

# 477 Digital Design Capstone

## Interactive Art for the Atrium

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Welcome to 477, the Digital Design Capstone course. This course should be like no other that you have taken in the CSE department. The department has a different goal by offering this course compared to others. These goals are as follows:

- \* To have you work in a larger team than in the past to learn about coordinating such groups.
- \* To learn how to design and develop a large project.
- \* To work in an “industry-like” setting with an overall project manager and various team leaders.
- \* To learn to thoroughly document both the technical *and* managerial aspects of your project.

Note that absent from the above list is any new technical content. This is the first year that 477 is being taught with both 467 and 466 as a prerequisite and there are no “grandfathered” status students<sup>1</sup>. One implication of this is there is no class lecture as you would normally expect. What are we going to do with our class lecture time? We are going to hold peer reviews (as in you reviewing your fellow students); more on this later.

**Schedule:** Roughly speaking (this **will** change) the schedule of this class is as follows:

Week 1: form groups (minimum 3, maximum 4) and develop project ideas  
Week 2: present project idea to class for feedback and turn in design document  
Week 3: Work on projects  
Week 4: Mimed Peer reviews  
Week 5: Mimed Peer reviews  
Week 6: Peer reviews  
Week 7: Peer reviews  
Week 8: Work on projects  
Week 9: final project presentations  
Week 10: final project presentations

**Groups:** Groups will be formed for you. Please fill out the skills set and area preference. In addition if you have a person or two you would like to share a group with please list them as well. **We cannot accommodate all such requests.**

**Group roles:** Each group needs to assign to group members one of 3 roles (groups of 4 can have an opt-out person from this on a weekly basis). In all cases these 3 roles should rotate among group members (so that each person gets to try their hand at each role). The roles are: leader,

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<sup>1</sup> Note: there are some students enrolled who have not taken both of these courses, however, they have sought (and been granted) exceptions to this prerequisite on the understanding that they are already competent in their mastery of the 466/467 material.

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treasurer, and documenter. The purpose of these roles is described below:

**Group leader:** This is the person I want to talk with each week about your project status. The person is generally the manager of your group for that week. As the mid-level manager this person is also who the TA's and myself want to interact with each week to get a status update. The person is also answerable if your group flakes out that week.

**Group treasurer:** The lab has many parts. However, in this class you are going to be building some hopefully cool stuff and there will be some items we will not have. Generally speaking, if those items are **less than \$10** and the group itself has spent **no more than \$100** then the group should seek approval from the treasurer and just buy the item. You will be reimbursed for it. If the item exceeds either of these two caps then the treasurer should come talk to me or the TA's for approval prior to spending the doe.

**Group documenter:** Each group should maintain a running website. The website should be self contained in the sense that anyone (not just you or me) should be able to go to the website, figure out what your project is, and get a status update on (a) what your total timeline schedule is, (b) where you are in the completion of this schedule, and (c) what you plan to accomplish in the coming week and (d) what you planned to accomplish in the past week and whether or not that happened; (e) for each week who is what role in the group.

Furthermore **each group member should log their working time** at the website. As in, even if you pop down to the lab for 5 minutes to change a resistor on your board you should make an entry into your personal work log. Why do we ask you to do this? It has nothing to do with grading, but rather we want you to fully realize at the end of the quarter how much time you have spent on the project.

**Weekly meetings:** The group leader should plan on meeting with myself and/or the TA's every week. We are going to ask you about the current status of the project, how are the group dynamics going, what you hope to accomplish in the coming week, is there anything we can do to help, etc. These meetings should last 10-30 minutes and a schedule and system for them will be announced shortly.

**Mimed peer reviews:** You will note there are 2 types of peer reviews listed on the schedule. "Mimed" and normal. What I mean by mimed (for lack of a better word) is that you, as a group, will review another group and present your review to the class. You will conduct this mimed review by *only* examining the other group's website. Your review should contain a 2-3 page critical evaluation of the other group; this evaluation is shared with the other group. Furthermore you should present, in class, a 15-20 minute overview of the other group's project, and their current status. Everyone will be able to comment on your review and the project.

**Normal peer reviews:** Later in the quarter you will see normal peer reviews. For these you as a group write 2-3 pages on your project and share this with the class. Furthermore you as a group spend 15-20 minutes in class presenting your project for feedback and review.

**Stuff that is due:** Throughout the quarter several items are due. At the end of week 1 a project

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description is due (short). At the end of week 2 you should have your website up and running with all of the documentation. At the end of week 3 a 1 page “marketing glossy” for your project is due. At the end of week 7 a project report draft (10 pages or so) is due. At the end of week 10 a project report is due.

**Exams:** There are no exams.

**Late policy:** As this class is meant to mimic a work environment there really ought to not be a late policy (late to often and we should just fire you ;-). So there is no late policy. You will note that most of the items that are due are “peer review” items, so if you are late you really disrupt the course organization and flow.

**Grading:** How exactly do we grade this course? Well, first, we grade on your commitment. If you are a slacker employee then you will be graded accordingly. If you work hard but have bit off more than you can chew, we’ll look kindly upon you. If you complete an awesome project, well you will walk away with a happy grade. Basically you can expect your grade to be a combination of the following: 2/3 effort, 1/3 outcome. You will note that this does not seem to match the paper documents and peer reviews. It in fact does. If you put a solid effort into the peer review then you will be graded well; if your review is useful and productive then its has a good outcome; and so on.

**Group divorce:** It can happen. This is a work intensive class. It has been known to break friendships. If your group is dysfunctional part way through the quarter then you should all (or individually) come talk to us. Groups can be split midway through the quarter.

**Our roles as managers:** We have spent all this time talking about your role in the class, but what exactly is our role? Our role is to pretend to be the upper level management. That is we meet with you, keep abreast of your progress, and question your assumptions.