Creative Coding 2
MART 220 Syllabus Spring 2021

MART 220
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Please feel free to set up an appointment using my calendaring program.

https://calendly.com/michael-cassens/220-meeting

URL: http://umonline.umt.edu/

Overview:

This class is designed to build upon what you learned in Creative Coding 1 and give you a new perspective on writing code along with interactive pieces. This course focuses on reinforcing programming concepts using Processing, Arduino and 3D Printing, Game Development and Augment Reality. There will be hands-on opportunities so that you can become proficient in using these tools.

- General Computing Concepts
- Logical Reasoning and Critical Thinking
- Multiple programming paradigms

Upon completing this course, a student will be able to:

- Understand programming concepts and build visually interactive programs using Processing
- Interact with online Arduino boards
- Interact and build 3D models and art pieces
- Use existing game engines to build a simple game
- Work with Augment Reality tools

Attendance:

Attendance is not mandatory however it is your responsibility to make up the work. Although the class is fully online, however, **I am asking for weekly check-in sessions from each student via email, text, Zoom, etc.**

Grading:

Homework 60%
Final Project/Portfolio 40%
Final Portfolios Turn In Friday April 30th, 2021 11:59 PM

All Assignments will be submitted through Moodle assignments. If you have trouble with your submission, please send them to

michael.cassens@mso.umt.edu

Your subject must be MART 220 Assignment # (e.g MART 220 Assignment 1)

If you have multiple files, please zip all your files and label your file: "MART220LastNameAssignment1.zip"

Grading Scale

100-93	**A**
93-90	**A-**
89-87	**B+**
86-84	**B**
83-80	**B-**
79-77	**C+**
76-74	**C**
73-70	**C-**
69-67	**D+**
66-64	**D**
63-60	**D-**
59-below	**F**

P/NP – pass/no pass, 70 or greater is passing determined by Media Arts Department policy, which is a C or better.

Late Assignments:
- Late assignments will not be accepted. Sorry for the inconvenience.

Requirements
- Required Texts**:**
  - **Getting Started with p5js – PDF online**

- Suggested pre-requisites for this course: **Creative Coding 1 or some programming experience**
- Software:
  - **Visual Studio Code or Atom (your choice), Processing IDE, Arduino IDE, Mesh Mixer**

Suggestions:
- It would be beneficial to ask as many questions as you can.
- Feel free to set up an appointment if you need help. I am here to help you understand and do well.

Collaboration:

- I encourage you all to work together through problems – make sure you comment who you worked with at the top of the page, but copying and plagiarism will not be tolerated. If you are caught cheating, I will give you an F for the course.
- Please refer to the Student Conduct Code in how this will be dealt with: http://life.umt.edu/VPSA/student_conduct.php

Incompletes:

"Incomplete for the course is not an option to be exercised at the discretion of students. In all cases it is given at the discretion of the instructor…." Some guidelines for receiving an incomplete are listed in the catalog which include having **a passing grade up to three weeks before the end of the semester** and being in attendance. "**Negligence and indifference are not acceptable reasons**." Also note that there may be financial aid implications.

Late Drops:

The University's policy on drops after **45** days of instruction is very specific. The School of Visual and Media Arts follows this policy rigorously. There are five circumstances under which a late drop might be approved: registration errors, accident or illness, family emergency, change in work schedule, no assessment of performance in class after this deadline. Except in very unusual circumstances, I will only approve late drops if there is documented justification for one of these circumstances.

Disabilities:

This course is accessible to and usable by otherwise qualified students with disabilities. To request reasonable program modifications, please consult with the instructor. Disability Services for Students will assist the instructor and student in the modification process. For more information, visit the Disability Services website at http://life.umt.edu/dss/.

Class Etiquette:

- Be respectful of your fellow classmates.
- Call me anytime if you have a question.
- Profanity and Obscenity will not be tolerated in class or assignments.

Special Dates:

- Jan 18th, 2021 – Martin Luther King Jr. Day – No class
- Feb 15th, 2021 – President's Day – No Class
- March 4th, 2021 – Study Break – No class
- March 16th, 2021 – Study Break – No class
- April 2nd, 2021 – Study Break – No class
- April 23rd, 2021 – Last Day of Class
- **Final Project Turn In: April 30th, 2021 11:59 pm**

Tentative Schedule:

Week 1 Syllabus Review and Overview of the course and review GitHub repository, get programming environment set up and create your first program, Drawing and Basic Shapes
Week 2 Variables – creating, using, processing, Response – event handling
Week 3 Media – images, shapes, fonts, Motion – speed, direction, timers
Week 4 Functions – making functions, return values, Objects – classes and objects
Week 5 Arrays – repetition and array of objects
Week 6 Making a p5.js game
Week 7 Continuing with your p5.js game
Week 8 Online Arduino - introduction and projects
Week 9 Online Arduino - sound
Week 10 Online Arduino - light
Week 11 Game Programming
Week 12 3D Designs
Week 13 Videos and p5.js integration
Week 14 Augmented Reality Tools
Week 15 Work on Projects
Week 16 Final Project Turn In– **Friday April 30^{h}, 2021 11:59 pm**