is a course management system that allows faculty members and Teaching Assistants to upload course materials, announcements, links, and quizzes to the Internet without using HTML. Blackboard also includes a number of communication tools including discussion boards, electronic drop boxes, and a virtual classroom designed for real-time virtual class meetings. Moreover, Blackboard assists instructors in enhancing student collaboration and communication through blogs and group sites.

For each course, instructors are able to create a course website on the Case Blackboard site, http://blackboard.case.edu.

Blackboard Assistance at CWRU

Information Technology Services (ITS) supports faculty, students, and staff in the use of technology and learning. In addition to Blackboard instruction and consultation, ITS also offers support in the use of Technology Enhanced Classrooms (TECs), MediaVision Courseware, instructional design, assessment, and other ways of integrating technology into teaching and learning activities. For more information, contact ITS at (216) 368-4357 or visit their website, http://www.case.edu/its/blackboard/.
Educational Resources and Information

Educational Services for Students (ESS)

ESS is an academic support unit within the Student Affairs Division, and is a resource to you and your students.

Sometimes beginning graduate school may be challenging because your study methods from undergraduate school may not be appropriate. And with the additional teaching assistant assignment along with course work, departmental responsibilities and a new university and a new city, you may be struggling with time management.

ESS is here for you if you need to revamp or enhance your strategies for tackling your new, busy schedule. ESS staff members offer confidential, personalized consultation.

ESS also provides the following academic support generally specifically for undergraduates:

- **Peer Tutoring**
  Over 60 peer tutors provide free, individualized support for approximately 90 undergraduate courses each semester or a total of 150 courses per year.

  Students may sign up for 5 free tutoring appointments each week. Tutors and students arrange a convenient time and location. Students use the online scheduling system at [http://tutortrac.case.edu](http://tutortrac.case.edu). Appointments can be made up to 24 hours in advance.

  This past year, undergraduates made over 3,800 appointments and had 99% satisfaction rating for their tutors. And 86% of these students self-reported that they had an A or B in the course for which they were seeking tutoring. This information is significant because many new Case Western Reserve undergraduates will not seek tutoring assistance during their first year because they equate tutoring with unsuccessful students. Therefore, we hope you will encourage students to try Peer Tutoring whether they need just a little or a lot of academic support.
• **Supplemental Instruction (SI)**
ESS also provides SI sessions for approximately 25 biology, chemistry, engineering and physics courses that first and second year students typically take. SI leaders are undergraduates who have excelled in a particular course and who are hired by ESS to attend the class again, to meet regularly with the professor, and most importantly, and to lead two 90-minute reviews weekly as well as special exam-review sessions.

Last year, 654 SI sessions were held with a total attendance of 12,900. Again, students gave a positive rating of 96% for the SI sessions they attended.

The SI schedule is posted on the ESS website:
http://www.ess.case.edu

• **Individualized Consultation**
Undergraduate students are often referred by faculty and staff or take the initiative to make an appointment with an ESS professional staff member about time management and study strategies. If you feel that a student could benefit from a confidential appointment, please encourage that student to call 368-5230 or stop by the ESS office at Sears 470.

• **Commuter Assistants**
The Educational Support Services Office also provides extended support to commuter students through Commuter Assistants (CAs). CAs are selected and trained to meet the needs of students living off campus. CAs organize study skills seminars and workshops, act as conduits between commuter students and faculty and administration, and sponsor social activities to enrich the campus community. Rhonda Moore is the Director of Commuter Services. The CAs may be contacted through Educational Support Services at 368-5230.

• **Greek Community Educational Consultants**
The Greek Community Educational Consultants (GCECs) work with the sororities and fraternities on the CWRU campus promoting academic excellence. Each Greek chapter has a scholarship chair who works directly with the GCECs.

The GCECs are overseen by Wes Schaub, Director of Greek Life.
University Center for Innovation in Teaching and Education (UCITE)

Mano Singham, Director
Baker Building, Room 101
Phone: 368-1224
Fax: 368-0197
Email: ucite.case.edu
Website: http://www.case.edu/provost/UCITE/

UCITE was founded at CWRU in 1994 and seeks to reaffirm and support the idea of the integrated academic life in which both scholarship and teaching are parts of a greater whole. The mission of Case Western Reserve is to be a leader both in discovery of new knowledge and in developing skills and attitudes in our students, which will support a lifetime of discovery and learning. Thus, the central objective of UCITE is to support teaching and learning in its various forms throughout the University, and to seek a balanced campus culture in which teaching and scholarship are highly valued by all faculty, students, and administrators.

Goals
In agreement with this philosophy, UCITE has the following specific goals:
1. Develop and offer new services and programs which enhance learning in the classroom and other teaching settings.
2. Provide incentives and support for innovative teaching and education activities by faculty through grants and fellowships.
3. Support and encourage evolution of the campus culture regarding teaching toward a more balanced view in which teaching and scholarship are equally valued parts of a single enterprise.

