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Hours: M | 9:35 AM – 12:35 PM

DIG6931C SPECIAL TOPICS – MULTI-VERSITY
Spring 2024

Course Meetings:	M	9:35 AM – 12:35 PM
Course Mode:	Campus
Course Location:	CSE Building, Room E413

Course Description

Special Topics – Multiversity is a unique course whose curriculum includes a variety of cutting-edge subjects taught by specialized expert faculty. Combining practical and theoretical methodologies, Multi-versity students are exposed to the contemporary core of digital interactive entertainment and research while working alongside leading minds in exploring an array of fascinating content.

Course Prerequisites

Enrolled in the UF Digital Worlds MiDAS Program

Learning Outcomes

By the end of this course, students will be able to:

- Apply practical and theoretical knowledge to achieve specified outcomes.
- Improve knowledge and skills considered advanced in the digital arts and sciences.
- Produce professional-quality end results while collaborating with expert faculty.

Materials & Books

Required

- Amazon Web Services Account *(Free registration required)*
- WordPress Account *(Free registration required)*
- Unity 3D 2020+ *(Free registration required)*
- Unreal Engine 5+ *(Free registration required)*
- Autodesk Maya 2020+ *(Free registration required)*
- Photoshop CC or equivalent
- Sketchfab Account *(Free registration required)*

Supplemental
- Substance Painter/Designer
- Digital Pen and Drawing Tablet (Photoshop-compatible, Wacom or equivalent)

Technology Requirements
- Unity Editor capable laptop or equivalent with internet access
- Mouse Peripheral
- Payment device (Credit Card) will be required for setting up an AWS account.

Course Schedule

This schedule is only a guide and is subject to change. Unless otherwise indicated, assignments and readings are due the day they are listed on the syllabus, not the following day.

Week	Subject	Assignments/Due
1	**Pathways to Game Development** **Instructor**: Nick Heitzman This module explores the various career paths available to new developers in the games industry – specifically producers, artists, level designers, and programmers.	**None**
2	**Environmental Storytelling Workshop – Planning** **Instructor:** Nick Heitzman This module will be an exercise in preparing to create a very small 3D environment diorama for the purpose of visual development. Each student will prepare a different environment within the set scope of the exercise.	**1. In-class exercises:** ▪ Graybox Maya render **Due** Sunday Midnight
3	**Environmental Storytelling Workshop – Execution** **Instructor:** Nick Heitzman This module takes the graybox 3D environment dioramas and finalizes the meshes, textures, and materials per the planning phase.	**2. In-class exercises:** ▪ Final Maya render **Due** Sunday Midnight
4	**Mastering Sketchfab for Your Portfolio** **Instructor:** Nick Heitzman This module integrates the 3D environment dioramas in the Sketchfab 3D viewer, setting up lighting, complex materials, post-processing, custom cameras, annotations, and animation which can be embedded in any website to view the artifact.	**3. In-class exercises:** ▪ Sketchfab viewer link ▪ 2 HD image renders **Due** Sunday Midnight
5	**Introduction to Artificial Intelligence (AI) and the Arts 1** **Instructor: Amelia Winger-Bearskin** How do innovations in the field of Artificial Intelligence impacted the fields of Art, Science and Fiction part 1.	**4. In-class exercises:** ▪ Lecture, homework is writing and digital artifact creation **Due** Sunday Midnight
6	**Introduction to Artificial Intelligence (AI) and the Arts 2** **Instructor: Amelia Winger-Bearskin** How do innovations in the field of Artificial Intelligence impacted the fields of	**5. In-class exercises:** ▪ Homework is creative coding assignment started in class in

	Art, Science and Fiction part 2. Introduction to Creative Coding as building artifacts for your AI homework.	Miro. **Due** Sunday Midnight
7	**Science Storytelling with AI and Data Systems 1** **Instructor: Amelia Winger-Bearskin** Learn how to begin researching a scientific subject and creating media assets to share this research with a general audience part 1. Media can be interactive, video, sound, creative code, writing, games, and social media storytelling.	None

8	**Science Storytelling with AI and Data Systems 2**
	Instructor: Amelia Winger-Bearskin
	
	Learn how to begin with researching a scientific subject and creating media assets to share this research with a general audience part 2. Media can be interactive, video, sound, creative code, writing, games, and social media storytelling.
		6. In-class exercises:
		  ▪ Lecture and in class storytelling building activity
		  ▪ Homework is a breaking news story pitch (written)
		  ▪ About scientific research started in class
		
