Term Information

Effective Term	Autumn 2026

General Information

Course Bulletin Listing/Subject Area	Design
Fiscal Unit/Academic Org	Design - D0230
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	4106
Course Title	Immersive Media Design 1
Transcript Abbreviation	ImmersMediaDsn1
Course Description	Introduction to the design process for creating real-time computer graphics in applications for extended reality (XR). Develop skills in conceptualization, planning, pre-production, and production of working XR prototypes to create immersive 3D experiences. Survey current trends in technologies and real-time graphics as a means for storytelling, visualization, and experience design.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Laboratory
Grade Roster Component	Laboratory
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	ACCAD 5002 or permission of instructor
Exclusions	
Electronically Enforced	Yes

Cross-Listings

Cross-Listings	

Subject/CIP Code

Subject/CIP Code	11.0804
Subsidy Level	Baccalaureate Course
Intended Rank	Junior

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

Course Details

Course goals or learning objectives/outcomes	• Explain differences in types of extended reality (XR).
	• Compare XR immersive experiences.
	• Discuss technical considerations and limitations.
	• Research and plan XR projects.
	• Create assets for XR environments.
	• Create XR prototypes.
	• Use industry standard XR software and tools for prototyping.
Content Topic List	• World building; storytelling; modeling; interaction design; interaction techniques; immersive media; hybrid media
Sought Concurrence	Yes

Attachments

• DESIGN4106ImmersiveMediaDesign1.pdf: Syllabus

(Syllabus. Owner: Beecher,Mary Anne)

• ACCAD_concurrence.pdf: Concurrence

(Concurrence. Owner: Beecher,Mary Anne)

• Art_concurrence.pdf: Concurrence

(Concurrence. Owner: Beecher,Mary Anne)

• CSE_concurrence.pdf: Concurrence

(Concurrence. Owner: Beecher,Mary Anne)

• TFMA_concurrence.pdf: Concurrence

(Concurrence. Owner: Beecher,Mary Anne)

• DESIGN4106_ImmersiveMediaDesign1revised.pdf: Revised syllabus

(Syllabus. Owner: Beecher,Mary Anne)

Comments

• Religious accommodations statement has been added. Disabilities services statement has been updated. Statement about the provision of additional reading and viewing materials has been modified for clarification. *(by Beecher,Mary Anne on 10/19/2023 11:47 AM)*

• Please see Subcommittee feedback email sent 10/10/2023. *(by Hilty,Michael on 10/10/2023 10:57 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Beecher,Mary Anne	08/24/2023 12:43 PM	Submitted for Approval
Approved	Munch,Fabienne	08/24/2023 05:06 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	09/19/2023 11:04 AM	College Approval
Revision Requested	Hilty,Michael	10/10/2023 10:57 AM	ASCCAO Approval
Submitted	Beecher,Mary Anne	10/19/2023 11:47 AM	Submitted for Approval
Approved	Munch,Fabienne	10/19/2023 01:50 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	10/19/2023 01:56 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Neff,Jennifer Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	10/19/2023 01:56 PM	ASCCAO Approval

Design 4106: Immersive Media Design 1

Instructor	*Name*
Contact	*name.#@osu.edu, office room/building, office hours*
Semester	*AU 2026*
Location/Time	*room/building, meets 2x/week for 2 hr. 40 minutes each meeting*
Format	Studio, 3 credits
Prerequisites	ACCAD 5002 or permission of instructor
Description	Introduction to the design process for creating real-time computer graphics in applications for extended reality (XR). Develop skills in conceptualization, planning, pre-production, and production of working XR prototypes to create immersive 3D experiences. Survey current trends in technologies and real-time graphics as a means for storytelling, visualization, and experience design.