Activities and Resources
- Provide services designed to help individual faculty members improve classroom teaching (recording, videotaping, observation, consultation, journal articles, self-evaluation, improved and more frequent student evaluation).
- Hold regular teaching seminar/discussion for new faculty.
- Sponsor seminars and visits by off-campus experts and innovators in education.
- Fund facility proposals for innovation in teaching and education in specific areas.
- Select and award Glennan Fellows.
- Publish periodic reports from the Director, UCITEations, which focus on teaching issues.
- Provide videotape, book, and periodical library resources for faculty use.
Define specific areas of emphasis, which are important for Case Western Reserve at this time; organize discussion of these topics; and solicit faculty proposals for funding in those areas. Current areas of focus are A) Critical thinking for freshmen; B) Writing and communication skills; C) Use of the electronic learning environment; D) Closer integration of teaching and research.
SAGES

In Fall 2005, SAGES (the Seminar Approach to General Education and Scholarship) became the general education curriculum for all Case Western Reserve undergraduates. Every Case Western Reserve school or college that grants undergraduate degrees—Arts and Sciences, Engineering, Nursing, and Management—participates in SAGES, and the program sequence extends through the entire undergraduate experience.

During the first two years, students complete three interdisciplinary SAGES seminars—a First Seminar in the fall semester of the freshman year, and then two University Seminars. These are followed, in the third year, by a departmental seminar, usually in a student’s major field; and, in the fourth year, by a capstone project demonstrating the intellectual agility and collaborative spirit that SAGES is designed to foster.

The SAGES program places active, inquiry-based learning at the heart of a Case Western Reserve education. Students develop essential communications and research skills over several semesters by participating in seminar discussions, giving presentations, and writing intensively. In the SAGES program, writing is not an isolated activity, confined to a freshman composition course. Instead, students concentrate on their writing throughout the SAGES sequence. All of the seminars—First, University, and departmental—are designated as writing-intensive courses.

As students work to improve their writing, they can obtain assistance from the SAGES Peer Writing Crew, a team of undergraduates who have distinguished themselves as writers in their SAGES seminars. Crew members offer peer tutoring in their Wade Commons office, respond to papers submitted to their electronic drop box, and dispense advice via Instant Messaging. They have also published an online writing guide. For details, please visit the Crew's blog at blog.case.edu/orgs/sages/.

Especially in their First Seminars, SAGES students explore the vast cultural and scientific resources of University Circle. They attend special lectures and presentations, and pursue research opportunities, arranged through SAGES’ partnerships with major institutions such as The Cleveland Museum of Art, the Cleveland Botanical Gardens, the Cleveland Institute of Music, and the Cleveland Museum of Natural History.

For more information about the SAGES program, visit www.case.edu/sages. If you would like to become a co-instructor in a SAGES seminar, you are invited to read the SAGES Instructor’s Guide; you can find a link to the online version at www.case.edu/sages/fellows.htm/
Writing Resource Center

The Writing Resource Center (WRC) at Case Western Reserve University provides supplemental, discipline-specific writing instruction to students of all levels at the university. Writing consultants work one-on-one with students on a wide variety of projects. Students are assisted with every stage of the writing process—from brainstorming and drafting, to revising and organizing, to sharpening expression. Writing consultants also work with students on issues of mechanics and grammar. The main goal of the Writing Resource Center is to provide writing instruction that ultimately empowers students to become better writers on their own.

Writing Center Hours
WRC hours are 9 a.m. to 4 p.m., Monday through Friday. During the first week of classes, students may begin scheduling appointments at any of our locations through the Writing Center Online scheduling system at http://www.casewconline.com.

Locations
The Writing Center is located in Room 104, Bellflower Hall. (Building 5A on the Campus Map). Satellite locations are also on the 4th floor of Nord Hall, the 1st floor of Kelvin Smith Library, and in the SAGES Café.

Online Tutoring
The Writing Resource Center now offers day and evening online tutoring. To view our online availabilities, go to the site and select “Online Tutoring” from the drop down menu on either the login or the main scheduling screen. You will then be asked to download the whiteboard/chat software, which will enable you and your consultant to view and modify your paper online. (The module may at first take a few seconds to download; after this, the software will load and work very quickly.) Please note that online tutoring sessions are designed to be as interactive as possible, and that appointments must be made at least one day in advance.

If you have any questions, please email writingcenter@case.edu.
Teaching Engineering


http://www.engr.wisc.edu/services/elc/strategies.pdf

4: YouTube example: Mechanical Engineering
http://www.youtube.com/v/25hKwrMPgO0&hl=en

5: Tips and Tricks Laminated Cards:
http://www.youtube.com/watch?v=0qQwKz8OjjU

6: English Teacher explaining science:
http://www.youtube.com/watch?v=zt9ZuaFbL-Q

7: Ten Principles of Effective Teaching and Practical Examples for the Classroom and Blackboard. Kerns, B, et al.
http://blackboard.bradley.edu/faculty/Recommended_Ef_Use_BB/RecommendedEffUseOfBb.pdf

8: Teaching tips:
http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.htm

9: Teaching handbook for international students:
http://ftad.osu.edu/Publications/InternationalHandbook/PDFChapterlinks.html

10: Handbook for effective teaching:
http://ftad.osu.edu/Publications/TeachingHandbook/contpdf.html

11: Effective Teaching Strategies:
Online Teaching Resources

We have provided a list of additional online teaching resources from off-campus sites.

