Spatial Media Studio
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Thursday 9:30am - 12:00pm
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H79.2756

Description

Computer screens are nothing new. But what happens to the screen when it becomes a table or a mirror or a sidewalk? How does one design for such a screen? This course explores how interactive media can be integrated into physical spaces and furniture through the creative use of projectors and embedded displays. The course also examines the multitude of questions that arise when designing for this type of media. Emphasis will be placed on the role of spatial and social context and the importance of relevant content within each of these environments. Technical topics include display integration techniques, vision-based sensing, physical sensing, and methods of fabrication. Students will work in pairs to complete two large projects over the course of the semester. These projects will be evaluated on both the quality of the design and the success of implementation. Additionally, there will be weekly assignments that challenge students to consider a wide variety of spaces that are ripe for transformation through the integration of digital media. Since this class will involve programming on an intermediate level, a working knowledge of Processing or C is a pre-requisite.

Schedule

Week 1. Introduction, Philosophy, Field Review

Week 2. Display Integration Techniques, Project 1 Introduction

Week 3. Vision Sensing 1 (Low Level Processes), Project 1 Proposal Review

Week 4. Vision Sensing 2 (Higher Level Processes), Project 1 Design Review

Week 5. Vision Sensing 3 (Calibration), Project 1 Engineering Review

Week 6. Vision Sensing 4 (Cameras & Lenses), Project 1 Progress Review

Week 7. Project 1 Final Presentation

Week 8. Materials & Fabrication, Project 2 Introduction

Week 9. Physical Sensing 1 (Presence), Project 2 Proposal Review

Week 10. Physical Sensing 2 (Touch), Project 2 Design Review

Week 11. Physical Sensing 3 (Distance & Motion), Project 2 Engineering Review

Week 12. Guest Lecture, Project 2 Progress Review

Week 13. Open Topic Lecture, Project 2 Second Progress Review

Week 14. Project 2 Final Presentation
Grading

Weekly Assignments: 35%
Midterm and Final Projects: 50%
Course Participation: 15%

Attendance

It is expected that students will come to all classes on time, unless the professor has been notified otherwise. Repeated tardiness will affect the participation grade. Three (3) absences will result in a failing grade.

Assignments

Students should expect to spend at least 6 hours every week working on assignments outside of class. This includes both weekly assignments and longer term projects. Students are expected to complete assignments on time. Late assignments will be docked a letter grade. Misunderstanding of an assignment is not an excuse for lateness.

Laptops

Laptops should be used for taking notes and working on assignments. Students using laptops for other activities during class will be asked to close their laptops and take notes by hand.

Office Hours

While there are no set office hours, tutoring is available on site for any student who requests it. In addition to tutoring, the professor is available via email and will respond to student questions as quickly as possible. Asking for help is strongly encouraged.

Reading

In addition to lecture notes that will be posted online every week, students will find the following books worth having on their bookshelves both during and after this course.


