DES/FIB 300 Interactive Laboratory
Responsive Environments
Spring 2009
Friday, 10am-3pm
Hinds Hall, Innovation Studio (Ground floor)

Instructors
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Teaching Assistants
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Course website
http:colab.syr.edu/responsiveenvironments

OFFICE HOURS

MCALLISTER
By appointment
COLAB, Warehouse, 4th Floor

ROBINSON
Thursdays, 3pm-5pm
ComArt 119

SNYDER
Wednesdays, 12pm-2pm
Hinds Hall 221

BELOVARICH (Lab hours)
By appointment
Monday, 6-11pm
Smith, 3rd Fl Computer Cluster

COURSE DESCRIPTION

Students will explore the intersection of information, interaction, and installation art in this cross-disciplinary course taught by professors from Art, Design and the iSchool. Investigate the functional, conceptual and expressive possibilities of weaving together materials, technology and interaction.

Studio projects will intersect materials, information, information policy, design, project management, and interaction in physical space. Study will include programming microcontrollers, use of sensors and emitters, functional or non-functional sculpture, various data and information sources, video and sound. Prior coding experience helpful but not required.

LEARNING OUTCOMES

The objectives of this course are:
1. To develop fluency and confidence in your ability to express yourself though basic interactive electronic technologies.
2. To encourage collaborations between classmates from various disciplines including art, design, engineering and information studies.
3. To develop a self-directed learning practice based on tenaciousness, fearlessness and curiosity that will enable you to step into the unknown and solve problems.
4. To create a safe place for experimentation.
5. To create an awareness of the history and context of Responsive Environments.
6. To wrestle with the challenging discourse surrounding technology and the body.
7. To develop the habit and skill of documenting your work as an integral part of your creative practice.

REQUIRED MATERIALS

You will be best served by using your own laptop for labs and programming assignments. If you do not have a laptop that you can bring to class each week, contact one of the instructors **immediately**.

Although there is no required textbook for this course you will be required to obtain a license active for the duration of the semester for the software application MaxMSP. Details regarding downloading the software and obtaining a student or demo license will be covered during the first class meeting. Be sure to bring your laptop to the first session so that we can get everyone up and running.

Reading assignments will be distributed as PDF documents via the course website.

CLASS POLICIES
Attendance and Participation
Attendance is required and excused only for medical or special circumstances. Each absence beyond **three** (including both excused and unexcused) during the semester will result in an automatic drop in your final grade of one whole letter (i.e., from a final grade of B to a C).

If you need to miss a class, email the instructors as soon as possible *before* the missed class to alert them. You are responsible for obtaining class notes, materials and assignments from a classmate.

Lateness is defined as coming in after roll call. After 4 "lates" each subsequent "late" will result in your final grade being dropped one letter.

Failure to participate will also negatively impact your grade. Participation includes being present in class, voluntarily contributing to discussions, completing all assignments on time and actively engaging with team members during group assignments.

Academic Integrity
The academic community of Syracuse University and of the School of Information Studies requires the highest standards of professional ethics and personal integrity from all members of the community. Violations of these standards are violations of a mutual obligation characterized by trust, honesty, and personal honor. As a community, we commit ourselves to standards of academic conduct, impose sanctions against those who violate these standards, and keep appropriate records of violations. The academic integrity statement can be found at: http://supolicies.syr.edu/ethics/acad_integrity.htm

Student with Disabilities
In compliance with section 504 of the Americans with Disabilities Act (ADA), Syracuse University is committed to ensure that "no otherwise qualified individual with a disability…shall, solely by reason of disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity…" If you feel that you are a student who may need academic accommodations due to a disability, you should immediately register with the Office of Disability Services (ODS) at 804 University Avenue, Room 308 3rd Floor, 315.443.4498 or 315.443.1371 (TTD only). ODS is the Syracuse University office that authorizes special accommodations for students with disabilities.

Homework Policy
Assignments will need to be uploaded to the class website by the start of class on the due date. Late assignments will be penalized.

Select work may be featured during class discussions.

A documentation template will be provided for formatting your homework assignments. This template will need to be completed fully to receive credit for each assignment. In additional to being turned in using the documentation template, the large final project will also be presented to the group during a formal critique.

Future Use of Student Work
On occasion, we may ask you to show or post your work in a public area of the class website so that your peers can provide comments.

Because of the advantage of viewing and critiquing examples of work created for this class, some students' work will be shown to future classes. Enrollment in this course constitutes agreement to this documentation. Syracuse University policy states: In compliance with the federal Family Educational Rights and Privacy Act, works in all media produced by students as part of their course participation at Syracuse University may be used for educational purposes, provided that the course syllabus makes clear that such use may occur. It is understood that registration for and continued enrollment in a course where such use of student works is announced constitutes permission by the student.

GRADING

Individual assignments
A grading rubric (evaluation form) will be provided with each assignment. Grades will be based on a combination of successful completion of requirements and effort.

Group assignment
Your work for this class will include both individual and group assignments. Your grade for the group assignment will be based on the project as a whole, not on the basis of any one individual's efforts.