Course Goals

Upon completion of this course, students should be able to do the following:

1. Explain and compare types of extended reality (XR), with particular focus on user experience
2. Discuss technical considerations and limitations of immersive experiences
3. Research and plan XR projects as an individual designer and as a member of a collaborative team
4. Create assets for XR environments and XR prototypes
5. Use industry standard XR software and tools for prototyping
6. Document project work in online portfolio

Affiliated Program Learning Outcomes

1. ***Design of Experiential Media:***
   a. Identify design opportunities and respond with functioning prototypes to demonstrate innovative and engaging experiential media concepts. *Associated course goals: (3) and (4)*
   b. Demonstrate practice of the processes for the development and coordination of digitally based design strategies (for example, storyboarding, prototyping, concept mapping, and the use of scenarios and personas). *Associated course goals: (3), (4) and (5)*
   c. Employ the use of concepts related to the visual, spatial, sound, motion, interactivity, coding, and temporal elements/features of technology in the creation and application of quality experiential media design. *Associated course goals: (4) and (5)*
   d. Create experiential media environments that are technically proficient, aesthetically engaging, and conceptually sophisticated. *Associated course goals: (4) and (5)*

2. **Critical Thinking and Analysis:**
   a. Evaluate works of creative technology in terms of their formal, conceptual, ethical, historical, and social impacts. *Associated course goals: (1) and (2)*
   b. Apply fundamental critical thinking skills to the analysis and interpretation of experiential media projects with particular attention to user-centered practices. *Associated course goals: (1) and (3)*
   c. Appraise the context and implication of one's own work with regard to social responsibility. *Associated course goals: (1) and (3)*
   d. Organize and represent content structures in ways that are responsive to technological, social, and cultural systems. *Associated course goals: (1), (2) and (3)*
   e. *Correlate what is useful, usable, effective, and desirable with respect to user/ audience-centered digitally and physically based experiences. Associated course goals: (2) and (3)*
3. **Adaptability:**
   a. Integrate new media technologies with traditional media in the creation of tangible experiential media experiences. *Associated course goals: (5)*
   b. *Anticipate and adapt to new technologies, concepts, and processes in experiential media creation. Associated course goals: (1) and (2)*
   c. *Demonstrate problem-solving and collaborative skills in both technical and creative arenas in ways that enhance the ability to work successfully on teams and to organize collaborations among people on teams. Associated course goals: (3)*
4. **Professional Practice:**
   a. Employ both verbal and visual aspects of communication in the presentation of resulting creative works. *Associated course goals: (1) and (2)*
   b. Present and defend work from an informed conceptual, ethical, historical, and social point of view. *Associated course goals: (1) and (2)*
   c. Market and promote one's work through portfolio development. *Associated course goals: (6)*

Course Methodology

This course will consist of lectures and demonstrations and hands-on studio production work for individual and group work during class hours. The instructor will present examples of XR applications in the form of documentation, readings, and demonstration. Students will complete assignments and exercises designed to aid in learning topics and techniques and evaluation of progress.

Students must demonstrate satisfactory achievement of course objectives through the fulfillment of course projects and by contributing to class discussions and critiques. Students are expected to seek and apply their own unique creative voice to all course assignments and projects.

Assignments

Course Projects and Process: Each of the course projects will be broken down into weekly graded process steps. To be successful in the course, students will need to complete process steps for each project. Placing a value on completing the process steps addresses two pedagogical issues: 1) it helps students to learn and value the production steps necessary for making immersive media; 2) it realigns the grading to value both process and outcome, by distributing the grading throughout all phases of production.

Course Textbooks and Chapter Discussion: There is a course textbook for this class, referred to as *Experience on Demand (See Reading Materials for more details)*. Students will find this book online as an e-book via the OSU Libraries or may choose to purchase it online.

Biweekly, a chapter of the course textbook will be presented by a group of assigned discussion leaders. The discussion leaders are responsible for engaging class participants in the chapter's subject matter through creative means. This may include hands-on exercises, games, worksheets, and other creative activities. The leaders should keep in mind the overall summary of the chapter, and allow us to discuss the key takeaways, unanswered puzzles, and practical use in the classroom. This period should last between 20-30 minutes and will typically happen within the first hour of class.

