The seal of Rensselaer Polytechnic Institute is a circular emblem. It features a central shield with a scale of justice and a book. Above the shield is a banner with the motto "KNOWLEDGE AND HONORABLENESS". Below the shield is the year "1824". The words "RENSSELAER POLYTECHNIC INSTITUTE" are written around the perimeter of the seal.

Rensselaer Teaching Assistant Handbook

2016-2017



OFFICE OF GRADUATE EDUCATION

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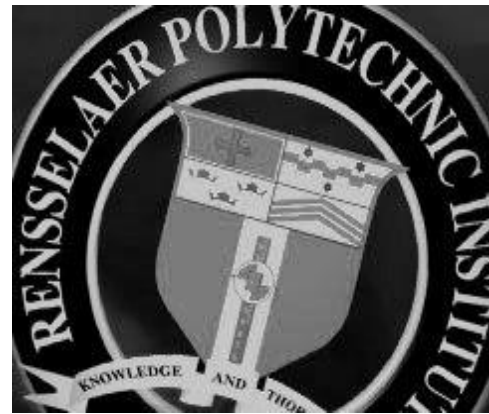
INTRODUCTION

THE TEACHING ASSISTANT'S ROLE

Experience as a teaching assistant (TA) can be an outstanding way to learn the art of teaching and to have a positive influence on many students.

As a TA, you are the key link between professor and students. This gives you the opportunity to observe and influence higher-level decisions about course design and content, as well as the opportunity to maintain daily, close interactions with students. If you keep this perspective, you may find serving as a TA one of the most rewarding experiences you have in your education at Rensselaer.

In most cases, you will have to take some initiative to make sure that your TA experience provides both the mentorship you hope for and a set of responsibilities you can handle. Clear conversations with the professor for whom you are a TA can set the stage for both.



THE ROLE OF A TEACHING ASSISTANT AT RENSSELAER

The role of a Rensselaer TA may differ between departments or courses they are teaching. The TA may engage in:

- Facilitating a class discussion,
- Running a laboratory,
- Conducting a recitation section, or
- Grading undergraduate students' work.

WHAT MAKES A GREAT TEACHING ASSISTANT?

BE WELL-PREPARED. Whether you're leading a discussion section, a review section, or a lab section, plan your materials in advance. Ask former TAs and the professor for materials developed for previous classes.

KNOW YOUR STUFF: Stay up to date with the content of the course that you're TA'ing. Nothing is as disappointing to students as finding out that their TA hasn't read the textbook or doesn't attend lecture.

COMMUNICATE WITH EASE. In particular, you need to be able to explain complicated things clearly, develop interesting examples, and listen carefully as students ask questions or try to explain their confusion. Here is where basic public speaking skills can increase your confidence and sense of self-efficacy as a TA.

BE APPROACHABLE, AVAILABLE: How to project an approachable temperament: maintain a friendly attitude, stay after class to talk with students, and encourage students to visit your office hours or email or text you their questions. Make sure your office hours are convenient for students and be certain to be there, even if you are not expecting someone.

BECOME A STRENGTH-BASED COACH. Students can tell the difference between a TA who considers the TA role a means to an end and a TA who genuinely enjoys teaching and interacting with students. *Focus on the positive aspects* of the students' level of understanding of the subject matter, and build from there. Instill a passion for the field of study by demonstrating your own.

RELATE WELL WITH THE PROFESSOR. A great TA provides the bridge between a professor's goals and his or her day-to-day achievement. To do so, maintain regular, positive interactions with the professor and provide feedback about how the course is going, from the students' perspectives as well as your own.

BE CONSPICUOUSLY ORGANIZED. Anticipate ways that you can make the course run more smoothly for both the professor and the students. Look for ways to streamline, document, or improve course activities and teaching responsibilities

PREPARE FOR A SUCCESSFUL TA EXPERIENCE

- Meet with the professor and other TAs as soon as possible.
- Set clear expectations about both what you can contribute to the course (in time, responsibilities, and skills) and what you hope to get out of the opportunity (in training, experience, and mentorship).
- Schedule regular weekly meetings with the professor and other TAs to maintain open communication and to iron out course details
- Balance your TA work with other academic and professional obligations; consider this practice for a faculty position that combines teaching and research.
- Invite the professor to watch you teach and request feedback on your teaching performance.
- Offer feedback to the professor about the course and initiate conversations about those aspects of teaching that interest you most.

COMMON TA TASKS

CONDUCTING SEMINARS

RECITATIONS

Science, engineering and mathematics courses commonly use the recitation format for problem set review. A recitation encourages students to work out solutions as a group. It is important that TAs know the content of the current lectures and seminars in order to create problem sets that match topical subject matter.

DISCUSSION GROUPS

Humanities, arts, the social sciences, and management more commonly use discussion groups to review course content and readings. Small group interaction is usually one of the most rewarding experiences of undergraduate study.

A facilitator of a discussion group will need to have an idea of the form the discussion will take and a sense of the desired outcome. You can take some of the following steps, listed in the box below, to help assure a worthwhile learning experience for each member of the group.

PREPARE FOR A SUCCESSFUL DISCUSSION GROUP

- Provide a detailed and written description of what is required before the group meets.
- Have a set of significant questions ready to ask the students.
- Keep the groups as small as possible.
- Do not allow one person to dominate the discussion.
- Be certain that everyone speaks - call on people who are reluctant to participate and reward them with a thank you for their insights.
- Encourage discussion between the students in the group.
- Work toward a mutual learning

REVIEW KEY CONCEPTS AND IMPORTANT SKILLS

Do not assume that everyone should already have complete control of essentials. Cover the problems that require the most important skills; resist digressions. Keep track of particular problems that students are having, and reintroduce them before a test. Keep a file of problems to provide students with more and varied practice.

USING THE APPROPRIATE TONE FOR QUESTIONS

A great deal depends on how you phrase questions. The tone you adopt, whether paternal, sarcastic, Socratic, sincere, probing, encouraging - when asking questions it will help to shape student attitudes toward the subject, the class, and you. It is therefore best to decide why you are asking questions and then to decide how to ask them. As with all other aspects of teaching, you will probably be trying to accomplish several things at once.

WHAT KINDS OF QUESTIONS TO ASK

Ask open-ended questions that require students to fully elaborate on the subject matter, rather than questions that require a yes or no response. Further, asking a series of related open-ended question encourages students to think critically about the material. If you ask, "*What is supply-side economics?*" followed it with, "*How is this approach to describing economies helpful in ways that demand-side economics is not?*" And, "*If supply-side economics looks at modes of production, as Rosalind suggests, how might supply-side economics influence demand-side economics?*"

When possible, try to find a relationship between the subject matter and the students' more general interests, for example, *"How do supply-side economics affect the salary levels seen in major league sports?"*

Jane Fried, in her article, "Learning Reconsidered," states that *"Scientists have discovered that learning is most powerful when students can place new information in the context of previously acquired meaningful information."*¹ Search out resources such as the Fried article as you develop your teaching style.

