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Spring 1-2016

### MART 340.50: Principles of Interactive Media

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## **MART 340: Principles of Interactive Media**

Spring 2016

Online Course

Credits: 3

Professor: Justin Lewis

Email: [justin1.lewis@umontana.edu](mailto:justin1.lewis@umontana.edu)

Office: 234 McGill Hall

### **Office Hours:**

Monday 10:00 am – 12:00 pm

Tuesday 11:00 am – 12:00 pm

Wednesday 3:30 pm – 4:30 pm

### **Overview:**

Welcome to Principles of Interactive Media, an exploration of some of the artistic tools used to bridge the gap between the viewer and the creative process. Throughout this course we will be exploring the integrated technologies used to develop generative art, interactive installations, HTML5 interactive web animations, and basic 2D game development. Students will have the opportunity to gain a deeper understanding of how the concepts that govern these interactive technologies are integrated and applicable across numerous development platforms.

### **The Course Website:**

The course website contains the majority of learning materials for this class. Be sure to watch all of the videos and tutorials, explore the provided reading materials, and download the example projects and demonstrations for each weekly assignment.

Course website: [www.principlesofinteractivemedia.com](http://www.principlesofinteractivemedia.com)

### **Course Format:**

MART 340 is a fully online course. For those of you in Missoula, you are welcome and encouraged to work in our Online BA lab. The lab offers computers with the software you will need, and most importantly, provides the opportunity to connect with other students and faculty in our digital arts community. For the distance learner, please note that you are always welcome to set up a Skype chat with your professor.

### **Software Requirements for this course:**

- Processing
- Photoshop
- Illustrator
- HTML5 animation tools such as Adobe Edge Animate and Google Web Designer
- A code editor such as Brackets or Komodo
- Unity Game Engine

### **Moodle:**

This is where your assignments are turned in and where important assignment information lives. All assignments must be uploaded to the course Moodle to receive credit. Please check your Moodle grade book often to monitor your progress.

### **Student Email**

All communication with your instructor must be made through your University of Montana email account. Please do not contact your instructor through a private email account such as Gmail or Yahoo. All assignments must be submitted through Moodle to be accepted for grading. Please note that assignments submitted through email will not be accepted. Please allow up to 24 hours for a response when emailing your instructor, Monday through Friday. The instructor is not required to respond to emails on Saturday or Sunday.

### **Course Outline:**

#### **Unit One: Art with Code**

##### **Week 1: Processing Basics**

Creating a mouse interactive sketch.  
Due date: Tuesday, February 2, 9:00 PM.

##### **Week 2: Interactive art**

Using if/else statements, for loops, saving frames, and rendering videos.  
Due Date: Monday, February 8, 9:00 PM.

##### **Week 3: Image Editing Without Photoshop**

Using libraries, images, blending modes, and color tints.  
Due Date: Monday, February 15, 9:00 PM.

##### **Week 4: Objects**

Creating custom classes.  
Due Date: Monday, February 22, 9:00 PM.

##### **Week 5: Processing Video**

Working with webcams and video.  
Due Date: Monday, February 29, 9:00 PM.

#### **Unit Two: Interactivity for the Web**

##### **Week 6: Interactive Web Animations**

Working with JavaScript, HTML5, and.  
Due Date: Monday, March 7, 9:00 PM.

**Week 7: Interactive Web Animations Tools**

Introducing Google Web Designer and Edge Animate.

Due Date: Monday, March 14, 9:00 PM.

**Week 8: Interactive Web Animations**

Working with symbols and comps (independent timelines), CSS filters, Sprites and Gifs.

Due Date: Monday, March 21, 9:00 PM.

**Week 9: Interactive Web Animations**

Adding web animations to an HTML web page.

Due Date: Monday, March 28, 9:00 PM.

**Unit 3: Unity Game Engine:****Week 10: Introduction to Unity.**

Character Controllers

Due Date: Monday, April 11, 9:00 PM.

**Week 11: Unity 2**

Attaching a camera to a character, adding platforms and destroyers.

Due Date: Monday, April 18, 9:00 PM.

**Week 12: Unity 3**

Using tiled images as backgrounds, working with physics 2D components.

Due Date: Monday, April 25, 9:00 PM.

**Week 13: Unity 4**

Adding collectable objects with audio triggers.

Due Date: Monday, May 2, 9:00 PM.

**Week 14: Level Triggers**

Triggering new levels and game over screens.

Due Date: Monday, May 9, 9:00 PM

**Grading Policy:**

**Points towards your final grade will be earned according to the following:**

- Name each assignment zip file you upload to Moodle like this:  
YourLastName\_YourFirstName\_A2. For example: Brando\_Marlon\_A2. Note that in this case A2 stands for Assignment 2. Failure to name your assignment accordingly will result in loss of points.

- Late work will result in the automatic deduction of 2 points per assignment. Please see assignment point breakdown below to see how many points each assignment is worth. Late work will not be accepted under any circumstances after Friday of finals week.
- Fully functioning and accurate execution of the assignments is mandatory to receive full points.
- 5 points of your final grade are earned for class participation. Note that in an online course, class participation includes exploring all the resources on the class website, including all tutorial videos, reading assignments, and the downloading every example project. See the final assignment in Moodle for more details.

**Late Submission Policy:**

Note that broken computers, lack of Internet access, missing or lost files, and having a busy work schedule are never under any circumstances accepted excuses for late work in an online course. Always back up your work to an external drive so that you can freely move your work from one computer to another when needed. Keep in mind that if you are located in Missoula, you have access to our staffed Online BA computer lab.

Emailing your professor for help right before an assignment is due is not an acceptable excuse for a late assignment. Please allow up to 24 hours for a response, Monday through Friday.

**Please Note: Assignments will not be accepted for grading after Friday of finals week.**

**Assignment Breakdown:**

Assignment 1: 5 points  
Assignment 2: 6 points  
Assignment 3: 7 points  
Assignment 4: 7 points  
Assignment 5: 7 points  
Assignment 6: 7 points  
Assignment 7: 7 points  
Assignment 8: 7 points  
Assignment 9: 7 points  
Assignment 10: 7 points  
Assignment 11: 7 points  
Assignment 12: 7 points  
Assignment 13: 7 points  
Assignment 14: 7 points  
Class Participation/Final Presentation: 5 points

**Grading Percentage Breakdown:**

94 – 100: A

90 – 93: A-

87 – 89: B+

83 – 86: B

80 – 82: B-

77 – 79: C+

73 – 76: C

70 – 72: C-

67 – 69: D+

63 – 66: D

60 – 62: D-

0 – 60: F

**Student Conduct Code:**

[http://www.umd.edu/vpsa/policies/student\\_conduct.php](http://www.umd.edu/vpsa/policies/student_conduct.php)