Last Updated: Vankeerbergen,Bernadette Chantal 09/19/2023

Term Information

Effective Term Autumn 2026

General Information

Course Bulletin Listing/Subject Area Design

Fiscal Unit/Academic Org

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 concentralization, planning, pre-production, and production of working XR.

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 No

education component?

Grading Basis Letter Grade

Repeatable No

Course Components

Grade Roster Component

Credit Available by Exam

Admission Condition Course

Off Campus

Campus of Offering

Laboratory

Laboratory

No

No

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 Sought Concurrence

• World building; storytelling; modeling; interaction design; interaction techniques; immersive media; hybrid media 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)

Comments

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,Bernadet te Chantal	09/19/2023 11:04 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Neff,Jennifer Vankeerbergen,Bernadet te Chantal Steele,Rachel Lea	09/19/2023 11:04 AM	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 List for more details)*. Students will find this book online as an ebook 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.

Туре	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

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 and Journal Articles – On reserve at OSU Fine Arts Library

• Bailenson, Jeremy. Experience on Demand, What Virtual Reality Is, How It Works, And What It Can Do. Norton Publishing. 2018. ISBN 978-0-393-35685-4.

Tutorials:

- Please obtain a free library card from Columbus Metropolitan Libraries (CML) https://www.columbuslibrary.org/card-application
- 2. Your CML card number will provide you with free access to assigned LYNDA tutorials on the CML Research page at: https://www.columbuslibrary.org/research
- 3. Some tutorials will be free online tutorials as listed on the course Carmen site.

Students may also receive reading and viewing materials during the semester via Carmen. There will be an assortment of collected materials, short papers, and media to view covering a wide range of experiential media projects, emerging developments in the field and related materials.

Grading

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

- Project 1 is 45 points.
- Project 2 is 45 points.
- Project 3 is 45 points.
- Leading Chapter Discussion is 15 points.

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 F

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 make all learning experiences as accessible as possible. 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 accommodation, I request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodation so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Help for Distressed Students

A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other, and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the semester are encouraged to contact the OSU Counseling and Consultation Service (614-292-5766; www.ccs.osu.edu) for assistance, support, and advocacy. This service is free and confidential.

Religious Statement

Our inclusive environment allows for religious expression. Students requesting accommodations based on faith, religious or a spiritual belief system in regard to examinations, other academic requirements or absences, are required to provide the instructor with written notice of specific dates for which the student requests alternative accommodations at the earliest possible date. For more information about religious accommodations at Ohio State, visit odi.osu.edu/religious-accommodations.

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

The Ohio State University College of the Arts and Sciences Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental reactions to course requests. **An e-mail may be substituted for this form.**

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Units should be allowed two weeks to respond to requests for concurrence.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Proposal to review

Department of Design				
Initiating Academic Unit Course Number Course Title				
New major proposal and ten new courses 8/1/2023				
Type of Proposal (New, Change, Withdrawal, or other)		Date request sent		
ACCAD		8/15/2023		
Academic Unit Asked to Review		Date response needed		

B. Response from the Academic Unit reviewing

Response: include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

ACCAD grants concurrence for Design's new major XMD based on agreements outlined in email exchanges in early May 2023 between Design and ACCAD. Basically, Design will be financing a lecturer who will duplicate Kyoung's ACCAD 5002 course. This will not happen until the first XMD cohorts reaches their 3d year, Design will see if 5301 is also impacted (can we add capacity or do we need to duplicate). More details in the emails.

	natures			
9	Jana Hashi	amova Interim Director	ACCAD	8/17/2023
1	Name	Position	Unit	Date
2.	Name	Position	Unit	Date
3.	Name	Position	Unit	Date

Re: Concurrence request

Lisbon, Laura < lisbon.1@osu.edu>

Thu 8/17/2023 7:52 AM

To:Beecher, Mary A. <beecher.17@osu.edu> Cc:Munch, Fabienne <munch.31@osu.edu>

Dear Mary Anne,

The Department of Art offers its concurrence for the new Experiential Media Design major as well as the new courses developed to support the major.