- Two comprehensive web pages for teaching – you will find useful tips on every aspect of lecturing, leading recitations, and grading. You should definitely check them out!

  http://www.temple.edu/attic/docs/tahand03.html
  (Including: start-up ideas, tips on nervousness, motivating students, presenting lectures, leading discussions, constructing tests, student assessment, etc.)

  http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.html
  (Interesting topics include: first day of class, using questions effectively in class, organizing your teaching, learning theories, dealing with difficult behaviors in class, etc.)

- The Index of Learning Styles is an online instrument used to assess preferences on four dimensions (active/reflective, sensing/intuitive, visual/verbal, and sequential/global) of a learning style model formulated by Richard M. Felder and Linda K. Silverman, with tips on how learners can help themselves. Want to know what your index is? Just take the test!

  http://www.ncsu.edu/felder-public/ILSpage.html

- Need a nice icebreaker to get your class started? Check out the following nicely categorized links!

  http://adulted.about.com/od/icebreakers/
  Link to icebreakers used in Adult Education. A few are quite good and some others are more appropriate for informal classes.

  http://www.eslflow.com/ICEBREAKERSreal.html
  Link to a few good icebreakers broken up by category (basic, introductory, learning names, etc.) that are quite good (the doodle, two truths and a lie, getting to know you questions, etc.)

  http://www.nwlink.com/~donclark/leader/icebreak.html
  Small group icebreakers (good for lab groups of 2-3 people). “Marooned” and “finish the sentence” are good to introduce unfamiliar people.

  www.businesstrainingworks.com/Icebreakers.PDF
  PDF of icebreakers geared towards people past high school.

  http://www.wilderdom.com/games/Icebreakers.html
Listing of active icebreakers good for groups in outdoor or active environments. Also has links to other icebreakers on the site.

- Guidelines/templates for preparing **course documents** will save you a lot of time when you construct your first syllabus/lesson plan:

  **Syllabus:**
  - [http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.htm#syllabus](http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.htm#syllabus)
  - [http://gradschool.about.com/cs/teaching/a/teachtip_2.htm](http://gradschool.about.com/cs/teaching/a/teachtip_2.htm)
  - [http://ocw.mit.edu/index.html](http://ocw.mit.edu/index.html) (Open courseware from MIT)

  **Lesson plans:**
  - [http://www.temple.edu/attic/docs/tahand03.html#planning](http://www.temple.edu/attic/docs/tahand03.html#planning)
  - [http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.htm#lessonplan](http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.htm#lessonplan)

- **Assessment**: suggestions about how to assess various activities from class, as well as how to include students’ opinion in this endeavor.
  - [http://www.ftss.ilstu.edu/additional/assessment.php](http://www.ftss.ilstu.edu/additional/assessment.php)

- **Handling a large class**?
  - [http://www.ftss.ilstu.edu/additional/largeclass.php](http://www.ftss.ilstu.edu/additional/largeclass.php)
  - [http://www.ftss.ilstu.edu/additional/classm.php](http://www.ftss.ilstu.edu/additional/classm.php)

- **Other resources**:
  - [http://ctl.unc.edu/tat.html](http://ctl.unc.edu/tat.html)
  - [http://www.teachingcenter.ufl.edu/ta_development.html](http://www.teachingcenter.ufl.edu/ta_development.html)
  - [https://my.wsu.edu/portal/page?_pageid=177,185625&_dad=portal&_schema=PORTAL](https://my.wsu.edu/portal/page?_pageid=177,185625&_dad=portal&_schema=PORTAL)
  - [http://www.ftss.ilstu.edu/additional/genresource.php](http://www.ftss.ilstu.edu/additional/genresource.php)

- These sites will help you decide how best to use **active learning strategies** with your students.
  - [http://www.crlt.umich.edu/tstrategies/teachings.html](http://www.crlt.umich.edu/tstrategies/teachings.html)
  - This site is the University of Michigan’s Center for Research on Learning and Teaching and includes a wide range of information, such as assessing student learning, diversity issues, and course design.

  - [http://www.active-learning-site.com/](http://www.active-learning-site.com/)
  - This website offers some research on active learning strategies.
http://cte.whrdnj.edu/active_learning/active_general.cfm
This site offers a thorough overview of resources to define active learning and offer ways to implement this approach.