Questions encourage students to think independently. Ask real questions, and use the answers to develop the discussion by building new questions on top of previous answers.

Remember that teaching is itself a learned skill and that many resources are available to assist you in better understanding the complexities of knowledge acquisition and in creating an optimal learning environment for your students.



WHAT TO DO IF NO ONE ANSWERS

Try to vary the difficulty and complexity of the questions you ask, and don't panic if no one has an answer right away. Avoid answering your own questions or reposing them continually in different ways.

MAKING USE OF ANSWERS

When listening to answers, pay close attention and let the students know that you are interested in what they are saying. Ask a student to elaborate on an answer that is too compact or to develop an idea that someone else has offered. Do not be afraid to admit that you don't have an answer. If there is no single answer, be sure not to give students the impression that there is. Don't ridicule wrong answers or draw attention to someone who has not done the work they were supposed to have done if doing so will encourage a sense of alienation on the student's part.

1. Jane Fried. "Higher Education's New Playbook: Learning Reconsidered." *About Campus* 12.1: 2-7. Central Connecticut State University, 2007.

RUNNING LABORATORY

EXPERIMENTS

LAB SAFETY

Acquaint yourself with the laboratory that you will be using. Know where the phone is and what the appropriate emergency numbers are. Extension 6611 is the number for security and emergency assistance. Locate and know how to operate fire extinguishers, emergency exits, showers and eyewashes, electrical circuit breakers, main gas shutoff, and spill kits.

You should know where the first aid equipment is and know the procedures for any specific accidents that could conceivably occur. You should also have the proper safety equipment for working in labs, including lab coats, eye protectors, safety shoes, and any other appropriate equipment. Do not be cavalier with safety procedures, since students will adopt their teacher's attitudes, and any laxity on your part may be perceived as acceptable procedure.

KEEPING THE LAB SUPPLIED

Know what equipment the lab has and what materials are available to it. You will also need to know where materials are stored and possibly where to get more if supplies run short (see Appendix V).

PREVENT ACCIDENTS IN THE LAB

To avoid accidents in the lab – such as the unfortunate incident that occurred at the University of Missouri at Columbia lab in 2010, which injured four people – be attentive to the condition and use of lab equipment and materials.²

LAB REPORTS

Provide explicit, written instructions on how to write lab reports, including what they should contain and what they are expected to accomplish. It is a good idea to provide detailed syllabus at the beginning of the term which explains lab reporting, provides an overview of the experiments, and includes whatever practical information – phone numbers, locations, due dates, etc. – the students will need throughout the year. Make sure that the reports come in as scheduled and try to allow students to revise based on your original evaluation of their report. Give specific explanations on improving both the report and the student's laboratory procedures. Writing, remember, is a learning process, not simply a matter of report.

PREPARING FOR THE LAB

If you can, perform the experiment before the students do, so that you will know the procedures fully and be prepared to handle any possible difficulties or questions. When answering questions, be careful not to create the impression that there is one single correct answer. They are learning how to think in a particular manner; they are not following a recipe. If, for whatever reason, the experiment cannot be performed ahead of time, work it out in your head or on paper and discuss it with faculty members.

FAMILIARIZING STUDENTS WITH METHODS AND PROCEDURES

Before they perform the experiment, provide the students with an explanation of the equipment and materials they will be working with. They should not know exactly what to expect, but they should know the basic procedures.

2. "Lab Explosion at U. of Missouri at Columbia Injures 4." The Chronicle of Higher Education 2010. Web. <<http://chronicle.com/blogPost/Lab-Explosion-at-U-of/25162/>> Date Last Accessed: 08/03/2010.

ASSISTING IN THE PREPARATION OF TESTS

Like most other aspects of teaching, testing has two objectives: evaluation and education. Prepare tests, exams, and essays so that student performance accurately reflects each student's understanding of the material. This way, the student will learn something in the process of discovering how much he or she knows about the subject.

SAMPLE QUESTIONS

The students should know beforehand exactly what material they will be responsible for and how they will be graded. It is a good idea to provide sample questions and practice tests, but it is not wise to give the same test twice. Sororities and fraternities keep files, and a duplicate exam will give some students an unfair advantage.

WHAT A TEST SHOULD COVER

A test should cover only the material central to the course objectives, and should allow students to demonstrate a range of understanding. A test should also present problems of varying complexity, reflecting the differentiation among student capacities. If the best student in the class gets 100% and everyone else fails, obviously the test was prepared for one person only.

TYPES OF TESTS

There are essentially three different kinds of tests. Each is better suited for testing a particular kind of knowledge.

- When testing for students' absorption of factual material, multiple choice, true false, matching, or fill in the blank formats are best. They are easier for teachers to evaluate because they are quickly graded and provide little room for debate, but they are hard to prepare properly.
- To find out how well students can apply the theories or techniques they have been taught, prepare problems, multiple choice, short answer, and essay questions. They offer students a chance to demonstrate powers of memory and abstraction. These kinds of tests are more time consuming to grade.
- To test analytic and evaluative capacities, use essays and multiple-choice tests. Essays allow students to demonstrate their ability to communicate complicated ideas. Essays, of course, are very time consuming to grade and require considerable, specific commentary.

GRADING

Grading provides a standardized measure of a student's performance. Employers and graduate schools rely on such measures to help them decide between candidates. Grades provide students with a detailed measure of their performance in a particular course. Grades can encourage, reinforce, reward, redirect, challenge, affirm and motivate. Students should never construe a grade as a punishment. It is important that students understand that a grade, good or bad, represents only their level of performance in a particular course.

GRADING TECHNIQUES

Normative grading ranks an individual within a class, while criteria grading indicates an individual's achievement measured against a standard set by the teacher. If you grade according to a norm and distribute the grades in a class over a curve, then someone looking at the grades will be able to tell how a student did in relation to the other students in the class. Criteria grading offers the advantage of allowing a student to perform to his her own level, but as a result it offers no information about the student's rank within a class.

INFORMING STUDENTS OF WHAT IS EXPECTED

Whether you choose normative or criteria grading or some combination of both, it is crucial to make your expectations explicit early on and stick to them. If you vacillate between methods, or change your mind without careful and open deliberation, students will believe that your grading is arbitrary and will resent your efforts. They will learn less and you will be evaluated poorly. Your grading should always be fair, but the students should not imagine that a grade is negotiable. If a student petitions you, claiming that you have made a mistake, consider the claim carefully. Do not simply raise the grade, but do not refuse to consider the matter either. The first actions will fill your office with clamoring students; the latter may well be unfair.

