**School of Communication**

**University of Miami**

CIM 540-640-2R

Intro to Creative Coding

Tu 2:00 – 4:30PM

Francis L. Wolfson Building Room 1018

Spring Semester 2019

Class Site: <https://github.com/zevenrodriguez/CIM540-640>

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**SYLLABUS**

**COURSE DESCRIPTION AND PURPOSE:**

This course will introduce students to the building blocks of creative coding within the visual and media environment. Students will learn to create dynamic images, type and interfaces, that can translate into web, mobile and print forms. Through sets of problems, students will learn programming fundamentals that translate in virtually all programming platforms.

**MATERIALS FEES**: None

**COURSE PREREQUISITES:** None

**ASSIGNMENTS/COURSEWORK**:

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| --- | --- |
| **All assignments should have a project folder in your repository with a readme, including any links to code, descriptions, and visuals associated to the assignment. ALL ASSIGNMENTS ARE DUE BEFORE THE NEXT CLASS.**  **Practice**  *Consist of assignments that will serve as building blocks to major projects.* | **45%** |
| **Midterm Project**  *Design and develop a web application that uses inputs to control a HTML5 canvas* | **20%** |
|  |  |
| **Final Project**  *An awesome interactive sketch that demonstrates your new found technical abilities as well as your attention to aesthetics.*  **Class Participation** | **30%**  **5%** |

**TEXTS AND RESOURCES RECOMMENDED:**

Lauren McCarthy, Casey Reas, Ben Fry. *Getting Started with p5.js: Making Interactive Graphics in JavaScript and Processing*

Reas, Casey and Ben Fry. *Getting Started with Processing*.

**Online Resources:**

<http://www.p5js.org>

<http://p5js.org/gallery/>

**RECOMMENDED READING (not related to p5js):**

Rushkoff, Doug. *Program or be programmed: Ten commands for a digital age*.

Shiffman, Daniel. *The Nature of Code: Simulating National Systems with Code.*

Noble, Joshua. *Programming Interactivity: A Designer’s Guide to Processing, Arduino, and OpenFrameworks.*

**GRADING/EVALUATION:**

This is a skills based course and as such in class assignments are either complete or not. The professor determines whether the submitted assignment meets the appropriate criteria to be deemed completed. Midterm and final projects are graded on their functionality, aesthetics, creativity, and effort.

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| --- | --- | --- | --- |
| Grade | Playability | Process | Creativity |
| A | Users can experience a cohesive and smooth interaction. Throughout the experience, instruction is clear and concise. | Students documents in detail project’s inspiration, creation, user and code flow, and areas of potential growth | Project has gone through multiple iterations and provides something novel, original, and/or engaging to the users. Visually the project shows a high level of refinement |
| B | Project’s instruction is clear, but experience can be buggy or lacks some cohesion. Student has shown growth throughout the process | Student completes all points of documentation, but areas lack sufficient detail | The project has some growth through iterations.  Visually, the project needs more focus on design and details |
| C | Project’s instruction needs work and experience has many issues | Documentation is missing details or key areas | Project did not go through enough iteration and its presentation and usability is too basic |
| D or Below | Project has problems including poor instruction and poor user experience | Student did not sufficiently explain the purpose nor how the project works | The project did not go through various iterations. Little work was done to make it visually appealing. |

|  |  |  |  |
| --- | --- | --- | --- |
| *Grade* | *Points Required* | *Grade* | *Points Required* |
| A | 95 | C+ | 77 |
| A- | 90 | C | 74 |
| B+ | 87 | C- | 70 |
| B | 84 | D | 60 |
| B- | 80 | F | 0 |

**ATTENDANCE POLICY:**

Learning to program is like learning a new language; it builds on concepts. Missing a class might hinder your ability to understand concepts presented on another day. If you know that you will be missing class, please make arrangements ahead of time. Missing more than 2 classes will result in a failing grade.