This site provides a good list of journal articles that provide both background information and specific ways to use active learning in the classroom.
Computer Network and Instructional Resources

Electronic Resources

Case Western Reserve University has developed one of the most advanced and extensive campus electronic network systems in the country. This network is available through fiber optically-wired faceplates in most rooms on campus, including residence hall rooms, classrooms, faculty and staff offices, laboratories and libraries, as well as wireless network access in the Kelvin Smith Library and other areas on campus. Students may use computers in the Plain Dealer Electronic Learning Center (PDELC) in Sears Building, Room 470 (368-3059). Students and faculty can send email, search for texts in the University Library catalog system, view course websites, use centrally held software to write papers or calculate formulas, and search the Internet.

As a Teaching Assistant, you should explore the university’s network resources as teaching tools in addition to discovering how these resources can enhance your research and correspondence. The following sections give some examples of possible uses for the electronic resources in your courses. Please note that these are suggestions for use, not instructions; if you need help getting started, talk to experienced faculty and TAs in your department and/or see the resources listed below.

Instructional Technology & Academic Computing (ITAC)
http://www.case.edu/its/itac

The University Center for Innovation in Teaching and Education (UCITE) in association with ITAC
368-1224
http://www.case.edu/provost/UCITE/index.html
Offers regular workshops in the use of technology in teaching.

Kelvin Smith Library’s CaseLearns program
http://library.case.edu/caselearns/
Offers instruction in computing, from operating system basics to web design to library research strategies.

SAGES Classes by Kelvin Smith Library
http://library.case.edu/ksl/services/libraryservices/infoliteracy/fsrationale.html
TA’s and a faculty member can ask for a special class session to help students get started on their themed projects. Part of the KSL Information Literacy program skills demonstrated in the SAGES class are easily transferred to other classes, and offer a unique opportunity to focus on sources relevant for a course. In Fall 2008, KSL reference staff taught 81 special classes and reached nearly 2,300 students with course-specific instruction. Call or email William Claspy to plan a special class for students, at 368-3595 or wpc@case.edu

The Freedman Center, Kelvin Smith Library
http://library.case.edu/ksl/freedmancenter/
The Freedman Center has modern technology to inspire you to take your projects to a highly creative level, with scanning, GPS, multi-media, language learning services, and much more. Use the media workstations, edit sound or video, create a podcast in the sound booth. Learn a foreign language on a language learning station equipped with region-free VCR & DVD players.

Library Research Tools

Library research may be conducted using a variety of research tools that are made available to you via links from the Case Catalog at http://catalog.case.edu or from the Kelvin Smith Library homepage at http://library.case.edu Reference staff at all Case libraries are available to get you started on your research and to help you combine electronic journals and databases with printed resources. Talk with Kelvin Smith Library reference experts in a variety of ways, including telephone, email, LiveChat, appointments, and more. Look for the ASK KSL logo to talk with reference staff. You can also arrange a special class session for your students to learn about the library’s resources and search tips. Contact the Reference staff at Kelvin Smith Library at 368-6596 or by email askalibrarian@case.edu

Access to Library Content (Journals, Databases, etc.) from Off-campus or Wireless Computers

Get access to 100% of library databases & journals via your home computer or wireless laptop through the campus VPN Client—a program you can download through the following site: http://help.case.edu/results.php?i=116 VPN works by opening a tunnel to your existing Internet connection and the Case network and assigns you a Case Network address, so all of your Internet activities take place as if you were on the Case Network.

Check your network VPN connection with the convenient Green Light/Red Light on the upper right corner of the Kelvin Smith Library homepage at http://library.case.edu If you see a red light, you will not be able to access or read the ejournals and other content licensed for your use.

VPN guarantees access to all the content that both Case and OhioLINK, the Ohio academic consortium, license for you. If you do not use VPN, you can access the OhioLINK-only content
by using a library PIN and identifying yourself as a Case student. This can be convenient when
you are traveling or not using your own computer. Access these resources directly from
http://www.ohiolink.edu/ and answer the prompts for personal information and library PIN.
For library PIN help, call Kelvin Smith Library at 368-3506. For computer or access problems
contact the Case Network help desk at 368-HELP.

Case Catalog Content
http://catalog.case.edu
The Case Catalog provides access to the online catalog of Case Western Reserve libraries and
our affiliated libraries. It helps to locate books, journals, documents, videos, and other materials.
The Case Catalog also identifies and links to electronic books and electronic journals. Search by
author, title, subject or keyword. Access the catalog via the web at: http://catalog.case.edu

The Case Catalog also provides a direct connection to many library services such as the KSL
Course Reserves (with links to online reserve papers/chapters from your faculty), RefWorks to
manage your paper’s and project’s citations, and ILLiad Interlibrary Loan services that get items
for you when you cannot find them at Case or on OhioLINK.

Students also automatically have a library account on the Case Catalog, where you can see
everything you have borrowed, renew books online, check for due dates, and see notes about
ordered materials and OhioLINK items you have ordered.