Best wishes,

Laura



Laura Lisbon

Professor and Chair

The Ohio State University

Department of Art

College of Arts and Sciences

254C Hopkins Hall, 128 N Oval Mall, Columbus, OH 43210-1319 614-247-5551 Office / 614-292-5072 Art Office

lisbon.1@osu.edu, art.osu.edu

Pronouns: she/her/hers

From: "Munch, Fabienne" <munch.31@osu.edu>

Date: Tuesday, August 1, 2023 at 2:47 PM

To: "Arora, Anish" <anish@cse.ohio-state.edu>, "Westlake, E.J." <westlake.35@osu.edu>, "Hashamova,

Yana" <hashamova.1@osu.edu>, "Lisbon, Laura" <lisbon.1@osu.edu>

Cc: "Beecher, Mary A." <beecher.17@osu.edu>

Subject: Concurrence request

Dear Chairs and Directors,

The Department of Design is seeking your department's concurrence for a new Bachelor of Science in Design (BSD) program in Experiential Media Design (XMD).

The purpose of the undergraduate design program in Experiential Media Design (XMD) is to prepare designers in conceptualizing and constructing engaging and compelling user experiences through innovative, playful and collaborative creative media practices. Over the course of their studies, students become adept at aligning the principles of design with the construction of immersive experiences that engage people. Students learn to harness and apply the latest media technologies in ways that are uniquely tailored to the needs and requirements of each experience and its stakeholders.

For your review, I have attached the program proposal for the new major and syllabi for the ten new associated courses in the Department of Design, they are:

- DESIGN_XMDProgramProposal.pdf
- DESIGN XMDNewCourses.pdf

I have also attached the College's fillable .pdf concurrence form if you would like to use that, or an email may be substituted for this form.

I would appreciate it if you would email your responses/concurrences to Dr. Mary Anne Beecher (beecher.17@osu.edu), the Department of Design Undergraduate Studies Chair. Responses are due by Tuesday, August 15, 2023. Concurrence will be assumed if no response is received within two weeks. Thank you for your attention to this request, and thank you for your partnership,

Fabienne



Fabienne Münch, PhD

Professor and Department Chair

The Ohio State University

College of Arts and Sciences
Department of Design
100 Hayes Hall
108 North Oval Mall, Columbus, OH 43210
614.247.8943 Office
munch.31@osu.edu

Pronouns: she/her/hers

From: Arora, Anish <anish@cse.ohio-state.edu>

Sent: Wednesday, August 23, 2023 17:52 **To:** Munch, Fabienne <munch.31@osu.edu>

Cc: Fosler-Lussier, Eric <fosler@cse.ohio-state.edu>; Sivilotti, Paul <paolo@cse.ohio-state.edu>

Subject: RE: Concurrence request

Dear Fabienne,

We appreciate the recent discussions and concur.

In what will now be an action item on our side, we'll reflect on alternatives for reviving gentler introductions to programming that already on books or offering other pathways for students, but this wont restrict what you're seeking concurrence for at the moment.

With best wishes, Anish

Anish Arora

Professor and Chair, Computer Science and Engineering Faculty Director, 5G-OH Connectivity Center arora.9@osu.edu

Ingrid Rivera Executive Assistant rivera.153@osu.edu 614-292-5973 Office



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A. Proposal to review

Department of Design

Initiating Academic Unit	Course Number	Course Title		
New major proposal and ten new courses 8/1/2023				
Type of Proposal (New, Change, Withdrawal, or other)			Date request se	ent
Department of Theatre, Film, and Media Arts		a Arts	8/15/2023	
Academic Unit Asked to Review			Date response	needed

B. Response from the Academic Unit reviewing

Response: include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

TFMA may need to increase seats in TH 5331 (one of the listed elective options). Logan and I already have a meeting scheduled to discuss offerings for screenwriting and will add this to considerations for our schedule planning.

ACCAD 5002 is part of the Production Studio category offerings in MIP. As Emily and I noted in a thread from 4/4, we only have 4 seats per section reserved for MIP students. ACCAD 5002 may become an issue if there is an increase in MIP majors and a subsequent additional group of students in the major needing this course without increased seats or offerings by ACCAD.

Signatures					
	Chair	TFMA	8-16-23		
1. Name	Position	Unit	Date		
2. Name	Position	Unit	Date		
3. Name	Position	Unit	Date		