		Due Sunday Midnight

9	**Storytelling as a Design Practice**
	Instructor: Eamon O'Connor
	This module will look to the principles and practice of UX Design to provide students with specific tricks, techniques, and strategic approaches to writing and editing their work.
		7. In-class exercises:
		  ▪ Exercises from *Oblique Strategies*
		  ▪ Run a SCAMPER analysis on their thesis projects
		
		Due: Sunday Midnight

10	**Spring Break**	**None**
11	**Oblique Strategies** **Instructor:** Eamon O'Connor This module is a brief survey of the most exciting and important recent technical developments and aesthetic trends in the field of digital arts and media. Students will assess the current state of these trends.	**8. In-class exercises:** ▪ Student presentation **Due** In class
12	**Storytelling and Digital Performance in a Professional Context** **Instructor:** Eamon O'Connor This module will help students consider potential applications of storytelling techniques in professional life. Topics covered will include personal branding, social media, digital etiquette, interviews, cover letters, and workplace communication.	**9. In-class exercises:** ▪ Student presentation **Due** In class

13	**Introduction to Amazon Web Services 1**
	Instructor: Angelos Barmpoutis
	This module will cover how to create an AWS account, set up a Lightsail server with public IP address and a custom URL, and set up an e-commerce website.
		10. In-class exercises:
		  ▪ Create AWS account
		  ▪ Launch a Lightsail instance
		  ▪ Obtain public IP

	This tutorial will also cover other server management topics such as SSH protocol, Linux command line, Ubuntu file structure and Software installation such as Python and Node.js.	▪ Manage server ▪ Install WordPress ▪ Create website **Due:** Sunday Midnight
14	**Introduction to Amazon Web Services 2** **Instructor:** Angelos Barmpoutis This tutorial will cover other server management topics such as SSH protocol, Linux command line, Ubuntu file structure and Software installation such as Python and Node.js.	**11. In-class exercises:** ▪ Practice basic Linux commands ▪ Install packages ▪ File transfer ▪ Storage management ▪ Flexible Cloud **Due:** Sunday Midnight
15	**Game Engine Development 1** **Instructor:** Angelos Barmpoutis This module will cover the basic elements of a game engine by implementing a small-scale custom game engine for Meta Quest headsets (1,2 & Pro) in Android Studio. By the end of this module the students will be able to understand better existing Game Engines and their back end.	**12. In class exercises:** ▪ Install Android Studio ▪ Download J4Q ▪ Create procedural art ▪ Make shader in GLSL **Due:** Sunday Midnight
16	**Game Engine Development 2** **Instructor:** Angelos Barmpoutis This module will cover the basic syntax of GLSL Shader Language and the openXR protocol.	**13. In class exercises:** ▪ Practice basic GLSL shader syntax **Due:** Wednesday Midnight

Grading Criteria

Assignment / Assessment	Sub Points	% of Grade
Assignments – x# weekly assignments, x# points each	**130**	**90**
Exercise 1: Environmental Storytelling 1	10	
Exercise 2: Environmental Storytelling 2	10	
Exercise 3: Sketchfab for Portfolio	10	
Exercise 4: AI and the Arts 1	10	
Exercise 5: AI and the Arts 2	10	
Exercise 6: AI, Data and Science Storytelling	10	
Exercise 7: Oblique Strategies and SCAMPER Analysis	10	
Exercise 8: In-class presentation ("Oblique Strategies")	10	
Exercise 9: In-class presentation ("Digital Performance")	10	

Exercise 10: Create a website using AWS	10	
Exercise 11: AWS server management	10	
Exercise 12: Game Engine Development 1	10	
Exercise 13: Game Engine Development 2	10	
Participation – Students are expected to actively participate in class discussions and activities.		**10**

Grading Scale

Letter Grade	% Equivalency
A	94 – 100%
A-	90 – 93%
B+	87 – 89%
B	84 – 86%
B-	80 – 83%
C+	77 – 79%
C	74 – 76%
C-	70 – 73%
D+	67 – 69%
D	64 – 66%
D-	60 – 63%
E, I, NG, S-U, WF	0 – 59%

More information on grades and grading policies is here: https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/

Materials and Supply Fees

Material and supply and equipment use fee information are available from the academic departments or from the schedule of courses (Florida Statutes 1009.24). The total course fee for this class is $0.00. The total course fee for each course is listed on the UF Schedule of Courses. (https://registrar.ufl.edu/soc/)

Course Policies

Attendance Policy, Class Expectations, and Make-Up Policy

We value participation more than mere attendance. The instructor is responsible for communicating the specific details of what percentage of your grade (if any) will be assigned to participation, and how class participation will be measured and graded. Interaction with your peers and the instructor will empower you to greater achievement.