PROJECT DESCRIPTIONS

Project One: Immersive World Building / 5 Weeks
Design and build a space by making a model that you can walk through and explore. This can be an architectural space, an underwater world, or an imaginary space. Create the space and its elements in such a way that the participant has an intuitive feel for the layout and how it would be navigated in the real world. You can experiment with design elements and mix and match styles. There must be at least 3 animated elements active in the environment.

Project Two: Playful Interactivity in Immersive Media / 5 Weeks
Building on the immersive world from Project 1, design three playful interactive elements within your existing world that fit the context of that world and are designed to engage a participant. Through play, the interactive elements should provide opportunities for participants to actively engage with the environment's implied narrative.

Project Three: Hybrid Immersive Media for Learning / 5 Weeks
For the final project, in teams of three, students will design a system that leverages the affordances of VR and physical elements to help people learn about a topic. The final deliverable will consist of a hi-fi prototype of the system's interface and scenario.

See Calendar of Topics and Project Briefs for further details.

Reading and Viewing Materials

Course Text – Available via OSU Libraries
- Bailenson, Jeremy. *Experience on Demand, What Virtual Reality Is, How It Works, And What It Can Do*. Norton Publishing. 2018. ISBN978-0-393-35685-4.

Because we are examining an emerging topic, students may also receive substitute or additional materials via Carmen to read and view during or outside of class to support discussion or to serve as precedents for design activities.

Grading

Evaluations for each project deliverable will consist of a numerical grade following the grading scale listed below.

Type	Description	Point Value
Project 1	**Immersive World Building**	
Process Step 1	Proposal and Concept Development	5
Process Step 2	Asset Building & Prototype 1	5
Process Step 3	Refined Prototype 1	5
Process Step 4	Refined Prototype 2	5
	Presentation Prototype	25
Project 2	**Playful Interactivity in Immersive Media**	
Process Step 1	Proposal and Concept Development	5
Process Step 2	Asset Building & Prototype 1	5
Process Step 3	Refined Prototype 1	5
Process Step 4	Refined Prototype 2	5
	Presentation Prototype	25
Project 3	**Immersive Media Design for Learning**	
Process Step 1	Proposal and Concept Development	5
Process Step 2	Asset Building & Prototype 1	5
Process Step 3	Refined Prototype 1	5
Process Step 4	Refined Prototype 2	5
	Presentation Prototype	25
Readings/Discussion	**Leading Chapter Discussion**	15
	Total	**150**

Grading Scale

142-150 A	133-131 B+	117-114 C+	101-97 D+
141-135 A-	129-125 B	113-109 C	96-90 D
	123-118 B-	108-102 C-	below 90 E

Work evaluations fall within four equally weighted categories. Excellence in each of these categories constitutes a grade of "A": **Degree of exploration • Degree of resolution • Quality, depth, and synthesis of research • On-time completion.**

Grading Policy

To receive a passing grade in the course, students must demonstrate satisfactory achievement of course learning objectives through fulfillment of course assignments and by contributing to class discussions. Adherence to deadlines is expected. It is the individual student's responsibility to keep track of the goals and deadlines and to present the work to the class and instructor on the specified dates. All assignments must be completed and turned in to receive a passing grade in the course.

Late or missed goals will be graded as follows:

- An assignment turned in after the original due date but by the start of the next class will have the grade reduced 10%
- An assignment turned in after the original due date and after the subsequent next class start time but before the start time of the 3rd subsequent class (1 week) will have the grade reduced 30%
- Late assignments turned in more than 4 classes (2 weeks) past the original due date will receive a grade (D).