Research Databases are organized by subjects so you can go directly to the kinds of
databases that will support your topic. Research materials date from the 1600s to today’s
newspapers–and both Case and OhioLINK contribute to the large list of databases (nearly 400
databases). Each topic or subject has a folder, and expands to very specific types of information
that you might need to explore. Find links to the research database from the KSL homepage in
Research Tools, or from the Case Catalog quick link to Research Databases at
http://library.case.edu/databases/rdbindex.aspx

OhioLINK Resources
OhioLINK is a cooperative effort of nearly 90 academic libraries in Ohio, the State Library of
Ohio, and the Center for Research Libraries in Chicago. Case is a founding member of
OhioLINK, which enriches and supplements your research at Case. Case contributes collections
to the consortium and Case individuals have borrowing privileges online and onsite from the
OhioLINK libraries.

The OhioLINK Central Catalog has records for over 45 million items that you can search for
and borrow online, from any of the OhioLINK member libraries. When the university’s
libraries do not own or have available the books you need, simply toggle from the Case Catalog
into the OhioLINK Central Catalog by clicking the OhioLINK icon. Then you can order copies
from other Ohio libraries and select any Case Western Reserve library of your choice as the pick-
up location, or choose other member libraries that are conveniently located near where you live. Delivery is generally within 4-5 days. With your Case ID card and a Case library account in good standing, you also can visit an OhioLINK library and borrow directly, which can be helpful and convenient when you need something quickly.

The OhioLINK system also provides 200 subject-specific research databases and the specialized electronic collections. The Electronic Journal Center (EJC) has full text articles from thousands of electronic journals. Electronic books are also offered through OhioLINK’s Electronic Book Center. Electronic media is available on the OhioLINK Digital Media Center (DMC), and the ETD gives you access to the Electronic Thesis and Dissertation Center.

Electronic Bulletin Boards

Bulletin boards are used most easily within the Case Blackboard system for specific courses. Blackboard’s Discussion Boards provide a forum for exchanging information and discussing course materials in a format that allows for archiving of old messages, searching, and threading, as well as creation of multiple discussion boards for a single course. Similarly, discussion boards can be established and accessed for campus organizations through the Blackboard system.

Electronic bulletin boards are useful for expanding class discussion beyond the classroom. By requiring students to post frequently (at least once a week is recommended to keep students active), you can encourage extended discussion of class topics, exploration of related issues, and ongoing debate about course themes and goals. Start by posting a message explaining how often students should post, what subjects are suitable for discussion, and what tone of discussion is acceptable. Students who visit an electronic bulletin board will be able to see all postings and contribute ideas of their own. This is a particularly good way to encourage quiet or shy students to participate in discussion; some students will be less intimidated by a computer screen than a traditional classroom format.

Blackboard also offers an electronic posting system for assignments, a course-specific email system, and grade book.

For additional information on creating and using an electronic bulletin board within Blackboard, contact the following sources:

The office of Instructional Technology & Academic Computing
368-8600 http://www.case.edu/its/itac

The University Center for Innovation in Teaching and Education (UCITE)
There is also a public forum available at http://forum.case.edu that allows you to post just about anything to the general public, but please follow the posting rules. Student Internet Services or the SIS has made this forum available.

A wiki and a blog open to the general public can be accessed at http://wiki.case.edu and http://blog.case.edu.

Finally, wiki and blog capability are both in the Blackboard system, which provides a more guarded way to use these tools. Only students enrolled in the course can access and use these applications to read and submit entries in the Blackboard course site. For more information on using these tools in Blackboard contact the office of Instructional Technology and Academic Computing at http://www.case.edu/its/itac.

**Student Research on the Internet**

The Internet offers information resources far beyond Case Western Reserve. Your students may take the initiative to research class topics using the web, or you may choose to assign them to do so. While many websites offer up-to-date, reliable information and graphics that are difficult, if not impossible, to find elsewhere, be careful. Many sites are unreliable, poorly documented, or misleading. If your students use the Internet for research, take time to teach them not only how to find information (which they may already know), but also how to evaluate the sources of the information they find. Consult with the appropriate style guides for your discipline to discover how to document information obtained from the Internet. Explain to your students that information from the Internet might not only be inaccurate and unreliable but also that it does not necessarily overlap with what books and periodicals in the University Libraries contain. A search on the Internet should not substitute a review of the library’s holdings.

**Software Center / Software for Teaching**

The Case Western Reserve Software Center
http://softwarecenter.case.edu
An online resource containing a number of applications for classroom and other academic use. All current students, faculty, and staff can download programs for use on their own computers. Available software includes Norton Antivirus, Microsoft Office, Adobe Acrobat, CodeWarrior, Mathematica, Matlab, Adobe Photoshop, and Macromedia Studio.

A growing number of faculty use software packages obtained from the network for their teaching, either by requiring students to use specific applications, such as Mathematica, to complete course assignments or by connecting a computer to the classroom’s faceplate and
using software during class. This can be very effective with technical programs such as those used to visualize and analyze complex structures or dynamics in chemistry, biology, or physics.

Email
Electronic mail is possibly the simplest, easiest tool to use on the Case network; it can also become one of the most indispensable tools, as you speed up interdepartmental communications and exchanges with students. Through email you can join mailing lists devoted to research in your discipline or your specialty, receive and send notices of conferences and calls for papers, and keep in touch with friends and colleagues at other institutions in the United States and abroad.