**RELIGIOUS HOLY DAY POLICY:**

It is the student’s obligation to provide faculty members with notice of the dates they will be absent for religious holy days, preferably before the beginning of classes but no later than the end of the first three (3) class days. Absences due to observance of religious holy days not pre-arranged within the first three class days may be considered unexcused and there is no obligation to allow any make up work, including examinations. Missing a class due to travel plans associated with a particular religious holy day does not constitute an excused absence. The University’s complete Religious Holy Day Policy can be found in the current UM Bulletin.

### HONOR CODE AND PLAGIARISM STATEMENTS:

Students enrolled in this course are expected to abide by the University of Miami Honor Code. The purpose of the Honor Code is to protect the academic integrity of the University by encouraging consistent ethical behavior in assigned coursework. Academic dishonesty of any kind, for whatever reason, will not be tolerated.

No honest student wants to be guilty of the intellectual crime of plagiarism, even unintentionally. Therefore, we provide you with these guidelines so that you don't accidentally fall into the plagiarism trap.

Plagiarism is the taking of someone else's words, work, or ideas, and passing them off as a product of your own efforts. Plagiarism may occur when a person fails to place quotation marks around someone else's exact words, directly rephrasing or paraphrasing someone else's words while still following the general form of the original, and/or failing to issue the proper citation to one's source material.

In student papers, plagiarism is often due to...

* turning in someone else's paper as one's own
* using another person's data or ideas without acknowledgment
* failing to cite a written source (printed or internet) of information that you used to collect data or ideas
* copying an author's exact words and putting them in the paper without quotation marks
* rephrasing an author's words and failing to cite the source
* copying, rephrasing, or quoting an author's exact words and citing a source other than where the material was obtained. (For example, using a secondary source which cites the original material, but citing only the primary material. This misrepresents the nature of the scholarship involved in creating the paper. If you have not read an original publication, do not cite it in your references as if you have!)
* using wording that is very similar to that of the original source, but passing it off as one's own.

The last item is probably the most common problem in student writing. It is still plagiarism if the student uses an author's key phrases or sentences in a way that implies they are his/her own, even if s/he cites the source.

**COURSE TOPICS OUTLINE**

Depending on the speed of the class, some topics might be delayed or sped up. In the case of delays, time will be devoted to workshops on trouble areas.

**Week 1 - Introduction to Creative Coding and Getting Started p5js (Jan 15th)**

**Week 2 – Github and Basic Drawing (Jan 22nd)**

**Week 3 - Adding Interaction: Mouse Position, Keyboard input, and Conditionals (Jan 29th)**

**Week 4 - Images, Buttons, and Conditionals Continued (Feb 5th)**

**Week 5 - Arrays and Loops (Feb 12th)**

**Week 6 - Animation and Push/Pop (Feb 19th)**

**Week 7 - Midterm Project Workday (Feb 26th)**

**Week 8 - Midterm Project Presentation (Mar 5th)**

**Week 9 – Spring Break (Mar 12th)**

**Week 10 - Functions and Objects (Mar 19th)**

**Week 11 – Working with Data and Libraries (Mar 26th)**

**Week 12 – Final Project Ideation workshop (Apr 2nd)**

**Week 13 – Final Project Ideation workshop (Apr 9th)**

**Week 14 – Final Project idea presentation (Apr 16th)**

**Week 15 – Final Project Critique (Apr 23rd)**

**STUDENT ACKNOWLEDGEMENT:**

I HAVE RECEIVED AND READ THE SYLLABUS FOR CIM540-640, SECTION 2R. I HAVE COMPLETED THE PREREQUISITE COURSES LISTED IN THE SYLLABUS OR HAVE HAD THE PROFESSOR SIGN BELOW TO CERTIFY A WAIVER OF THE PREREQUISITES.

SIGNED: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PRINT NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

PROFESSOR PREREQUISITE WAIVER (IF NEEDED)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_