Attendance Policy

All students are required to be on time and in attendance for each class. Arrive less than 10 minutes late to be counted as present. Four (4) absences will lower a final grade by 1/3 a letter. Five (5) absences will lower a final grade by one letter. Six (6) absences will result in a failing grade ("E") for the course. The need for excused absences should be discussed with the instructor (e.g., your own illness, family illness or death, conference presentations) **Do not come to class if you are feeling ill, have a temperature or have been told to isolate or quarantine. Let me know if you are ill and you will be excused without penalty.**

Disability Services

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion.

If you are isolating while waiting for a COVID-19 test result, please let me know immediately. Those testing positive for COVID-19 should refer to the Safe and Healthy Buckeyes site for resources. Beyond five days of the required COVID-19 isolation period, I may rely on Student Life Disability Services to establish further reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Mental Health Statement

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614--292--5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614--292--5766 and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Religious Statement

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

Academic Misconduct Statement

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5- 487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/.

Calendar of Topics and Assignments

Week 1

    Topic: Introduction, Overview, Resources. Hardware and software overview
    Assignment/Project: Project 1, Immersive World Building **ASSIGNED**
    Readings: Experience on Demand, Chapt. 1, Practice Made Perfect, pgs. 14-43

Week 2

    Topic: World Building Techniques
    Assignment/Project: Project 1 Asset Building and Prototype **DUE**
    Readings: Reading Discussion

Week 3

    Topic: World Building in Context
    Assignment/Project: Project 1, Rough Prototype **DUE**
    Readings: Experience on Demand, Chapt. 2, You Are What You Eat, pgs. 44-75

Week 4

    Topic: World Building as Storytelling
    Assignment/Project: Project 1, Revised Prototype **DUE**
    Readings: Reading Discussion

Week 5

    Topic: World Building Techniques, Beyond the Basics
    Assignment/Project: Project 1, Immersive World Building **DUE**
    Readings: *Experience on Demand, Chapt.3 Walking In The Shoes Of Another, pgs. 76-107*

Week 6

    Topic: Techniques for Building Interactions
    Assignment/Project: Project 2, Playful Interactivity in Immersive Media **ASSIGNED**
    Readings: Reading Discussion

Week 7

    Topic: More Interaction Design Techniques
    Assignment/Project: Project 2, Asset Building and Prototype 1 **DUE**
    Readings: *Experience on Demand, Chapt.6 Absence Makes The Pain Grow Fainter,* pgs. 150-173

Week 8

    Topic: Designing Interaction in Context
    Assignment/Project: Project 2, Refined Prototype 1 **DUE**
    Readings: Reading Discussion

Week 9

    Topic: Interaction Design in Support of Playfulness
    Assignment/Project: Project 2, Refined Prototype 2 **DUE**
    Readings: *Experience on Demand, Chapt.7 Bringing Social Back To The Network,* pgs. 174-202

Week 10
> **Topic:** Interaction Design in Support of Story
> **Assignment/Project:** Project 2, Playful Interactivity in Immersive Media **DUE**
> **Readings:** Reading Discussion

Week 11
> **Topic**: Experiential Learning and Immersive Media
> **Assignment/Project:** Project 3, Immersive Media Design for Learning **ASSIGNED**
> **Readings:** *Experience on Demand, Chapt.8 Stories in the Round,* pgs. 203-227

Week 12
> **Topic:** Designing for Active Learning in Immersive Media
> **Assignment/Project:** Project 3, Asset Building and Prototype 1 **DUE**
> **Readings:** Reading Discussion

Week 13
> **Topic:** Combining Digital and Physical Worlds
> **Assignment/Project:** Project 3, Refined Prototype 1 **DUE**
> **Readings:** *Experience on Demand, Chapt.9 Reverse Field Trips,* pgs. 228-246 and *Chapt.10 How to Build Good VR Content,* pgs. 247-260

Week 14
> **Assignment/Project:** Project 3, Refined Prototype 2 **DUE**
> **Reading:** Reading Discussion

Finals Week
> **Assignment/Project:** Project 3, Immersive Media Design for Learning **DUE**