Many professors keep mailing lists of their students. These are useful for sending out study questions, general class problems and their solutions, or notices of new readings or recent developments pertaining to your subject. A wide variety of email programs such as Outlook or using Yahoo’s, or Google’s mail systems, make it easy to maintain aliases of students in your various classes and update them as needed.

You can also use email to sustain a general correspondence with students who need it. Often students will find email the most convenient way to alert you to questions about the material or seek help with specific assignments. If you need to arrange a meeting with a student, you may be able to make first contact with email rather than by the telephone.

You are assigned a network ID by the University (e.g. axb13) and an email address consisting of your first and last name, all official mail and announcements will be sent to your firstname.lastname@case.edu mail address. If you choose to use a different email address, make sure you forward your @case.edu account to your preferred address so that you do not miss any special University notices or email that others might send to your University email address.

As an added benefit, using email may make you seem more approachable. Many students who would feel intimidated phoning or visiting your office to ask a question might be more comfortable sending you an informal message via email.

Information Technology Services (ITS)
The ITS Help Desk provides complimentary 24/7/365 service and support. Two walk-in centers are also available on campus for in-person care and assistance. Help.case.edu or 368-HELP.

A Final Word on Electronic Resources
As a final consideration, be careful, as over-reliance on computerized systems can be dangerous. The vast amount of information available may overwhelm your students (and you); the ease of email communication may cause you to misjudge how much time you spend reading and
responding to messages; and the habit of turning to computerized systems may imply that research and study tools that are not as technologically exciting are also less valid.

However, used properly, electronic resources available at the university can enhance your teaching and your students’ learning. As you plan your course and your individual class sessions, ask yourself what the real usefulness of any tool will be—computerized or not. Thoughtful use of search tools and communication devices available via Case Network can give your students necessary pre-professional experience, as well as knowledge. By using Case Networking in your courses, you can teach your students discernment and critical thinking skills. Make the most of your opportunities by making the most appropriate use of these resources.
General Campus
Information

Additional Resources for Students
(All phone numbers are area code 216)

**Academic Advising**
Undergraduate Studies
Jeffrey Wolcowitz, Dean of Undergraduate Studies
Sears 357
Michael R. Mason, Assistant Dean for First-Year Students
368-2928
Nancy DiIulio, Senior Associate Dean of Undergraduate Studies

All freshmen are assigned a faculty adviser by the Dean for First-Year Students. This adviser, most frequently a faculty member of an academic department in which the student has indicated some interest, assists students with course selection and oversees each student’s academic progress. When students declare a major (usually the second semester of the freshman year), they are assigned a departmental adviser who is a faculty member in the selected department. Additional faculty provide special counseling to students who plan to pursue admission to professional studies in dentistry, law, medicine, or nursing, or who plan to participate in the Junior Year Abroad.

**Academic Records**
Undergraduate Studies
Sears 357
368-2928

Undergraduate Studies oversees all undergraduate academic advising, maintains the academic records of all undergraduates, and monitors and enforces academic regulations and standards. Though matters of academic honesty must be discussed with the Dean of Undergraduate Studies, judicial actions are carried out by the Office of Student Affairs, Adelbert Hall.

**Bookstore**
University Bookstore
Ann Rossi-Smerglia, Manager
11451 Euclid Ave.
368-2650, Main
The University Bookstore serves as the source for new and used textbooks. In addition, the University Bookstore features complete reference sections, quality school and office products, the latest computer systems and software, and a broad selection of clothing and gift items.

**Career Services**

Career Center
Sears, Room 206
368-4446

Career Services serves the career development and employment needs of undergraduate and graduate students as well as alumni. Occupational information, directories for identifying employers, announcements of job vacancies nationwide, and graduate school information are all available in Career Services as is individual counseling focusing on career and academic decisions.

**Community Service Opportunities**

Center for Civic Engagement & Learning
Thwing Center
368-6960

The Office of Center for Civic Engagement and Learning (CCEL) is the office which links individuals and student groups with volunteer and community service opportunities through a comprehensive database. Its projects include a tutoring and mentoring program through Case’s Presidential Point of Light Award-winning Project STEP-UP (Student Tutoring Effort to Promote the Utilization of Potential), a student volunteer coordinating committee, and two AmeriCorps National Service projects.

**Counseling**

University Counseling Services
Sears, Room 201 and University Health Services
368-5872, Counseling
368-2510, Mental Health Service

University Counseling Services (UCS) provides individual, group, and couples counseling for undergraduate, graduate, and professional school students and their spouses. The staff of psychologists, social workers, and psychiatrists respect the student’s need for confidentiality and, therefore, will not disclose information to any other person without the student’s written consent except in cases of imminent danger. We welcome your calls for more information or to assist in making referrals to our services.
Case Network
Technology Infrastructure Services            Jeff Gumpfs, Director
Crawford 612
368-5893
368-4357, Help Desk

Case Network is the fiber-optic cable based communications network which covers the entire Case campus. Each student is assigned a Network account that allows access to a vast array of information and other services. These include electronic mail, access to Case Western Reserve and other academic institutions’ electronic software information services, and connection to the Internet.