PROVIDING FAST AND VALUABLE FEEDBACK

If grades are going to be useful to the student, they must be informative and they must come back to the student early enough so that he or she can learn from your evaluation. A grade should always include a complete analysis of the student's efforts. The student should know why a paper is a B, what would make it an A, or what needs to be learned to improve the student's understanding. Providing models of excellent and less than excellent answers or solutions can be beneficial because it gives students a concrete idea of what is expected of them. Be careful, however, about using truly dreadful examples in order to get a laugh.

CHEATING

Rensselaer does not tolerate academic dishonesty. There are rules in place (See the Rensselaer Handbook and the Graduate Supplement). You should make every effort to ensure that the assigned work load is rigorous but not overwhelming, and that assignments and exams do not lend themselves to illicit collaboration.

MAINTAINING A GRADE BOOK

See Appendix IV for a sample electronic grade book template.

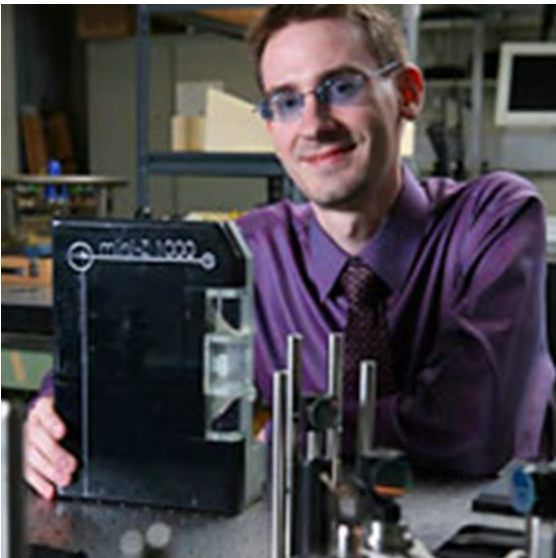
CLASS PARTICIPATION

Some portion of the grade should be reserved for class participation. This encourages students to keep up with the work from day to day. By expecting participation in class, you encourage them to take an active role in their education; they will learn more about the subject and develop a greater command of their social skills. Don't hesitate to ask questions of people who appear to be hiding or even of people who are shy.

KEEPING A GRADE BOOK

Keep detailed and accurate electronic records of your process of evaluation and all conversations with students about grades. If your records are accurate, you will be able to defend grading decisions in the (unlikely) event of a controversy.

A student's progress and achievement are personal matters. Do not publicly post grades. Inform your students that once grades are entered into the Student Information System they will be available the next day.



GRADING AND EVALUATING WRITTEN ASSIGNMENTS

Evaluating written assignments requires locating the answers, understanding the topic along with the elements of good writing. Take some time on your own to review any of the numerous available resources on writing, or even consider taking a writing course to refresh your own writing skills. If you prefer self-instruction, one recent publication, "On Writing," by Stephen King, (yes, that Stephen King), is an excellent choice.³

To grade writing, consider grammar, spelling and content organization. A paper should contain an introduction, the body of the work, and a conclusion summarizing all the main points.

In your feedback to the student, offer suggestions for improvement. Encourage students to continue to write on regular basis, to read extensively across a wide range of topics, and to access the numerous resource materials on the subject of writing. However, while grading, (unless the assignment is literally to evaluate writing skill, or your department or professor has specific writing guidelines), you should look primarily at the student's understanding of the material and secondarily at the student's writing expertise.

3. King, Stephen. *On Writing: A Memoir of the Craft*. New York: Scribner, 2000.

PROFESSIONAL DEVELOPMENT TOPICS FOR EDUCATORS

CHARACTERISTICS OF EFFECTIVE TEACHERS

The following characteristics appear again and again in studies of effective teachers. These qualities can be classified according to a scheme worked out by M. Hildebrand in a 1971 study in which opinions on effective teaching from both faculty and students were analyzed.⁴

<p>ORGANIZATION & CLARITY</p>	<ul style="list-style-type: none"> • explains clearly • is well prepared • makes difficult topics easy to understand • uses examples, details, analogies, metaphors, and variety in modes of explanation to make material not only understandable but memorable • makes the objectives of the course and each class clear • establishes a context for material
<p>ANALYTIC/ SYNTHETIC APPROACH</p>	<ul style="list-style-type: none"> • has a thorough command of the field • contrasts the implications of various theories • gives the student a sense of the field, its past, present, and future directions, the origins of ideas and concepts presents facts and concepts from related fields • discusses viewpoints other than his/her own
<p>DYNAMISM & ENTHUSIASM</p>	<ul style="list-style-type: none"> • is an energetic, dynamic person • seems to enjoy teaching • conveys a love of the field • has an aura of self-confidence
<p>INSTRUCTOR-GROUP INTERACTION</p>	<ul style="list-style-type: none"> • can stimulate, direct, and pace interaction with the class • encourages independent thought and accepts criticism • uses wit and humor effectively • is a good public speaker • knows whether or not the class is following the material and is sensitive to students' motivation • is concerned about the quality of his/her teaching
<p>INSTRUCTOR-INDIVIDUAL STUDENT INTERACTION</p>	<ul style="list-style-type: none"> • is perceived as fair, especially in his/her methods of evaluation • is seen by students as approachable and a valuable source of advice even on matters not directly related to the course

4. Hildebrand, M., R.C. Wilson, and E.R Dienst. *Evaluating University Teaching*. UC Berkeley, Center for research and Development in Higher Education, 1971.

THE ULTIMATE GOAL: ACTIVE LEARNING

If you needed to learn how to do something, would you rather listen to someone describe the process or be invited to join in a demonstration of the process? If you had to form an opinion about something, would you rather listen to someone explain his reasoning or be invited to analyze his reasoning along with him? If you knew you had to remember a large amount of new information, would you rather rush through the material without the opportunity to reflect on it or be given time to review, connect, and apply the information as you went along?

Whether you're facing a lecture hall filled with 300 students or a seminar table with 15 students, one of your primary goals for the class should be to actively engage students with the material. The research is clear: Students learn more when they are asked to actively participate in the process of learning, whether it's through discussion, practice, review, or application (Grunert, 1997). This is in stark contrast to the idea of the student as a passive recipient of knowledge, absorbing information presented by the instructor. For this reason, active learning is an important theme in this handbook. Active learning strategies should be incorporated into every component of your course design. These range from short partner discussions during lecture to problem- or case-based research projects to small-group critical analysis exercises during seminars. Active learning promotes independent, critical, and creative thinking. Students must engage with material in order to practice and develop thinking skills. You can facilitate this by asking students to analyze, synthesize, or apply material, both in the classroom and in class assignments.