Assignment weighting

Group Assignment	50%
Concept development	10%
Implementation	10%
Collaborative effort	10%
Presentation	10%
Overall effectiveness	10%
Individual Assignments	**35%**
Approx. 7 (MaxMSP and other small assignments	5%
Participation	**15%**
Readings	5%
Documentation	5%
Class participation	5%

CLASS SCHEDULE

This schedule is tentative and subject to change. During the first seven weeks of the course, class will be divided into content lectures/discussions (roughly 1 hour); review of assignments and special guest lectures (roughly 45 minutes) and technical demos/lab sessions (approximately 2 hours). There will be a one hour break for lunch.

Date	Concept Building Topic	Technical Topic	Assignments
Jan 16	**Introduction to the Interactive Laboratory** *COLAB* *Intersection of Design, Art and Information* *Instructors* **Syllabus** **Concept Development** *Introduce conceptual thread* *Information Science: How we got from libraries to computers* *Willy Wonka and the Chocolate Factory: Mike TeeVee* *Input Manipulation Output* *Reading Assignment* *Observation Assignment* **Introduction to Responsive Environments** *Slides of 4-5 pieces*	**MaxMSP Lesson 1** *Experience projects* *Patch interfaces* *Build an example*	**DUE** **ASSIGNED** MaxMSP: Tutorial 0 Reading: Concepts of Information Observation Assignment: Process-Knowledge-Thing
Jan 23	**Information basics** *Discussion of reading* **Documentation** *Look at observation assignments* *Introduce template* **Collaborative design basics** *This is hard. Is this hard?* *Collaboration as a tool* *Emergent solutions*	**MaxMSP Lesson 2**	**DUE** Tutorial 0 Reading: *Concepts of Information* Observation Assignment **ASSIGNED** MaxMSP: Assignment 1
Jan 30	**Interface** *Connecting Information Spaces with Human Spaces* *Artificial Intelligence* *Input/Output* **Material** *Embodiment: making an idea physical, concepts in materials* *Multimodality: Choosing a means for a message*	**MaxMSP Lesson 3**	**DUE** MaxMSP Exercise 2 **ASSIGNED** MaxMSP Exercise 3 Readings: - *As We May Think*, Bush - *ComputerLib/Dream Machine*, Nelson

Date	Concept Building Topic	Technical Topic	Assignment Due
Feb 6	**Structures** *Binary systems* *Continuums and spectrums* *Networks and hierarchies* *Static vs. dynamic* *Interactions*	**MaxMSP Lesson 4**	**DUE** Readings: - *As We May Think*, Bush - *ComputerLib/Dream Machine*, Nelson MaxMSP Exercise 3 **ASSIGNED** MaxMSP Exercise 4
Feb 13	**Artificial environments** *Angels on the head of a pin* *Mathematical models* *Virtual reality* *Augmented reality* *Social experiments/ Social sculpture*	**MaxMSP Lesson 5**	**DUE** MaxMSP Exercise 4 **ASSIGNED** Reading 3: - *Responsive Environments*, Krueger - *Changing Space*, Davies MaxMSP Exercise 5
Feb 20	**Intro to Final Project– Responsive Environments** *Examples* *Discussions* *Refinement of group assignment (as a class)* *Teams determined* *Group discussion of reading* *Brainstorming and team work session* **Research and conceptualization** *Prototyping* *Brainstorming* *Iteration*	**MaxMSP Lesson 6**	**DUE** Reading 3: - *Responsive Environments*, Krueger - *Changing Space*, Davies MaxMSP Exercise 5 **ASSIGNED** Final Project (long term) Sketches of concepts MaxMSP Exercise 6

Date	Concept Building Topic	Technical Topic	Assignment Due
Feb 27	**Critical perspectives** *Objective, Subjective, and Socially Constructed Knowledge* *Surveillance* *Privacy* *Credibility* *Biometrics* *Relevance* **Group discussion of concepts in progress** **Models and mock-ups** Discussion of models and mock-ups	**Workshop** *Review lessons to date* *Resolve specific questions/problems as a group*	**DUE** Sketches of concepts MaxMSP Exercise 6 **ASSIGNED** Mock-up assignment
Mar 6	**Group discussion of mock-ups** *Each team will present three alternative concepts (rough prototypes and/or storyboards)* *Informal group critique* **What is a proof of concept**? What is a proof of concept?	**Open Lab**	**DUE** Mock-ups **ASSIGNED** Proof of concept assignment
Mar 13	SPRING BREAK - No class		
Mar 20	**Group discussion of proofs of concept** *Group discussion* *Individual team meetings with instructors* **Concept Refinement** **What is a prototype?**	**Open Lab**	**DUE** Proof of concept **ASSIGNED** Full Scale Prototype
Mar 27	**Workshop** *Team work session*	**Open Lab**	
Apr 3	**Present full scale prototype to instructors** *Present to instructors* *Troubleshooting*	**Open Lab**	**DUE** Full scale prototype
Apr 10	UNIVERSITY HOLIDAY- No class		
Apr 17	**Workshop** *Troubleshooting* *Documentation*	**Open Lab**	
Apr 24	**Presentation and Final Critique** *Presentation of final projects* *Venue TBD*	**Open Lab**	**DUE** Final projects and documentation