Disability Resources
Educational Services for Students            Susan Sampson, ESS Associate Director
Sears Building, Room 470 for Disability Resources
368-5230

Students with permanent or temporary disabilities can be assisted by the ESS Office. Students with learning disabilities, physical disabilities, chronic illnesses, or those with a history of mental illness are eligible for special services and are assisted with appropriate supplies and accessibility to classes, programs, and resources. Campus-wide transportation is available to all eligible students including those with temporary problems due to injury or short-term illness. ESS also operates a Sight Enhancement Center as part of its Electronic Learning Center.

Discipline and Judicial Board
Student Affairs            Kendra Slivar
Adelbert 110            Director for Judicial Affairs and
368-2020            Community Standards

Any member of the University community may notify the Office of Student Affairs of violations of the University standard of conduct. After review by the Assistant Vice President, the case is referred to the University Judicial Board, University Administrative Hearing, the Residence Life Judicial Board, or the Interfraternity/Panhellenic Board.

Educational Services for Students (ESS)
Sears 470            Judith Olson-Hammer, Director
368-5230

ESS offers both individual consultation on study strategies and time management; arrange appointments by calling 216-368-5230 or by stopping by ESS. ESS is also home to Disability Resources, Commuter Services, Peer Tutoring and Supplemental Instruction, and Teaching
Assistant Training. ESS also has a computer lab that is available to all students, Monday through Friday, 8:30 am to 5 pm.

**Greek Life**

Greek Life  
Mark Starr, Director  
Yost Hall, Room 7  
368-3954, General  
368-1363, Director

The Greek community at Case Western Reserve is composed of 17 national fraternities, four national sororities, and one local sorority. Approximately 30 percent of undergraduates belong to Greek letter organizations.

**Health Services**

University Health Service  
Eleanor Davidson, M.D, Medical Director  
2145 Adelbert Road  
368-2450  
368-4539 (Appointments)

University Health Services provides treatment on an appointment basis for a variety of primary care needs. The Case Accident and Sickness Medical Plan covers, within certain stated limits, outside referrals and hospitalization. Students are automatically enrolled in the Medical Plan unless they complete a waiver. University Health Services does not treat dependents of students though elective insurance is available.

**International Student Services**

International Student Services  
Marielena Maggio, Director  
Tomlinson Hall, First Floor  
368-2517

The Office of International Student Services assists all international students with non-academic concerns, including immigration procedures as well as housing, legal, financial, social, and cultural considerations. Each year, activities such as field trips and cultural events are planned in order to increase awareness among and within different nationality groups.

**Libraries**

University Libraries  
Joanne Eustis, Director  
368-3506, Kelvin Smith Library  
368-2992, Director
The University Libraries support the undergraduate and graduate curricula of Case Western Reserve and seek to satisfy the information needs of students, faculty, and staff. All Case Western Reserve students, faculty, and staff may borrow materials from the circulation collections of the University Library by presenting a valid Case ID card. Students may access library catalogs using EuclidPlus, the electronic library catalog available through Case Network. Though Kelvin Smith is the main undergraduate library, students may also use the Health Sciences and MSASS libraries.

**MediaVision Services**
CWRUnet Services Mike Kubit, Director
Medical school WG60
368-3777, Fax: 368-3408
http://www.case.edu/its/itac/mediavision/

Audio-Visual Services will provide overhead projectors, slide and film projectors, VCRs and TVs, computer projection systems, and a variety of other audio-visual equipment. These services are provided at no charge for classroom use for courses listed in the official Schedule of Classes.

**Multicultural Affairs**
Minority Programs Deborale Richardson-Bouie, Director
Sears Building, Room 450
368-2904

The Minority Scholars Program (MSP), designed to increase the recruitment and retention of under-represented minority undergraduate students at Case, encourages all eligible students to take advantage of various opportunities for enrichment and support. MSP provides a pre-freshman summer program, individual support and guidance, social and cultural activities, and information about internships, careers, and scholarships.

**Peer Tutoring and Supplemental Instruction**
Educational Services for Students James Eller, Associate Director
Sears Building, Room 470
368-5230

Peer Tutors are undergraduate Case Western Reserve students nominated by professors and trained by ESS to provide individual tutoring to their fellow students. Meeting with a Peer Tutor can help students clarify assignments, connect lecture and readings, practice problem-solving, and assist with language skills. Tutoring is provided in over 75 undergraduate courses
each semester. Students may schedule up to five hours of complimentary tutoring per week at the following web site: http://tutortrac.case.edu.