For instance, in case-based problem-solving exercises, students must analyze the information they are given, generate or compare possible conclusions and solutions, and decide on a final strategy or interpretation. You can use case studies in a lecture and have students work out their solutions independently or in small groups. You can also use case studies as the basis for major projects or exams.

Another active learning technique that develops thinking skills is debate: you can present competing view-points in lecture and assign students to defend one of the viewpoints in a short (five-minute) written exercise or classroom debate. To further develop students' thinking skills, you might ask students to defend and critique a single view, to "switch" views after they have defended one, or to find a broader perspective that can accommodate key ideas from both views.

Active learning promotes collaboration. Collaborative group work can be an extremely useful addition to a large class. For example, small-group discussions help students understand and retain material while also serving the broader goals of developing their communication skills and increasing their awareness of their classmates as learning resources.

SEVEN WAYS TO HANDLE NERVOUSNESS

1. PRACTICE

Practice doesn't make perfect, but doing a presentation out loud several times before the real thing will make you feel more confident, especially if you practice under conditions as close to the actual situation as possible. Do at least one dry run in front of an audience, even if the audience is just a friend.

2. CONCENTRATE ON THE IDEAS

Concentrate on the ideas you want to get across, not on your own nervousness. Even shy people speak up when it's something they care about. Think about your audience's needs, not your own.

3. MAKE A STRONG START

You'll be most nervous at the beginning of the talk, so start with an introduction that will be easy to remember and that will relax you as well as the audience.

4. VISUALIZE

Rehearse for your first presentation by actually visualizing how it will go. Imagine what you'd like to say, how you'd like to say it, and a positive response from the audience. Many athletes use a similar approach by imagining an entire dive or jump, in detail, before they actually do it.

5. USE AUDIOVISUAL AIDS OR MULTIMEDIA

Particularly if you have lots of technical information to cover, it can be reassuring to have much of it already written on transparencies or PowerPoint slides. Even just an outline on the board can reassure you that you won't forget what you want to say. Be sure to look at your audience as much as possible, however, and not at your outline or PowerPoint slides.

6. ASSUME A CONFIDENT ATTITUDE

To a large extent, you can control your own reaction to sweaty palms or a beating heart. Tell yourself you're "psyched," not nervous. Remember that to an audience, nervousness can seem like dynamism or energy. Your attitude will probably determine what the audience thinks.

7. BREATHE

Right before your presentation, take a few moments to regulate and deepen your breathing. When it comes to public speaking, your breath is your main support. The moment you start to feel a case of nerves building up, take a deep breath. You will start to feel better immediately and your voice will convey your relaxation and confidence.

1. PRACTICE
2. CONCENTRATE ON THE IDEAS
3. MAKE A STRONG START
4. VISUALIZE
5. USE AUDIOVISUAL AIDS OR MULTIMEDIA
6. ASSUME A CONFIDENT ATTITUDE
7. BREATHE

COMMON CONCERNS OF FIRST-TIME DISCUSSION LEADERS

For all their challenges, discussion sections are for many the most rewarding kind of teaching. You have a relatively small number of students whom you will get to know well; if you are like most TAs there will be many students eager to talk to you when they see you on campus. You will have an enormous potential to influence these students. Students crave intellectually surprising, challenging, and stimulating discussions. If you can successfully impart your own passion while helping students reach their own insights, you will have achieved one of the highest goals of the university. As the years pass, you may even run across students who chose your field because of the great discussions they had in your section. Here, we focus on some of the concerns common to first-time discussion leaders:

“HOW CAN I LEAD A GOOD DISCUSSION ON THE MATERIAL WHEN I’M NOT AN EXPERT?”

Many TAs feel overwhelmed by the breadth of material to be covered in their section. They often find themselves going over texts for the first time just a few days before the students do. In other cases, you may be serving as a TA an undergraduate course that you took years ago at a different institution. Unfortunately, there is no simple remedy for this situation. Your first time as a TA or a course, you may simply have to do a lot of preparation. It will be easier, however, if you talk with your colleagues in the course. Help them in your strong areas while they work with you on theirs. Experienced TAs can be of particular assistance. Also, simply attending lecture, even if the professor does not require it of you, will go a long way in preparing you for discussion sections. In addition, discuss with the professor what his or her expectations for the section are. Be clear about the major themes or goals of the course and how these should be reflected in your group’s discussion. Even without being an expert, you will be able to guide the discussion toward the most important ideas. It’s also fine to tell students when you don’t know something (and much better than giving them an incorrect answer!). TAs commonly interact with students in discussion sections. Clear communication with the course instructor about section goals and explicit understandings about student and TA roles greatly enhance the quality of the experience for all involved. It’s important for students to recognize that scholars continue to learn all the time. If possible, tell them how you’d go about finding an answer or bring it to the next class.



Rensselaer Center for Biotechnology and Interdisciplinary Studies

“HOW DO I KNOW IF MY DISCUSSIONS ARE GOING WELL AND HOW CAN I SALVAGE A SECTION THAT ISN’T GOING WELL?”

Usually student attendance, degree of participation or responsiveness, and even expressions, gestures, or body language will give you some indication. Ask students how the section is going, both informally and formally (e.g., through mid-semester evaluations or a small-group evaluation). You can often transform a flailing section simply by asking students how they think their time could best be used in section. Do not be afraid that by acknowledging the lackluster spirit of a discussion you are showing weakness; instead, use it as a springboard to ask students what they really care about and what it would take to turn up the excitement of the section. Students respond positively to any sign that a TA is willing to take feedback and is interested in helping students to succeed in the course. Be willing to shake things up a bit if discussion section stagnates over time; for example, if you usually direct the discussion for the full hour, consider having students discuss the material in pairs first.



Steps down to the Pittsburgh Building, home of the Lally School of Management

THE FIRST DAY OF CLASS

For many TAs, the first day of class can be a daunting prospect. The impression that their students form about them, as well as about the course, may last the entire term. There are many administrative details to cover, but you also want to set the stage for how the section will run for the rest of the semester, and what you and your students should expect from each other. Consider the following suggestions to help you get through the first day and establish a good working relationship with your class.

