

## Interactive Digital Media Capstone -- Core

### Course Description

The Interactive Digital Media Capstone course brings together the core courses in Media Design and Production with the concepts of User Interface Design (UID), User Experience Design (UX), and creative coding to develop team based projects. This course emulates the industry production process and synthesizes media and digital storytelling from other production courses into emergent media projects. Capstone Projects are teacher facilitated – student led teams creating a digital media artifact from conception to presentation. Example works might include a 2D or 3D video game; a student-developed social network web application; a movie or animation; interactive informational kiosk for a museum or library; or a concert of student-created digital media performances.

### Course Objectives

- Demonstrate an understanding of integrity and ethics pertaining to the digital media professions.
- Demonstrate effective communication skills, through team work, oral presentations, and good written communication.
- Use the design process to envision, implement, test, and redesign discipline specific projects to gain better appreciation of the process of creating engaging media.
- Demonstrate the intersection of digital media and society by producing and exhibiting an emergent media artifact that becomes part of the student’s Digital Media Portfolio.

### Assessing Performance

Students are assessed by obtaining weekly grades on the following: Work Ethic, Quizzes, Project Reports, Presentations, and Reflections as well as the final outcome and presentation of the design project.

### Course Essentials

Equipment	Cost/Unit
Consumable material	\$1,000
Reusable material	\$1,500
Classroom set of computers	\$0 if you already have them, ≈\$1000 per computer if purchase is required

### First Semester

<b>Unit 1: Digital Media Professionalism, Communication, Teamwork, and Work Ethic</b>	Professionalism, Job expectations, Oral, Written, Technological, and Visual communication, Value of Work Ethic, Digital Media publication rights and rights management, Resume & Portfolio Development
<b>Unit 2: Project Management</b>	Using Google Drive and other project management systems for team writing, coordination, and data collection, budgets, team roles.
<b>Unit 3: Interactivity in Practice</b>	Teacher managed project in interactive media. Example: an Arduino + Processing + Web based media kiosk to showcase student work.
<b>Unit 4: Project Conception</b>	Ideation, cost/benefit analysis, negotiating a team’s creative process
<b>Unit 5: Group Project Proposals</b>	Project Outline, Intended audience, Usability, Budget and Justification

### Second Semester

<b>Unit 1: Iterative Design Practices</b>	Agile development practices including Scrum, Gantt charts, iterative goals, progress reports and team presentations.
<b>Unit 2: Production Cycle</b>	Production of the Group projects with iterations toward the final goal.
<b>Unit 3: Project Documentation</b>	Documenting the design process, project concept, and final outcomes of the project. This includes team and self-performance evaluation.
<b>Unit 4: Project Exhibition</b>	Final Project Exhibition presenting the completed project to the intended audience.
<b>As time permits</b>	Guest Media professionals



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### INTERACTIVE DIGITAL MEDIA CAPSTONE

1. Materials:

A desktop or laptop computer, access to 1-to-1 daily, and Internet. Chromebooks will not work with free Arduino software.

Hardware/Reusable Material	Recommended Unit	Cost/Unit
DSLR cameras (Recommend Canon EOS Rebel T5i DSLR Cameras with 18-55mm Lens)	1 per 3-5 students	\$550
16 GB (minimum) SD Card	1/camera	\$10
Cordless Power Drill	1/Classroom	\$50
Hacksaw	1/Classroom	\$20
Box Cutters	1 per 3-4 students	\$15
Hot Glue Gun and Glue Sticks	1 per 3-4 students	\$15
Storage Bins	1 per 3-4 students	\$30
Arduino Starter Kits (Sunfounder Basic Starter Kit with Arduino Uno Board) <a href="https://www.sunfounder.com">https://www.sunfounder.com</a> (Cannot be shared between sections)	1 per 2 students	\$50
<b>Consumable Material</b>		
These items are essential to the course and may take the form of pvc, bolts, spray paint, etc. Teachers will help students specify what is needed upon definition of the projects.	1/Classroom	\$500-\$1000
<b>Software</b>		
Arduino IDE	1 per student	Free on PC; \$1/month for Chromebook

2. Required software, networking access, and access to LSU servers

- Teachers will need to be able to share documents via Google drive with LSU instructors.
- Principals will need to communicate with the district’s information technology department to ensure that there are no technological restrictions that block access to servers in the lsu.edu or stempathways.lsu.edu domains. In addition to the sites mentioned above, students will need web access to other web sites, including, but not limited to, the following:

developer.mozilla.org	stackoverflow.com	www.w3schools.com
p5play.molleindustria.org	codepen.io	tonejs.github.io
alpha.editor.p5js.org	create.arduino.cc	lunapic.com
<a href="https://ezgif.com/sprite-cutter">https://ezgif.com/sprite-cutter</a>	youtube.com	github.com
twinery.org	audacity.org	openshot.org

3. Required teacher collaborations

Teachers will communicate with LSU instructors via a Google group set up for this purpose. Teachers will need to share sample student work with their designated LSU Pathway Point-of-Contact.



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4. Required administration of course content, pre/post test, and research instruments

All required materials and instruments will be either posted in a Google drive or their location announced via the Google group for this course.

5. Course Work

Teachers must present the course material in sequence or as approved by collaboration with the LSU Pathway Point-of-Contact. Teachers are expected to deliver a minimum of 80% of the course material.

6. Other

As this is a project-based learning class, we strongly suggest that each section of the course should be limited to a *maximum* of 20 students. If the course is overloaded with students, they will not receive adequate instruction.