

Creative Coding 2

MART 220 Syllabus Spring 2023

MART 220

Instructor: Michael Cassens

Office: McGill 230

Office Hours: By appt

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

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

Class Zoom link: <https://umontana.zoom.us/j/91886947516?pwd=MVVuQnlWU2J4U0FpRmNNdGI0Y0dRUT09>

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

Overview:

This class is designed to build upon what was learned in Creative Coding 1 and give additional perspectives on writing code along with interactive pieces. This course focuses on reinforcing programmatic concepts in p5.js, Arduino and 3D Printing, Game Development and Augment Reality. There will be hands-on opportunities so that one becomes proficient in using these tools. The course culminates in a semester long project in which students present their work to each other and invite feedback from the class.

- General Computing Concepts
- Integrate and synthesize logical reasoning and critical thinking
- Work with multiple programming paradigms
- Work with the Internet of Things
- Interface between hardware and software
- Determine which programmatic tools best fit the problems at hand
- Work collaboratively during and outside of class to create art and solicit feedback from peers

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

- Understand programming concepts and build visually interactive programs using p5.js, play libraries
- 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
- Effectively express their art through personal presentation and an artist statement

- Take feedback and incorporate that into their projects
- Critically think about what tools are required for the task at hand
- Collaborate with others to solve real-world problems

Attendance:

Attendance is not mandatory however it is your responsibility to make up the work. The class is hybrid, which means it will be in person, but if you need to be online that is okay. 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 May 12th, 2023 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: <https://www.umd.edu/student-affairs/community-standards/student-code-of-conduct-2021-pdf>

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.

Land Acknowledgement:

The University of Montana acknowledges that we are in the aboriginal territories of the Salish and Kalispel people. Today, we honor the path they have always shown us in caring for this place for the generations to come.

Inclusion Policies:

The University of Montana values leadership, engagement, diversity, and sustainability, because our institution is committed to respect, welcome, encourage, and celebrate the differences among us. As members of the University of Montana community, we aspire to:

- Respect the dignity and rights of all persons.
- Practice honesty, trustworthiness, and academic integrity.
- Promote justice, learning, individual success, and service.
- Act as good stewards of institutional resources.
- Respect the natural environment.

The College of the Arts and Media at the University of Montana, has chosen to actively pursue equity and access for all persons. In this charge we will be researching, planning, and implementing ways in which our culture can be more accessible, inclusive, equitable, sustainable. It is not enough to be anti-bias in principle without being equitable in action. We will implement these actions organized by a group of students, faculty, and staff across the entire College in an ongoing way.

Student Support Resources

Academic Misconduct and the Student Conduct Code

"This Code of Conduct embodies and promotes honesty, integrity, accountability, and duties associated with citizenship as a student in our community at the University of Montana. This Code exists to protect the interests of the community and dignity of its members, and to challenge those behaviors which are not in accordance with our policies". The Code is available for review online at <https://www.umt.edu/student-affairs/community-standards/student-code-of-conduct-2021-pdf>

Accommodations

"Students with disabilities may request reasonable modifications by contacting the Office of Disability Equity (ODE) office. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Office of Disability Equity (ODE). For more information, please consult <http://www.umt.edu/disability>. "

The Writing and Public Speaking Center provides one-on-one tutoring to students at all levels and at any time in the writing process. Visit now. Visit often. We're ready when you are. www.umt.edu/writingcenter.

Mental Health and Wellbeing Policy: The University of Montana is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, visit <https://www.umt.edu/diversity/resources/mental-health.php>

If you would like to visit with our Wellness Coordinator, I would encourage you to either fill out this form: https://umt.co1.qualtrics.com/jfe/form/SV_cTq1BO0XyqpXTAG

Or contact her directly at: <https://calendly.com/courtney-bowers>

Stay connected:

Please join SVMA social media to stay informed about events and happenings in our school.

- Instagram: https://www.instagram.com/umt_svma/
- Facebook: <https://www.facebook.com/UMTsvma>

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 16th, 2023 – Martin Luther King Jr. Day – No class
- Jan 23rd-25th, 2023 - online class
- Feb 20th, 2023 – President's Day – No Class
- Feb 27th, 2023 - online class
- March 20th-24th, 2023 – Spring Break – No class
- May 5th, 2023 – Last Day of Class
- **Final Project Turn In: May 12th, 2023 11:59 pm**

Tentative Schedule:

Week 1 Syllabus, overview of the course and review GitHub repository, get programming environment set up, remembering how to draw with basic shapes
Week 2 Variables – creating and using, 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 (play library)
Week 7 Continuing with your p5.js game
Week 8 Online Arduino - introduction and projects
Week 9 Online Arduino – sound
Week 10 Spring Break
Week 11 Online Arduino – light
Week 12 Game Programming
Week 13 3D Designs
Week 14 Videos and p5.js integration
Week 15 Augmented Reality Tools
Week 16 Work on Projects
Week 17 Final Project Turn In– **Friday May 12th, 2023 11:59 pm**