- First, introduce and say something about yourself, about what you are studying, what you find genuinely interesting about this course, and what your other interests are. Explaining why you find your field exciting will communicate your enthusiasm for the subject you're teaching.
- Decide what you want your students to call you. Help them learn your name by writing it on a corner of the blackboard for the first few sessions.
- Tell your students how, when and where to contact you. Give them your office hours, phone number, and e-mail address. Specify your policy for replying to emails (i.e., same day until 8 p.m.), your policy for outside-office hours meetings (i.e., 24 hour notice) and any hours when you do not want to be contacted.
- Convey your expectations and the expectations of the course as a whole by addressing some or all of the following:
 - What approach does the course take to the subject?
 - What is the role of the section in relation to the course?
 - What kind of preparation is expected?
 - Is attendance required?
 - In what ways will students be expected to participate? How can they best listen to and speak with each other (and not just you)?
 - Will you be distributing study questions, doing in-class writing, working in small groups, etc.? Will there be individual or group presentations?
 - How much time and effort will the course require?
 - How will their work be graded? What are the policies on written work and deadlines?
- Learn students' names and use them as quickly as possible.
- Encourage students to use each other's names as soon as possible. One way to do this is to have students make name tents by writing their names on both the front and back sides of paper sheets folded horizontally that can sit in front of each student for the first few sessions. You can also urge students to address each other directly by name, and compile and distribute a class list with names and contact information.
- Start in on the work as soon as possible. Work through a specific problem or piece of material that illustrates what the course asks of students and what it has to offer them. Engaging students in actual work during the first class communicates seriousness of purpose and gives students (especially those who are still shopping around) an idea of what your class will be like.

HELPFUL HINTS

- Be clearly and conspicuously organized.
- Provide a syllabus.
- Give clear instructions.
- Recommend significant reading materials.
- Use diagnostic tests early.
- Stress major topics and techniques.
- Give real world examples and/or model assignments.
- Review material.
- Encourage discussion among everyone to facilitate active learning.
- Provide quick and useful feedback.
- Encourage revision where possible.
- Avoid Note Reading.
- Learn each student's name, even, and perhaps especially, when the class is large.
- Organize your topic carefully and divide it up into a manageable number of sections.
- Provide each section with a memorable subject heading.
- Begin the lecture by writing those section headings on the blackboard, using Power Point, or using the overhead.
- Explain the general topic for the day, and
- Remind the students about the last lecture and explain how it ties into the present one.
- Take into account differences in learning rates.
- Repeat yourself by saying the same thing in different ways, and at different times.
- Use real life, specific, and memorable examples.
- Break up the talk with questions and demonstrations and try to vary the pace.
- Develop three or four different ideas in the space of an hour.
- Use visual aids and handouts (see right).



**Rensselaer Freshmen
at Navigating Rensselaer and Beyond**

MEDIA SUPPORT

Computer projection and overheads are available from Media Operations, at 276-8282, Website address: mms.rpi.edu/.

Computer equipment is provided on a rental basis, so the course professor must approve its use.

SPECIAL TOPICS

COUNSELING SERVICES

As a TA, you are both teacher and student. You may be quite close in age to the people you teach, and it is very easy to become friendly with your students, to treat them as though they were in a class with you. It is, of course, important to have a good rapport with students, but it is dangerous to be too ingratiating. Evaluating student performance is even more difficult when you are close to your students. You should also not discuss your students with anyone other than the appropriate faculty.

If you play the older sister or brother, you may find yourself providing counseling services. This is not your role. If a student has personal problems, and wants to talk with you about them, be sympathetic, but direct them to the relevant counseling center rather than trying to help them yourself.

If you develop too close a rapport with students, a student may imagine a romantic involvement with you. Under no circumstances should you pursue a relationship other than an instructor-student relationship with any student. Faculty, contingent faculty, teaching assistants and staff are prohibited from having sexual or romantic relationships with students.



Puckman and the Rensselaer Redhawk

COUNSELING SERVICE OFFICES

Counseling Center
276-6479

Chaplains
276-6517

Advising and Learning Assistance Center
Undergraduate Academic Advising
276-6269

Graduate students may contact Mr. Dennis Gornic, Graduate Student Ombudsman, for a confidential meeting to discuss any academic or interpersonal issues that they do not wish to discuss with their department or advisor.
262-6567 / gornid@rpi.edu

EQUAL OPPORTUNITY IN THE CLASSROOM

Rensselaer is attracting and admitting students from diverse backgrounds and cultural experiences. As a TA, you are responsible for ensuring that your classroom decisions are based on academic and educational criteria, and not based on the race, ethnicity, color, religion, gender, sexual orientation, age, marital status, national origin, citizenship status, disability, military or veteran status of the students in your class. To better ensure that your teaching provides equal opportunities for all students to participate Rensselaer's academic and learning experience, we suggest some simple strategies:

- Get to know your students as individuals. When you know their personalities, interests, and backgrounds, you are less likely to stereotype them unconsciously. At the same time, students are more likely to participate in a class in which the teacher has shown genuine interest in them. When students know something about you and your interests, too, you become less of a stereotype to them, and they are more likely to be open to you.
- Become a careful observer of your class. During or after each section, note who participates and the length, depth, and frequency of contributions. Notice the responses students receive, especially when they are interrupted. Observe any differences in tone or approach that occur in your responses to students and their responses to each other.
- Hold all students responsible for the conduct and content of discussions. Encourage each student to elicit information from other students, to collaborate with others, to ask good questions, and to make comments or argue a point. Let students know that being rude or overly competitive, or interrupting and ignoring other students in discussion will not be rewarded.
- Listen to all students with equal seriousness.
- Ask all students the same kinds of questions—don't reserve the abstract questions for one kind of student and the factual or experiential questions for another.
- Keep students from interrupting each other and intervene when comments occur too rapidly to permit a student to initiate or complete their contribution.
- Ask shy or non-participatory students outside of class how they can be helped to participate; you may suggest that they contribute in the next class on a topic in which they have insight or interest.

- Make room for individuals to comment on their personal experiences, but do not put students in the position of speaking for an entire demographic group.
- Model for your students the use of inclusive language in their writing and speaking, e.g., use “humanity” rather than “man.”
- Don’t be intimidated by students who may display contemptuous attitudes toward you because of your background and experiences.
- Find ways to articulate that there is a place for the diverse backgrounds and experiences of all students in your discipline.
- Behaviors and remarks targeted at individuals on the basis of race, ethnicity, color, religion, gender, sexual orientation, , age, marital status, national origin, citizenship status, disability, military or veteran status have no place in the classroom and should not be tolerated. Subtle discrimination goes unnoticed more easily and for that reason may be more dangerous. Remember, your students for the most part are young and may have little awareness of their own biases. They may have had little experience with people of different backgrounds and experiences. Sometimes, it may be your job to help them see and privately question their own assumptions. It is always your job to help every student become a full participant in class, both as a speaker and as a listener. This requires sensitivity to students as individuals and constant evaluations of your own assumptions.

