

# Digital Arts: Art and Engineering Studio

AKA CyberArts Studio (Fall '07)

## INTRODUCTION

This class is a multidisciplinary class drawing students from computer science, art and art history, architecture, music, communications, and related disciplines. This course teaches interdisciplinary collaboration in creative uses of technology. Students carry out a series of small technology-based sketch problems in arbitrarily assigned teams before self-organizing into cross-disciplinary teams to create a large work of art. The focus is on using inherently different aesthetics and values in situations where different methods of problem solving are called for. The course meets in the new CyberArt Studio on South Main Street and has access to various resources such as computers, projectors, and sensors.

Faculty from CCTAD will guest lecture on specific topics such as the history of digital music to suggest the breadth of options students should consider.

Students may choose to continue on to a Spring semester follow-on which will focus on projects for the Art Museum of Western Virginia, due to open in the Fall of 2008. Some or all of the student teams will work closely with members of the Digital Art Research Collaborative<sup>1</sup> to create works of visual and acoustic art appropriate for the venue.

## COURSE DESCRIPTION

This is a project-based class. It is an intensive immersion in different approaches to digital art. It is a studio class in that students work in teams to develop the term project. We emphasize the cycle of ideation/presentation/critique. Reviews look at not only the inventiveness of problem finding and problem solving, but the quality of expression found in the concept, form, and behavior of created artifacts. Students are encouraged to find their own interpretation of the project theme.

Projects involve creating and integrating hardware and software. Although working in teams, students will be expected to participate in all aspects of projects. Sensors, displays, and/or effectors will be integrated in a physical embodiment that reflects the intended setting, use and content.

We draw on expertise and practices in art, communications, music, and computer science. In parallel with the project, there will be readings, discussions, a

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<sup>1</sup> DARC consists of:

- ❑ Art and Art History: Betsy Bannan, Carol Burch-Brown, Simone Paterson, Joy Rosenthal, Eric Standley, Dane Webster
- ❑ Music: Ivca "Ico" Bukvic
- ❑ Computer Science: Steve Harrison

few lectures, and two sketch problems to frame and reflect upon the nature of technology-based art. Students are expected to keep up with assigned reading and contribute actively to our discussions.

Because of its cross-disciplinary focus, students coming from different backgrounds will acquire different skills and knowledge. Of course, all should gain an insight into the differences in values, legitimate forms of rhetoric, aesthetics, and problem-solving approaches of art, science, design and engineering. Some specific examples are:

- ❑ Engineering students: holistic problem-solving (as contrasted with hierarchically decomposed problem-solving), public project presentation, a recognition of the aesthetics of engineering
- ❑ Art students: engineering project processes, hierarchically-decomposed problem-solving, systems thinking
- ❑ Design students: art processes, critical stance
- ❑ Music students: engineering project processes, systems thinking
- ❑ Communication students: hierarchically-decomposed problem-solving, systems thinking
- ❑ Science students: “satisficing”, design review, a sense of aesthetics

## **EVALUATION**

Structurally, the class is part seminar, part lecture, and mostly hands-on project development. Students will be primarily graded on their team’s project, their participation in its conceptualization, background research, aesthetic and technical exploration, and its implementation/performance, and a written reflection at the end of the semester. Participation will be assessed in team meetings with their faculty advisors, presentations made to the class, the written report, and the work of art produced. Secondly, students will be graded on their general participation in class discussions, contributions to the collective knowledge of the class, and participation in putting on the art show.

## **PREREQUISITE**

At least junior standing with most core classes completed. Admission is contingent upon review of a portfolio of work and/or an interview by faculty to gauge appropriate fit with class, level of enthusiasm, self-direction, and ability to devote sufficient time – particularly with regard to the DARC/AMWV project.

## **SYLLABUS**

The course focuses on issues of the arts, technology and culture by creating a thoughtful work of technology-based art.

### **Topics:**

The topics loosely break down into four main categories: process, skills, the history of technology and the arts, and meaning.

### **Process:**

The problem finding / problem solving dynamic  
The role of representations in the artistic process  
Multi-disciplinary teams  
Ideation/presentation/critique cycle

The art of review

Holistic realization (creating the environment, the object and the interface together)

Skills:

representational skills (sketching, storyboarding, model making, animation, 3d-sketching and prototyping)

digital visual tools: Maya, PhotoShop, and Flash

digital music tools: MIDI, Max

project planning

team building

Technology and the Arts:

EAT, Kluver and early technology-based art

Cross-cultural applications of technology

Readymades and handmades

Time-based art

Meaning:

Genres and meaning creation

Media and meaning

Irony

The tension between fine art and commercial art, insider and outsider art

Provocation and spectacle

## TEXTBOOKS

The primary text is Steve Wilson's *Information Arts* (MIT Press, 1995 ISBN: 0-262-73158-4) which is available on-line from the library. There will be assigned reading, but the book itself is more a reference than a read.

## FACULTY

The following faculty from the CCTAD contributing departments teach, coach, advise the class:

FACULTY	Department	e-Mail
Simone Paterson	Art and Art History	simpat@vt.edu
Dane Webster	Art and Art History	webster@vt.edu
Steve Harrison	Computer Science	sHarrison@vt.edu
Ivca "Ico" Bukvic	Music	ico@vt.edu
James Miley	Music	jmiley@vt.edu
Yong Cao	Computer Science	yongcao@vt.edu
Paul Harrill	Communications	pharrill@vt.edu