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## ***COJO 298: Creative Coding Practices & Techniques***

Summer Semester 2018

Tuesdays / Thursdays

1:00 PM – 5:00 PM

### ***Location***

OEC LL13

### **Office Hours**

Tuesdays / Thursdays

10:00 AM – 12:00 PM

By appointment or online (Skype, email, chat)

### **Course Description**

This course examines the application of new and emerging technologies in creative and interactive media production and development. Modern audiovisual, music, and interactive projects benefit from the use of creative coding, visual programming environments, microcontrollers, sensors, data visualization, data sonification, automated fabrication, and open source platforms. As technology advances, these tools have become more common, less expensive, and easier to use. Students will put several of these new technologies into practice through a number of assignments including a final project performed or exhibited at the end of the class. A keen sense of curiosity is suggested, but no previous electronics or coding background is required.

### **Course Objectives**

- Examine the use of creative coding and creative media technology as it applies to software applications, electronics, visual art, and sound.
- Use creative coding languages to build interactive audiovisual applications.
- Use microcontrollers to digitize sensor values for use in an interactive project.
- Apply physical computing techniques to respond to incoming sensor values.
- Attend performances and exhibitions that use technology in creative ways.
- Produced a final interactive project that will be exhibited or performed at the end of the term.

### **Course Materials**

#### ***Recommended Texts***

- Banzi, M. & Shiloh, M. (2015) *Getting Started with Arduino*. 3rd Edition. Make: Projects.

- Various online articles and PDFs to be distributed by the instructor.

### ***Required Technology***

- A Mac or Windows laptop with administrative access is required.
- Install a robust text editor that includes syntax highlighting and auto-complete (Sublime Text 3 suggested).
- The Open Source integrated development environment (IDE) for Processing.org, the Arduino IDE, and other software including a trial version of Max from Cycling '74 will be used during the semester.
- Expect to spend a minimum of \$50 on materials, such as electronic sensors and microcontrollers, for the class. Pen or pencil and a paper notebook are also critical tools (ancient tech, yet still magical).

### **Course Website**

The primary site for the class is located at <http://ust.johnkeston.com/category/TBD>.

### **Attendance**

An effective classroom experience depends on everyone involved: faculty and students alike. Therefore, attending class is required in all Communication and Journalism courses. In this class student grades will be reduced by ½ a grade point once more than three absences occur (A to A-). Another ½ grade point reduction will be applied for each additional absence. Any absences will also cause participation points (10% of the total points) to be reduced potentially lowering the final grade.

### **General Expectations**

#### ***Deadlines***

Deadlines for class projects must be met to receive the points earned. Late work will only be accepted as a result of documented medical emergencies experienced by the student or an immediate family member.

#### ***Respectful behavior***

The best learning takes place in an atmosphere of respect. Therefore, students should arrive to class on time and turn off cell phones and other devices that may distract others. In addition, students should pay full attention to whomever is speaking and refrain from interrupting others during a conversation. Finally, debate is encouraged, but it should be done in a courteous manner.

#### ***Academic Integrity***

Cheating and plagiarizing have no educational value. Our department expects all students to do their own work and give proper credit – using an accepted citation style – where credit is due.

### ***Writing***

Good writing is an essential skill in all communication fields. All written work will be graded with an emphasis not only on content but also on mechanical accuracy.

### **Students with Disabilities**

Academic accommodations will be provided for qualified students with documented disabilities including but not limited to mental health diagnoses, learning disabilities, Attention Deficit Disorder, chronic medical conditions, visual, mobility, and hearing disabilities. Students are invited to contact the Disability Resources office about accommodations early in the semester. Appointments can be made by calling 651-962-6315 or in person in Murray Herrick, room 110. For further information, you can locate the Disability Resources office on the web at <http://www.stthomas.edu/enhancementprog/>.

### **Grading**

93-100 points:	A
90-92 points:	A-
88-89 points:	B+
83-87 points:	B
80-82 points:	B-
78-79 points:	C+
73-77 points:	C
70-72 points:	C-
68-69 points:	D+
63-67 points:	D
62 points & less:	F

### ***Definitions***

All professors in our department view an “A” grade as work that is truly exceptional. A “B” signifies very good, above-average work; and a “C” signifies competence with an appropriate grasp of the subject matter. A “D” is a passing grade despite deficiencies, and an “F” signifies failure.

### **Projects, Points,**

#### **Due Dates**

*Total Points 100*

*CV = See Canvas for your specific due date*

<b><i>Title</i></b>	<b><i>Points</i></b>	<b><i>Due</i></b>
1. Participation	10	NA
2. Technical Exercises (15 total)		TBD
- JavaScript Exercises	5	
- Processing Exercises	5	
- Arduino Exercises	5	
3. Introductory Processing.org Project	10	

4. Introductory Arduino Project	10
5. Introductory Max Project	10
6. Final Project	35
7. Final Exhibition / Performance	10

**Assignments**

See <http://ust.johnkeston.com> for assignments details

**Course Schedule**

See <http://ust.johnkeston.com> for day-to-day scheduling

***Important Dates***

Northern Spark Field Trip, June 15, 9:00pm to 2:00am

***Weekly Summary***

<http://ust.johnkeston.com/category/cojo298/>