SERVING AS A TA & YOUR PROFESSIONAL FUTURE

Satisfying as teaching can be in its own right, a record of successful TA experiences has become increasingly important to Ph.D.s seeking their first academic position. Even at research universities, search committees look for candidates who combine outstanding scholarly credentials with evidence of teaching ability. In fact, appointment papers for junior faculty



may now specifically include a section in which the candidate's potential or experiences as a teacher must be documented. When you apply for an academic position, you typically will be asked to include a curriculum vitae and three or more letters of recommendation. A vita should list the courses you have taught, the courses in which you have served as a TA, and the courses that you are prepared to teach, but this by itself is not very informative. You should ask at least one of your faculty references to comment on your teaching ability. Also consider preparing a teaching portfolio that best presents your abilities and experience. To increase the value of your TA experience on the job market, we recommend the following:

1. Make sure your faculty supervisors are aware that you will want them to write letters of recommendation that can comment favorably, and specifically, on your teaching.
2. Show evidence of organization and efficiency. Most TAs approach their initial teaching assignments enthusiastically. They are willing to devote a great deal of time and effort to making their section intellectually stimulating. This kind of enthusiasm makes teaching and learning exciting, but remember not to neglect your own graduate work.

Learn to budget your time carefully; you will need to do so for the rest of your academic career. Your future job will probably require a number of obligations besides teaching, and you will only be able to accomplish them by developing an organized and efficient approach toward your classes. Realize that your faculty supervisor may not be impressed by the simple fact that you spend a great deal of time on your course or section (in fact, this could make an unfavorable impression, if your own research falls by the wayside). The best way to make a good impression is to show that you can manage the teaching and your own work. Be as systematic as possible in things like classroom preparation and grading. Keep your outlines, notes, classroom handouts, etc. in proper files; you can make these files available when the time comes to evaluate your performance (e.g., when the professor is writing that letter of recommendation).

3. Consider putting together a teaching portfolio: A comprehensive way of documenting, reflecting on, and strengthening your record as a teacher. As teaching continues to be an important factor in the academic job market, the portfolio is a practical asset as well as a way to develop professionally.

UNIVERSITY RULES

1. STUDENT BILL OF RIGHTS/SYLLABUS
2. SEXUAL HARASSMENT, SEXUAL MISCONDUCT
3. ACADEMIC INTEGRITY

The Rensselaer Handbook and the Graduate Supplement Handbook are necessary sources of information for TAs.

www.rpi.edu/dept/doso/resou...

www.rpi.edu/dept/doso/resou...

1. STUDENT BILL OF RIGHTS/SYLLABUS

The Student Bill of Rights is contained in The Rensselaer Student Handbook and should be read carefully. Basically, students are entitled to a syllabus that provides a full explanation of:

- Course objectives
- What material will be covered
- What material will be tested
- Methods of testing
- Criteria of evaluation
- Procedures for testing
- Dates that assignments are due
- A full description of classroom procedures, any deviation from which should be explained, and a thorough definition of academic dishonesty and the penalties that any dishonesty entails.

2. SEXUAL HARASSMENT

Untoward sexual behavior is a serious offense. You should read carefully the sections in the Rensselaer Handbook concerning the definition of sexual harassment, and become fully knowledgeable of Rensselaer policy and procedures, available through the Human Resources Department, for dealing with complaints.

If you develop too close a rapport with students, a student may imagine a romantic involvement with you. Under no circumstances should you pursue a relationship other than an instructor-student relationship with anyone whom you teach. The relationship between teaching assistants, faculty, and students cannot be sexual in nature.

Statement on Sexual Misconduct

Rensselaer is committed to maintaining a safe and healthy learning, living, and working environment in which no member of the Rensselaer community is, on the basis of sex, sexual orientation, gender identity or gender expression, excluded from participation in, denied the benefits of, or subjected to discrimination in any Institute program or activity. Gender-based and sexual-based harassment, including Sexual Misconduct and Sexual Violence, are forms of illegal discrimination in that they deny or limit an individual's ability to participate in or benefit from the Institute's programs or activities.

Statement on Sexual Misconduct, continued.

In support of our basic principles, the following website (<https://sexualviolence.rpi.edu>) is designed to provide you with education about the Student Sexual Misconduct Policy and Procedures, resources and the ability to report incidents of sexual misconduct, sexual assault, and sexual harassment. Also, an individual can report a concern to the Department of Public Safety (available 24 hours daily), a Title IX Coordinator, a Portfolio Title IX Liaison, the Dean of Students, the Vice Provost and Dean for Undergraduate Education, the Vice Provost and Dean for Graduate Education, or the Student Health Center.

3. Academic Integrity

The violation of academic integrity is a serious offense, punishable by the disciplinary penalties outlined in the Rensselaer Student Rights and Responsibilities Handbook. Violations of academic integrity include, but are not limited to:

- Fraud (altering work after it is returned and claiming it was correct in the first place)
- Collaboration (working with others without authorization from the instructor)
- Copying
- Cribbing (using cheat sheets or electronically accessed information during an exam)
- Plagiarism (claiming to have written something written by someone else)
- Sabotage (destroying someone else's work)

II. IMPORTANT CAMPUS OFFICES – CONTACT INFORMATION

OFFICE	PHONE	EMAIL and/or WEBSITE
Admissions	276-6216	admissions@rpi.edu; http://www.rpi.edu/dept/admissions/index.html
Advising & Learning Assistance Center	276-6571	tedesp@rpi.edu; http://alac.rpi.edu/update.do?artcenterkey=199
Ambulance (from on-campus phones only)	276-6611	
Bursar-Academy Hall	276-6610	bursar@rpi.edu; http://finance.rpi.edu/update.do?catcenterkey=33
Career Development Center	276-6234	http://www.rpi.edu/dept/cdc/
Chaplain's Office- Religious Affairs	276-6518	rnf@rpi.edu; http://www.rpi.edu/dept/chaplains/public_html/
Counseling Center-Health Center	276-6479	counseling@rpi.edu
Dean of Students	276-6266	http://doso.rpi.edu/setup.do
Department of Athletics	276-6685	http://www.rpiathletics.com/
Disability Services for Students	276-2746	dss@rpi.edu; http://www.rpi.edu/dept/doso/dss/index.html
Financial Aid	276-6813	financial_aid@rpi.edu; http://www.rpi.edu/dept/admissions/aid/index.html
Folsom Library	276-8310	http://library.rpi.edu
Health Center	276-6287	readdk@rpi.edu; mulleh@rpi.edu; http://studenthealth.rpi.edu
International Student Services	276-6561	http://www.rpi.edu/dept/doso/ISSS/public_html/
Office of Graduate Education	276-6488	graduate@rpi.edu; http://gradoffice.rpi.edu/setup.do
Office of Minority Student Affairs	276-6273	http://doso.rpi.edu/update.do?catcenterkey=3
Parking & Transportation	276-6616	parking@rpi.edu; http://www.pt.rpi.edu/
Payroll Disbursements	276-8696	http://finance.rpi.edu/update.do?artcenterkey=133
Psychologist (Counseling Center)	276-6479	readdk@rpi.edu; http://studenthealth.rpi.edu/update.do?catcenterkey=2
Public Safety (Emergency calls only)	276-6611	http://www.rpi.edu/dept/public_safety/
Public Safety (non-emergency calls)	276-6656	http://www.rpi.edu/dept/public_safety/
Public Safety Information Line (school closings)	276-6600	http://www.rpi.edu/dept/public_safety/
Registrar	276-6231	registrar@rpi.edu; http://srfs.rpi.edu/setup.do
Rensselaer Union Bookstore	276-6555	bookstore@rpi.edu; http://bookstore.rpi.edu/bookstore@rpi.edu
Rensselaer Union Post Office	276-8602	http://www.union.rpi.edu/pages/view/33
Residence Life	276-6284	http://reslife.rpi.edu/setup.do
Mueller Center (fitness center) and Robison Pool	276-2642	http://www.muellercenter.rpi.edu/
Student Life	276-6505	http://www.rpi.edu/dept/student-life/www/union.html
Voorhees Computing Center Help Desk	276-7777	consults@rpi.edu; http://dotcio.rpi.edu/update.do?artcenterkey=11
Center for Communication Practices	276-8983	http://www.ccp.rpi.edu/

