

University of Montana

## ScholarWorks at University of Montana

---

University of Montana Course Syllabi

Open Educational Resources (OER)

---

Spring 2-1-2022

### MART 220.01: Creative Coding II

Michael David Cassens

*University of Montana, Missoula*, [michael.cassens@umontana.edu](mailto:michael.cassens@umontana.edu)

Follow this and additional works at: <https://scholarworks.umt.edu/syllabi>

**Let us know how access to this document benefits you.**

---

#### Recommended Citation

Cassens, Michael David, "MART 220.01: Creative Coding II" (2022). *University of Montana Course Syllabi*. 12543.

<https://scholarworks.umt.edu/syllabi/12543>

This Syllabus is brought to you for free and open access by the Open Educational Resources (OER) at ScholarWorks at University of Montana. It has been accepted for inclusion in University of Montana Course Syllabi by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact [scholarworks@mso.umt.edu](mailto:scholarworks@mso.umt.edu).

# Creative Coding 2

## MART 220 Syllabus Spring 2021

### **MART 220**

Instructor: Michael Cassens

Office: McGill 230

Office Hours: By appt

Phone: (415) 787-0577

E-mail: michael.cassens@mso.umt.edu

Skype: michaelcassens

Google+: michaelcassens@gmail.com

You can contact me via TeamViewer or Zoom

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
- Work with Internet of Things
- Interface between hardware and software

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 May 13<sup>th</sup>, 2022 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**

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

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.umt.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.

#### **COVID-19 policy:**

"The University of Montana requires masks for every course being held in a classroom, lab, or studio until otherwise informed. "

- Mask use is required within the classroom or laboratory.
- If you feel sick and/or are exhibiting COVID-19 symptoms, please don't come to class and contact the Curry Health Center at (406) 243-4330.
- If you are required to isolate or quarantine, you will receive support in the class to ensure continued academic progress. (All classes will be held in a hybrid format with everything recorded. There is also a supplemental website)
- UM recommends students get the COVID-19 vaccine. Please direct your questions or concerns about vaccines to Curry Health Center.
- Where social distancing (maintaining consistent 6 feet between individuals) is not possible, specific seating arrangements will be used to support contact tracing efforts.
- Class attendance and seating will be recorded to support contact tracing efforts.
- Drinking liquids and eating food is discouraged within the classroom.

- Please note this class is being recorded. Notifying students is a requirement if this is the case.

### **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 DSS office. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). 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](http://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>

### **Stay connected:**

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

- Instagram: [https://www.instagram.com/umt\\_svma/](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 17<sup>th</sup>, 2022 – Martin Luther King Jr. Day – No class
- Feb 21<sup>st</sup>, 2022 – President's Day – No Class
- March 21<sup>st</sup>-25<sup>th</sup>, 2022 – Spring Break – No class
- May 6<sup>th</sup>, 2022 – Last Day of Class
- **Final Project Turn In: May 13<sup>th</sup>, 2022 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 – Isound

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 13<sup>th</sup>, 2022 11:59 pm**