STUDIO EXPECTATIONS AND ETIQUETTE

MODELING AND SIMULATION

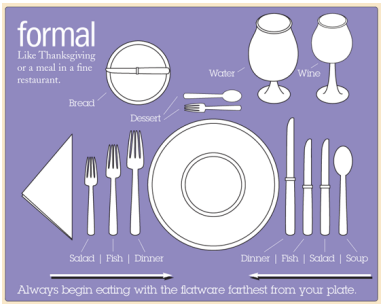

Figure 1: Not really this kind of etiquette.

Class format

This class will be offered primarily in studio format, which means that you will spend the majority of class time working in teams on exercises and case studies. We will also have weekly meetings in the auditorium.

This format may be new to you, so the goal of this document is to lay out our expectations and suggest guidelines that will help us all work efficiently.

Studio time

We reserve as much studio time as possible for you to work. The primary kinds of work are exercises and case studies. Exercises are relatively short and mostly intended to check your understanding of the material you will need to do the case studies. The case studies are longer, open-ended activities involving modeling and simulation of physical systems[1].

[1] Like ducks.

We try to meet with each group at least once during each class session, but in order to do that, we have to be efficient. Here are some things you can do to help:

- We need to be able to interrupt you. If one of us comes to your work space and you need a few seconds to get to a good stopping point, that's fine. If you want us to come back later, we will try, but it may not be possible to accommodate you and still meet with all groups.
- Many case studies ask you to produce intermediate deliverables that are intended to facilitate your discussions with us. For example, we might ask you to draw a free-body diagram before you implement a simulation. In order to use our time effectively, it will be important for you to prepare these deliverables on time. If you miss 1–2 deadlines over the course of the semester, that is understandable; missing more than that is evidence of a problem we should address.
- This class requires you to write computer programs that simulate models of physical systems. One of the goals of this class is to develop your ability to write programs, and debugging is an integral part of that process. Therefore we will almost never debug your programs for you. At most, we might suggest techniques that will help you find errors.

We will also encourage you to adopt program development processes that avoid bugs in the first place.

- When we are meeting, we expect to have the full attention of all members of your team. Closing your laptop is one effective way to signal that we have your attention[2].

[2] Playing minesweeper is not.

Auditorium time

We will meet roughly once every week in the auditorium. During this time we will do a variety of things such as delivering lectures, listening to speakers and gathering feedback. You are probably used to this format, but there are a few things we would like you to be aware of.

- The auditorium is a large space. Please don't sit at the back. Fill up the rows from the bottom and don't be surprised if we ask you to move in order to create a better atmosphere.
- Unless otherwise instructed, please do not have your laptops open. In addition to being rude, it is distracting to other students and to us[3].
- We expect you to participate frequently, but not to dominate the room. Don't be surprised if we ask you a question while you are busy trying to melt into your seat, or ignore you if you have had enough air time.

[3] If you must multitask please bring your knitting—we are partial to scarves.

Responsibilities

This class is like a job. Your primary responsibility is to show up, be professional, and make consistent[4] progress on the task at hand.

Our primary responsibility is to create an environment and provide support that makes it possible for you to make progress.

Here are some suggestions that will help you meet your responsibilities:

[4] Doing everything at the last minute is not consistent progress.

- Come to class on time[5]. We make important announcements at the beginning of class. If you are late, you will not know what is going on.
- Come to class in a condition conducive to effective work, which means that you should have adequate food and rest[6].
- Use your work space effectively. Make sure you have enough clear table space to lay out your materials. Assemble the tools you will need—including paper, pens and pencils, tape and pushpins—at the beginning of each session.

[5] All three of us have young children. If you think 9am is early, you will get no sympathy from us.

[6] The most important things you can do to be successful in college are to eat well, sleep well, and get some exercise.

- Use the pin boards to create a persistent record of your activities. This record is helpful to you as a visual reminder; it also facilitates cross-fertilization between teams. If you are not posting material, you are not contributing to this public exchange.
- Thanksgiving Break begins at 5pm on Friday 21 November, no sooner. Please don't ask us if it is OK to miss class[7].
- Dress appropriately. On most days, casual clothing is fine[8]. On some days we will ask you to dress more professionally.

[7] It is not OK.

[8] No pajamas, please.

Collaboration

You are expected to communicate and interact effectively with your teammates. That doesn't mean that you have to work together all the time; you should be working independently at least some of the time. But if you are working entirely alone, you are failing to achieve one of the goals of this class, and you are unlikely to be successful.

Every member of your team is responsible for the learning of every member of the team. In a production environment, it can be effective to specialize, allowing team members to focus on what they do best without understanding the details of what the others are doing. But division of labor is sometimes contrary to the goals of an educational environment. It is more important to strengthen your areas of relative weakness than to practice familiar skills.

We will give you more specific suggestions for effective teamwork later.

YOU ARE WELCOME AND ENCOURAGED to discuss case studies and exercises with other groups as long as these interactions are consistent with your educational goals. For example, if you read someone else's program in order to learn a new technique and apply it to your own implementation, that is a good way to learn. But if you copy a program you don't understand instead of learning to develop your own, you are undermining your own education.

You should maintain the autonomy of your team, which means that your should be making your own choices and not following another team or doing what you think you are supposed to be doing.

Evaluation

In this class you will evaluate the work of other students and your work will be evaluated by your peers and the faculty. You will be

expected to provide and accept criticism professionally.

Here are some suggestions:

- Each time we meet with your team, we will try to give you explicit feedback of one of the following kinds:

  Good: As far as we can tell, you are on track to a successful completion of the project[9].

  Bad: In our considered professional judgment, you are doing something that is not moving your project in the right direction. In this case we will usually give you explicit instructions[10].

  Don't know: This usually means that you are doing something other than what we expected, and we can't tell yet whether it is likely to succeed. In this case we will usually let you keep going for a while[11]. We might suggest a testable milestone to aim for before the next meeting.

  When you evaluate other students' work, you might find it helpful to ask yourself two questions:

  - What is the best aspect of this work, and is there a way I can emulate it in my work?
  - What is the single most important thing this student could do that would make this work better?

  Summative judgments like, "That was pretty good," are usually not very useful.

We are looking forward to working with you this semester! We hope these guidelines help you get the most out of the class.

[9] Of course, that is no guarantee that the bottom won't drop out.

[10] If you take our advice, we will be sympathetic if it doesn't work out. If you ignore us, we will still be sympathetic, but we will also be quietly amused.

[11] Have fun storming the castle!