III. ONLINE RESOURCES FOR BEST PRACTICES IN TEACHING

“Active Learning.” Eastern Kentucky University: Teaching and Learning Center. n.d. Web.
<<http://tlc.eku.edu/tips>> Date Last Accessed: 08/03/2010.

“Assignment Design.” Eastern Kentucky University: Teaching and Learning Center. n.d. Web.
<http://tlc.eku.edu/tips/assignment_design/> Date Last Accessed: 08/03/2010.

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<<http://teaching.berkeley.edu/bgd/teaching.html>> Date Last Accessed: 08/03/2010.

“Diversity Within the Classroom.” North Carolina State University. n.d. Web.
<<http://www.ncsu.edu/grad/preparing-future-leaders/diversity-within-classroom.html>> Date Last Accessed: 08/03/2010.

“Faculty Roles and Responsibilities.” Council of Graduate Schools. n.d. Web.
<<http://www.preparing-faculty.org/PFFWeb.Roles.htm>> Date Last Accessed: 08/03/2010.

Felder, Richard M. and Barbara A. Soloman. “Learning Styles & Strategies.” Learning Styles & Strategies. North Carolina State University. n.d. Web.
<<http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSdir/styles.htm>> Date Last Accessed: 08/03/2010.

“The Learning Environment: Learning Styles & Strategies.” North Carolina State University. n.d. Web.
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Sorcinelli, Mary Deane. “Principles of Good Practice: Supporting Early-Career Faculty. Guidance for Deans, Department Chairs, and Other Academic Leaders.” American Association for Higher Education, Washington, DC. 2010. Web.
<http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED450634&ERICExtSearch_SearchType_0=no&accno=ED450634> Date Last Accessed: 08/03/2010.

“Teaching and Learning in the Lab.” North Carolina State University. n.d. Web.
<<http://www.ncsu.edu/grad/preparing-future-leaders/teaching-and-learning-in-the-lab.html>> Date Last Accessed: 08/03/2010.

“Teaching and Learning with Technology.” *North Carolina State University*. n.d. Web.
<<http://www.ncsu.edu/grad/preparing-future-leaders/teaching-and-learning-with-technology.html>>
Date Last Accessed: 08/03/2010.

“Teaching Methods and Approaches.” *North Carolina State University*. n.d. Web.
<<http://www.ncsu.edu/grad/preparing-future-leaders/teaching-methods-and-approaches.html>> Date Last Accessed: 08/03/2010.

“Teaching Tips - Getting Students to Read.” *North Carolina State University*. n.d. Web.
<<http://www.ncsu.edu/grad/preparing-future-leaders/teachingtips.html>> Date Last Accessed: 08/03/2010.

IV. GRADE BOOKS, THE BLACKBOARD GRADE CENTER

If you are grading assignments you will of course need a grade book. TAs who use Blackboard have at their disposal a multifunctional, automated grade submission and monitoring system. Generic grade books can also be found, or see your professor for a template. Here is a screen shot of the Blackboard Grade Center:

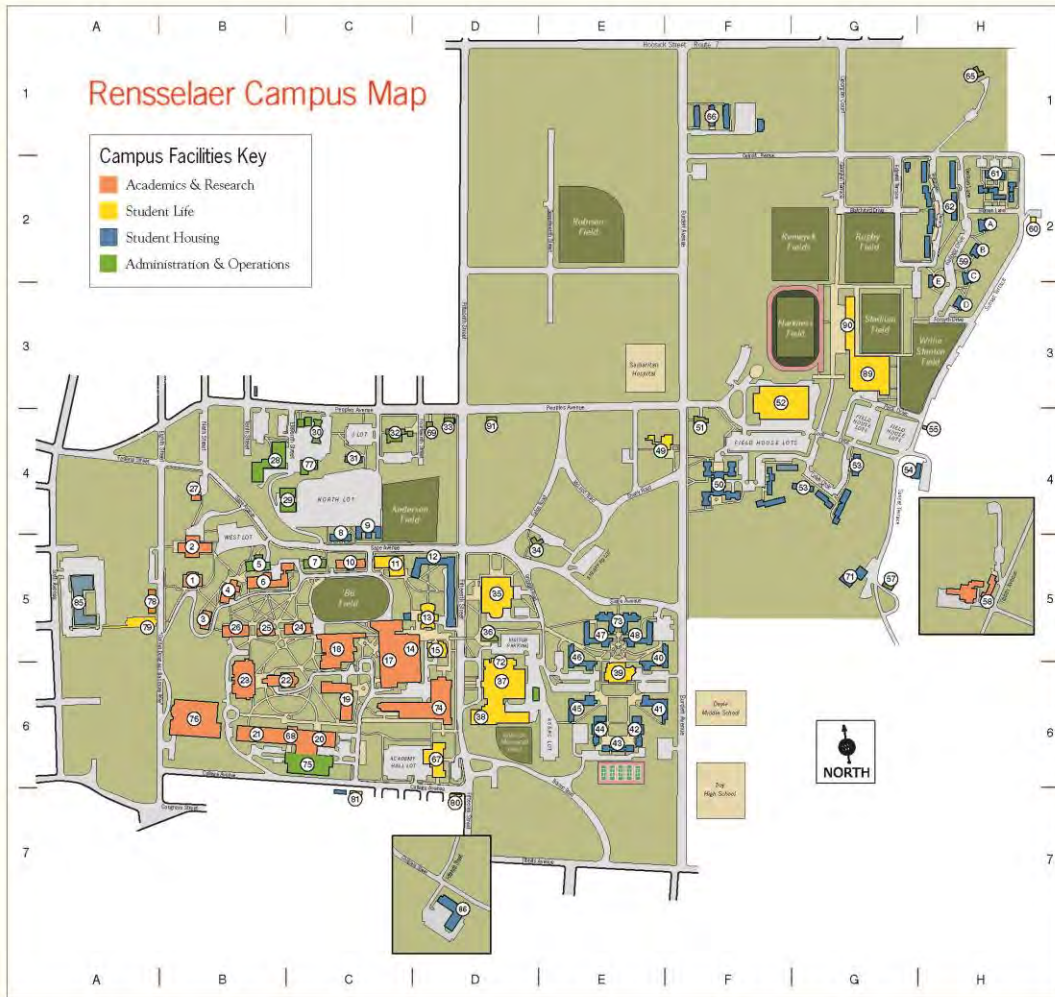
Quiz 1	Week 1 Discus:	Module 2 Quiz	XMas Eve Scen	Module 3 Quiz	Module 3 Discu	Module 4 Quiz
--	2.00	3.00	10.00	3.00	3.00	3.00
3.00	3.00	2.00	0.00	3.00	3.00	2.00
3.00	3.00	2.00	9.00	3.00	3.00	3.00
3.00	3.00	3.00	10.00	!	3.00	3.00
3.00	3.00	3.00	10.00	3.00	3.00	3.00
3.00	3.00	3.00	0.00	2.00	3.00	3.00
2.00	3.00	3.00	9.00	2.00	3.00	3.00
3.00	3.00	3.00	10.00	3.00	3.00	2.00
3.00	3.00	3.00	10.00	2.00	3.00	3.00
3.00	3.00	3.00	9.00	2.00	3.00	2.00