Supplemental Instruction (SI) is an academic enhancement program that utilizes peer-assisted study sessions led by SI Leaders, former students who have succeeded in the course and trained by ESS. SI sessions are regularly-scheduled, informal review sessions in which students practice problems with guidance, learn useful strategies to solve problems more efficiently, gain the “big picture” on most important concepts of the course, increase efficiency in test preparation and test taking, and obtain a different perspective on the material. Courses in biology, chemistry, engineering and physics offer SI sessions. Refer to this website for the SI schedule and additional information: http://ess.case.edu/si

**Registrar**

University Registrar

Amy Hammett, University Registrar

Yost 110

368-4310

The University Registrar is responsible for the permanent academic records of all students in the University. The Registrar also prepares and distributes the schedule of classes, which contains the final examination schedules; maintains registration, drop/add, and withdrawal information; and provides enrollment certification for veterans’ benefits. Official University transcripts are issued by the Office of the University Registrar. Students can obtain recorded information about requesting transcripts by calling 368-4337. The Office also makes a variety of information available to students through the Internet.

**Religious Organizations**

Newman Catholic Association

Tony Vento, Catholic Campus Minister

11205 Euclid Avenue

368-2000

421-9614, ext. 302, Catholic Campus Minister

Hillel Foundation

Gary Coleman, Director

11291 Euclid Avenue

368-2477

231-0040, Director

United Protestant Campus Ministries

Reverend Kim Hauenstein;

Reverend Heather Godsey,

11205 Euclid Avenue

231-2260

Protestant Campus Ministers
Case Western Reserve is nondenominational and hosts religious representatives from the Roman Catholic, Jewish, and Protestant traditions. In addition, student groups sponsor activities and religious observances for other world religions. International Student Services can provide information.

**Residence Life**

**Housing and Residence Life**

Todd Rasmussen, Associate Director

Yost Hall

368-3780

The Office of Housing and Residence Life staffs the 18 undergraduate residence halls with trained undergraduate students, Resident Assistants (RAs); graduate students, Resident Directors (RDs); and full-time professional staff. The staff administers the halls and works to create a desirable community while assisting with personal issues.

**Sports and Recreation**

Veale Convocation Center

David Diles, Athletic Director

Adelbert Gymnasium

Pat Kennedy, Director of Intramurals

Steve Thompson, Facilities Manager

Info: 368-2420

A variety of physical fitness facilities on campus are available for Case Western Reserve students. The Veale Convocation Center includes swimming pools, squash and racquetball courts, nautilus, weight, and wrestling rooms, a large gymnasium, and an indoor oval track. Van Horn Field, in front of the Veale facility, is used for intramurals and jogging. Finnigan Field, on the north side of campus, has a 400 meter all-weather track, football, baseball, and soccer fields. In addition, the University has 12 tennis courts located on both north and south sides of campus.

**Student Activities & Leadership**

Colleen Barker-Williamson, Director

Thwing Center

368-2679
Undergraduate Student Government
Student Activities Office
Thwing Center
368-5017

University Program Board
Student Activities Office
Thwing Center
368-2679

The Thwing Center Activities Office coordinates the development and implementation of programs for undergraduate student organizations including the Undergraduate Student Government and the University Programming Board, which sponsors campus-wide events throughout the year. Many activities for graduate students are sponsored by the Graduate Student Senate, which also has representation on the University Faculty Senate.

Student Employment
Student Employment
Yost Hall, Room 410A
368-4533

Most Case Western Reserve students are eligible for on-campus employment. The Office of Student Employment serves as a placement and administrative center for all students paid on an hourly basis. International students with J-1 or F-1 visas are eligible for on-campus employment with the permission of International Student Services.

Thwing Center
1111 Euclid Avenue
368-2660

Thwing Center is Case’s student union. It houses the Student Activities Office, the Jolly Scholar, Printing Services, a post office, and other services. Many faculty, staff, and students gather here for meals or meetings. Campus activities and student group meetings are held in Thwing Center meeting rooms and the Ballroom.

Writing Resource Center
Bellflower Hall, Room 104
368-3798

Dr. Megan Swihart Jewell, Director
The Writing Resource Center, operated by the English Department, offers writing instruction free of charge to undergraduates in thirty-minute one-on-one tutoring sessions. Most tutoring is done on a weekly appointment basis, although limited walk-in time is available. Students may also have their papers for specific courses critiqued with the permission of the instructor.
# Campus Resource Phone Directory

The following are resources available to you in assisting students with their concerns.

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<th>Office</th>
<th>Phone (area code 216)</th>
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<td>Absences</td>
<td>Undergraduate Studies</td>
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<td>Academic Dishonesty</td>
<td>Undergraduate Studies</td>
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<td>Academic Advising</td>
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<td>Academic Programs</td>
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<td>Activities</td>
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<td>Ambulance</td>
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<td>Athletics</td>
<td>Adelbert Gym</td>
<td>368-2420</td>
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<td></td>
<td>Veal Athletic Center</td>
<td>368-2866</td>
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<td></td>
<td>Intramurals</td>
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<td>Sports Information</td>
<td>368-3874</td>
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<td>Bookstore</td>
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<td>Bus Services</td>
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