

## **WEARABLES + SOFT COMPUTING**

The School of the Art Institute of Chicago

**Mondays 9:00AM-4:00PM**

Room: **MICHIGAN 426**

Class Blog: [wearables.tumblr.com](http://wearables.tumblr.com)

Instructor: **Margarita Benitez** – [mbenit@saic.edu](mailto:mbenit@saic.edu)

Office Hours: by appointment

ATS Kinetics and Electronics Facilities Manager: Anna Yu – [ayu@artic.edu](mailto:ayu@artic.edu)

### **Course Description:**

This course will focus on wearables and "soft" computing as a vehicle for subversion and artistic appropriation. Readings will emphasize theoretical discourse on the relationships of the body, technology, fashion, social interactions and environment. Concepts will be developed, designed and prototyped into working pieces by participants addressing personal expression and social dialog. Soft circuits (conductive paint, fabric, etc), new and recycled materials will be explored in the development of expressive computational forms.

### **Course Requirements:**

*assignments:* Students are required to complete all weekly exercises and to present substantial work in both projects for critique at mid-semester and at the end of the term. Assignments are due at the beginning of the class following the one in which they are assigned. Each student needs to create an account at [wearables.tumblr.com](http://wearables.tumblr.com) which will be the course community website. It will be used to post any assignments, projects and documentation as well as research and techniques. All assignments are due at the beginning of class as they will be discussed first thing in the morning.

*sketches, research, readings and projects:* Students will be asked to give 4 presentations during the semester: one project progress presentation, one project presentation, one material research presentation and one technique research demo. Presentations will focus on an articulation of the student's own developing creative and technical practice in relationship to other artists, works, concepts. The goal will be for the student to define an area of research and artistic and technical concern as the semester progresses and the student begins to formulate a final project.

*individual meetings:* Periodically, I will schedule time for each student to address project specific questions and gauge progress. In general, I will often work one-on-one with students during lab sessions.

*Syllabus:* Please note that the syllabus is subject to change and should be referred to often. Updates will be posted weekly on [wearables.tumblr.com](http://wearables.tumblr.com)

**Course Electronics Kit:**

The course electronics kit is \$55 and contains:

- 1 breadboard
- Lilypad Arduino
- FTDI Lilypad Arduino Programmer
- AAA Power Supply for Lilypad Arduino
- USB Cable
- 1 Bend Sensor
- 1 Flexible Solar Panel

**Materials:**

Students are expected to obtain their own materials for this course for their projects. Each project will have different supply requirements. We will discuss how to obtain different materials and students will be given a list of suppliers. The ability to search for and obtain proper materials is essential to completing a soft computing project. The Electronics / Kinetics Shop can provide fasteners, simple electronic components. There are old devices and equipment on the shelves of the classroom that can be harvested for parts in projects.

**Attendance:**

Attendance and participation in critiques/presentations is mandatory even if your project is not complete. You cannot receive credit for this course if you miss a critique unless it is for a documented medical reason. Students are expected to attend and participate in each class period. This is a six hour studio course and students are expected to attend the entire day. If a student wishes to work outside of class they must receive permission. If a student is late 2 times this is the equivalent of 1 absence. If a student has more than 3 absences they will not pass this course, on the fourth absence the student will receive a failing grade.

**Participation:**

Participation on tumblr, in the labs and demonstrations is essential. Students must become familiar with the technical processes to complete the assigned projects. Take advantage of using resources during class time as some areas, such as the SMD lab, will not be available outside of class time. Students are expected to complete all assignments, including readings and Tumblr posts for discussion in class.

**Weekly Readings and Class Blog:**

There will be several short readings assigned over the course of the semester that will be discussed each class meeting. Each week, 1 or 2 different students will be in charge of leading the discussion about that reading. They will be responsible for bringing up key points raised in the articles and posing questions to the group for discussion. That student should pass out a list of key points for discussion to the class. The class will also maintain a blog where students will be required to post results of their own projects as well as the work of other artists and makers. There are weekly assignments for blog postings. Active participation in both the reading discussions and blog is required to receive credit for this class.

## **Assignment Requirements:**

### **Material Report**

(Material resources: Material Connexion database, transmaterial, fashion resource center, etc.)

- \* Name of Material
- \* Name & Contact Info of Manufacturer
- \* Electrical & Physical Characteristics
- \* Intended + Imagined Uses
- \* Acquire sample material if possible from manufacturer

### **Technique Report**

Documentation of a technique researched during the semester

### **Project Proposal Presentations**

You will have about 10 minutes to present your concept. Be clear and concise. Include imagery, sketches, background research, inspiration and possible solutions (technology, materials, techniques). Include a few minutes for Q&A.

### **Project Presentations + Critique (final)**

You will have 15 minutes total for your presentation - 10 minutes to present your work, 5 minutes for Q&A. Please come early to set up your projects and load presentations onto class computer.

- \* Name/Title
- \* Idea
- \* Background Research
- \* Circuit Diagram
- \* The Interaction / Intended Scenario
- \* Techniques
- \* Materials
- \* Why is it soft? Why did you build it the way you did?
- \* Challenges + Successes
- \* Possible Future Developments

Please be sure to post your final presentation in PDF form and send me the link.

## **SAIC POLICIES**

### **Attendance:**

Students are expected to attend all classes regularly and on time. Any necessary absences should be explained to the instructor. Students who are ill should contact their faculty member or leave a message for the instructor in the department office the day they are absent. For an extended absence due to illness, contact Health Services. Notification is then sent to all instructors informing them of the student's absence. For other extenuating circumstances contact the Academic Advising office. Please note that the written notification does not excuse a student from classes. The instructor gives students officially enrolled in a course credit only if they have responded adequately to the standards and requirements set. If the instructor does not clarify their requirements and absence policy in the course syllabus, students should ask the instructor. Also note that if a student registers late for a class (during add/drop) the instructor counts the missed classes as absences and the student is responsible for assignments given during those missed days.

### **Accommodations for Students with Disabilities:**

If you have a disability and may need an accommodation, please contact

SAIC's Disability and Learning Resource Center (DLRC) by calling 312-499-4278, or by e-mailing [dlrc@saic.edu](mailto:dlrc@saic.edu). You should contact DLRC as early in the semester as possible. Staff at the DLRC will review your disability documentation and work with you to determine appropriate accommodations. They will then provide you with a letter outlining approved accommodations, which must be presented to me before any accommodations will be implemented.

### **Statement on Plagiarism:**

The School of the Art Institute of Chicago prohibits academic misconduct, which includes "both plagiarism and cheating, and may consist of the submission of the work of another as one's own; unauthorized assistance on a test or assignment; submission of the same work for more than one class without the knowledge and consent of all instructors; or the failure to properly cite texts or ideas from other sources" (Students' Rights and Responsibilities, Student Handbook, [http://www.saic.edu/pdf/life/pdf\\_files/rights.pdf](http://www.saic.edu/pdf/life/pdf_files/rights.pdf)).

Plagiarism is a form of intellectual theft. One can plagiarize even if one does not intend to. The penalty for plagiarizing may range from failure on the specific plagiarized assignment to failure in the class. Repeat offenses can lead to disciplinary action, which could include suspension or expulsion from the School. The Faculty Senate Student Life Subcommittee has prepared a 28-page handbook entitled Plagiarism: How to Recognize It and Avoid It. The document is available online on at [http://www.saic.edu/webspaces/portal/library/plagiarism\\_packet.pdf](http://www.saic.edu/webspaces/portal/library/plagiarism_packet.pdf).