Email

V. LABORATORY CONTACTS

Lab	Phone #
BIOLOGY	518-276-8431
BMED	518-276-2763
CHEM	518-276-2115
GEOL	518-276-2372
MATL	518-276-4079
MATL	518-276-8034
MANE	518-276-6406
MANE	518-276-2212
PHYSICS	518-276-8414

V. RENSSELAER CAMPUS MAP⁶



#	Building Name	Map Location	#	Building Name	Map Location	#	Building Name	Map Location
67	Academy Hall (Financial Aid, Student Life Services Center, Health Center)	.6D	58	Empire State Hall	.6C	60	Radio Club W2SZ	.2H
37	Admissions	.5E	18	Engineering Center, J. Erik Jonsson	.5C	53	Rensselaer Apartment Housing Project RAHP A Site (Single Students)	.4G
32	Alumni House (Hefner)	.4C	76	Experimental Media & Performing Arts Center (EMPAC)	.6B	62	Rensselaer Apartment Housing Project RAHP B Site (Married Students)	.2H
37	Alumni Sports & Recreation Center	.6D	52	Field House, Houston	.3F	35	Rensselaer Union	.5D
26	Amos Eaton Hall	.5B	23	Folsom Library	.6B	10	Ricketts Building	.5C
75	Barton Hall	.5E	31	Graduate Education, 1516 Peoples Avenue	.4D	38	Robison Swimming Pool	.6D
69	Beman Park Firehouse	.4D	24	Greene Building	.5C	81	RPI Ambulance	.7C
29	Blaw-Knox 1 & 2	.4C	57	Greenhouses and Grounds Barn	.5G	13	Russell Sage Dining Hall	.5D
35	Blitman Residence Commons	.5A	11	'87 Gymnasium	.5C	6	Russell Sage Laboratory	.5B
15	Boiler House, Sage Avenue	.5B	31	H Building	.4C	19	Science Center, Jonsson-Rowland (Hirsch Observatory)	.6C
77	Boiler House, 11th Street	.4C	16	Hall Hall	.6E	55	Seismograph Laboratory	.4H
48	Bray Hall	.5E	30	J Building	.4C	28	Service Building	.4B
61	Bryckwyck	.2H	20	Java++ Cafe, 1527 Fifteenth Street	.7D	43	Sharp Hall	.6E
51	2144 Burdett Avenue	.4F	25	Lally Hall	.5B	59	Stacwyck Apartments	.2H
50	Burdett Avenue Residence Hall	.4F	58	LINAC Facility (Gaertner Laboratory)	.5H	59A	Roussseau Apartments	.2H
13	Carnegie Building	.5B	79	Louis Rubin Memorial Approach	.5A	59B	Williams Apartments	.2H
47	Cary Hall	.5E	21	Materials Research Center (MRC)	.6B	59C	Wiltzie Apartments	.2H
29	Center for Biotechnology and Interdisciplinary Studies (CBIS)	.6D	72	Mueller Center	.6D	59D	McGillert Apartments	.2H
14	Center for Industrial Innovation, Low (CI)	.5D	11	Nason Hall	.6E	59E	Thompson Apartments	.2H
49	Chapel and Cultural Center	.4E	27	41 Ninth Street	.4B	71	133 Sunset Terrace	.5G
20	Cogswell Laboratory	.6C	8	North Hall	.5C	54	200 Sunset Terrace	.4H
65	Colonie Apartments	.1F	14	Nugent Hall	.6E	7	Troy Building	.5C
39	Commons Dining Hall	.6E	75	Parking Garage (Faculty/Staff)	.6C	22	Voorhees Computing Center (VCC)	.6C
40	Crockett Hall	.5E	65	Patron Manor	.1H	4	Walker Laboratory	.5B
17	Darin Communications Center (DCC)	.6C	33	2021 Peoples Avenue	.4D	45	Warren Hall	.6E
82	Davison Hall	.6E	1	Pittsburgh Building	.5B	3	West Hall	.5B
59	E Complex	.5C	15	Playhouse	.5D	78	Winslow Building	.5A
89	East Campus Athletic Village Arena (ECAV)	.3G	86	Polytechnic Residence Commons	.7D			
90	East Campus Athletic Village Stadium	.3G	36	Public Safety	.5D			
			12	Quadrangle Complex	.5D			

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7. Edgerton, Russell, Patricia Hutchings, and Kathleen Quinlan. *The Teaching Portfolio: Capturing the Scholarship in Teaching*. Washington, D. C.: American Association for Higher Education, 1991. A thorough and practical orientation for teachers who would like to document and reflect on their teaching through the creation of a personal teaching portfolio.
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Revised May 24, 2016, dg