# Art & Code & Interactivity                          Fall 2015

ARTS 4090-01, ARTS 6090-01
Tuesday, Friday 10:00am- 11:50pm
West Hall, 211

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" 2. Rational judgments repeat rational judgments.
  3. Irrational judgments lead to new experience. "
– Sol Lewitt. Sentences on Conceptual Art, 1969.

## Abstract:

Art && Code && Interactivity is primarily concerned with: learning how to build any interactive experience artwork from concept to completion and stretching the definition of art and the definition of code.

## Learning Outcomes:

By completion of the course…
- Students will be able to create interactive experiences with OpenFrameworks
- Students will be able to break down a conceptual idea into manageable technical parts
- Students will be able to solve a project's unknown, unknowns

Graduate Students will additionally…
- Students will give a tutorial/presentation on a related OpenFrameworks addon or other open source software tool, history of open source software, etc

## Supplies:

Required:
- Course website: https://github.com/ACI-F15-ORG
- Programming Interactivity. 2ND Edition. Joshua Noble.

Suggested:
- Getting Started with Arduino. Massimo Banzi.
- C++ Language Tutorial. Juan Soulié. http://www.cplusplus.com/doc/tutorial
- http://www.cprogramming.com/tutorial/
- http://pkmital.com/home/teaching/va-workshop-audiovisual-processing-for-ios/
- http://www.openframeworks.cc/tutorials/
- http://gitref.org/

- http://try.github.com/levels/1/challenges/1

On-line through RPI Library:

- <u>Programming Interactivity</u>. 2<sup>ND</sup> Edition. Joshua Noble.

## **Important Points:**

Excuses:

Excuses are only acceptable in the following four scenarios: death of family member, a note from doctor or documentation of hospitalization, viable religious observance, and presentation or exhibition of academic work or research at a conference, symposium, gallery, museum, etc. Singular sick days are excusable without documentation within a reasonable limit – for example: two. Illness spanning two or more consecutive class days is not excusable without documentation. Excuses must be declared and accepted before class time by phone, email, or in person.

Studio Format/ Work Load:

This course does not require everyday attention, although it is a studio course and will require six to ten hours of work outside of class each week on average.

E-mail:

E-mail is the most effective communication with me outside of class. I will use your RPI account to communicate with you.

Distractive Computing:

No computing, exceptions are: following in class demos and work in class. Refusal to turn off monitors, close laptops, etc will result in receiving an absence for that day.

## **Grading:**

Assignments:

- Assignments are due at the beginning of class.
- Twenty-five percent of an assignment's total points will be deducted per day late. Days are calculated by the time an assignment is due.
- You will be required to speak and present your work. You will also be required to speak about your colleagues' work. Part of each assignment grade will be based on your participation during critique.
- Voluntary extra assignments for an increase in a final grade will not be accepted.
- Redoing an assignment for a potentially higher score is acceptable only if the assignment was originally turned in on time and if the re-completed assignment is submitted within four days of the assignment's original deadline. The final assignment of the semester will not be available for redoing.

Attendance:

- Attendance is mandatory and taken at the beginning of class.
- Only disputes brought to the instructor's attention within one week of the infraction will be considered and discussed.
- Each three absences equal reduction final grade by one letter.
- Attendance to Final Critique during exam week is mandatory. Failure to appear will result in the reduction of final grade by one letter.

Overall:
- All appeals must be brought to the instructor during office hours or at a scheduled time convenient to both parties. Keep in mind that an appeal has the potential to raise or lower your grade.
- Midterm grades will be sent individually to your RPI email account. However, you may request grades at any time.

| Grade | Total Points | Expectations |
|-------|-------------|-------------|
| A | 100 – 93 | Excellent: consistent effort, timely |
| A - | 92.99 – 90 | |
| B + | 89.99 – 87 | |
| B | 86.99 – 83 | Good: effort, timely |
| B - | 82.99 – 80 | |
| C + | 79.99 – 77 | |
| C | 76.99 – 73 | Satisfactory: some effort, timely |
| C - | 72.99 – 70 | |
| D + | 69.99 – 67 | |
| D | 66.99 – 60 | Passable: little effort |
| F | 59.99 – 0 | Failure |

## Academic Integrity

Trust:

Student-teacher relationships are built on trust. Students must trust that teachers have made appropriate decisions about the structure and content of the courses they teach, and teachers must trust that assignments that students turn in are their own. Acts which violate this trust undermine the educational process. The Rensselaer Handbook of Student Rights and Responsibilities defines various forms of Academic Dishonesty and you should make yourself familiar with these.

Plagiarism:

All work produced in this course must be original and created by the student. First infraction will result in a failure for the course and a report to the Office of the Dean.

Collaboration:

Collaborative work and discussion is encouraged. Instructor must be notified of students' intention to collaborate on assignments well ahead of that assignment's deadline. Instructor will determine whether or not collaboration will be allowed. Upon assignment completion, there must be documentation of each member's contribution to the finished assignment. The instructor reserves the right to award members of the collaboration different grades.

## Project Assignment Schedule:

Projects are due on the date that matches the end of their time block. For example, the first assignment "GIT && OF && Vimeo" is due Sept 8th. Readings are supplied for students' use in relation to project assignments. Discussion about readings will not occur unless otherwise notified during the class time in which they are assigned.

| Day | In Class | undergrad | graduate | graduate | FYI | EMPAC |
|---|---|---|---|---|---|---|
| 1-Sep | Intro, Inspiration, setup | GIT && OF && Vimeo | GIT, OF, Vimeo | Tutorial | | Book launch, on S/S 1 |
| 4-Sep | GIT, problem solving | | | 10% | | |
| 8-Sep | drawing | 10% | 10% | | | |
| 11-Sep | drawing & animating | Interactive Graphics && Sound | Graphics && Sound | | medalist | |
| 15-Sep | animating | | | | | dotQuantum |
| 18-Sep | sound | | | | | |
| 22-Sep | Arduino | | | | | within 2 |
| 25-Sep | Arduino <-> OF | | | | | |
| 29-Sep | Work In Class | | | | | vhl + daedelus + Ikonika |
| 2-Oct | Work In Class | | | | homec | mark fell |
| 6-Oct | IGS Crit | 25% | 20% | | | Recursive frame analysis |
| 9-Oct | OpenCV, track | Kinect \|\| Camera | Kinect \|\| Camera | | | |
| 13-Oct | Mon -> Tue - No Class | | | | | france jobin |
| 16-Oct | Kinect | | | | | oneohtrix point never |
| 20-Oct | slit - scanning | | | | | rob hamilton |
| 23-Oct | Work In Class | | | | fam wkd | |
| 27-Oct | Work In Class | | | | | |
| 30-Oct | KC Crit | 25% | 20% | | | |
| 3-Nov | Code, code, coding | Code && Poetry | Code && Poetry | | | |
| 6-Nov | Lang Options | | | | | |
| 10-Nov | Work In Class | | | | | |
| 13-Nov | CP Crit | 15% | 15% | | | Tim Hecker |
| 17-Nov | Audio Env | Live Coding | Live Coding | | | |
| 20-Nov | Audio Visual Env | | | | | |
| 24-Nov | Visual Env | | | | | |
| 27-Nov | Thanksgiving - No Class | | | | | |
| 1-Dec | Work In Class | | | | | |
| 4-Dec | Work In Class | | | | | |
| 8-Dec | Performance | | | | | |
| 11-Dec | Performance | 25% | 25% | | | Holly Herndon |

Changes to syllabus may be made at instructor's best discretion with notification to the student