In our course, attendance is taken at the beginning of each class period and is calculated as the Participation element which makes up 10% of your overall grade. Any unexcused absences are factored into the Participation grade total. Exempt from this policy are only those absences involving university-sponsored events, such as athletics and band, and religious holidays, family emergencies, and health issues for which you must provide appropriate documentation in advance of the absence. All assignments are due by the stated date and time.

Late assignments because of an unexcused absence may be submitted up to one week (7 days) after the scheduled due date, incurring a 10% grade penalty. This does not apply to the Final Project which must be submitted on time as scheduled.

Additionally, tardiness will not be tolerated. If you are tardy for three class periods, you will receive an unexcused absence.

Students may only participate in classes if they are registered officially or approved to audit with evidence of having paid audit fees. The Office of the University Registrar provides official class rolls to instructors. Students are responsible for satisfying all academic objectives as defined by the instructor. Absences count from the first-class meeting.

Acceptable reasons for absence from or failure to engage in class include illness; Title IX-related situations; serious accidents or emergencies affecting the student, their roommates, or their family; special curricular requirements (e.g., judging trips, field trips, professional conferences); military obligation; severe weather conditions that prevent class participation; religious holidays; participation in official university activities (e.g., music performances, athletic competition, debate); and court-imposed legal obligations (e.g., jury duty or subpoena). Other reasons (e.g., a job interview or club activity) may be deemed acceptable if approved by the instructor.

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergency situations, students should contact their instructor as soon as conditions permit.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during absence from class or inability to engage in class activities because of the reasons outlined above.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

Course Technology
The students will be required to have access to and use a personal computer with access to the Internet. Word editing software will be required for written assignments.

The University of Florida and Digital Worlds requires that students have access to and ongoing use of a laptop/mobile computer for DIG courses in order to be able to function in the current learning environment. Digital Worlds requires each student's laptop computer to meet certain minimum specs for heavy graphics use, the requirements documented below must be met. https://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/technology-requirements/

Course Communications
Students can communicate directly with the instructor regarding the course material through the course management system (CANVAS) using "Canvas Mail".

Course Modality
Course modality is the way in which a class is offered/delivered to students by the instructor. All students, regardless of the modality, will achieve the same learning objectives. Students can check their class schedules or

reference the top of this syllabus to see the format(s) available for each of their individual classes. The modality of a course does not vary during a semester, and students are expected to adhere to the instructor-defined attendance guidelines for that format. Use the guide below to familiarize yourself with the various ways classes are offered at the Digital Worlds Institute.

Know Your Course Modality

Face-to-Face (F2F)	Online Asynchronous (OA)	Online Synchronous (OS)
Students attend class F2F in a classroom. Class sessions may be recorded for students to view later.	Students watch the posted recording of the class session or studio recording online at their convenience.	Students participate in a class in real-time through Zoom.
Hybrid refers to a course that is partially Face-to-Face (F2F) and Online Asynchronous (OA)		
In a **HyFlex Model**, students have the flexibility of moving across all three modalities as needed or desired.		

Course Technology
The students will be required to have access to and use a personal computer with access to the Internet. Word editing software will be required for written assignments.

The University of Florida and Digital Worlds requires that students have access to and ongoing use of a laptop/mobile computer for DIG courses in order to be able to function in the current learning environment. Digital Worlds requires each DAS major's laptop computer to meet certain minimum specs for heavy graphics use, the requirements documented below must be met. https://digitalworlds.ufl.edu/programs/ba-in-digital-arts-sciences/technology-requirements/.

Course Communications
Students can communicate directly with the instructor regarding the course material through the course management system (CANVAS) using "Canvas Mail".

Course Recordings
Our class sessions may be audio-visually recorded for students in the class to refer and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Creation of Original Content Ethics

For original projects and all assignment deliverables, students should remember that representations of acts of violence, coarse and offensive language, sexual behavior, bodily function and ability, neurodiversity, and personal identity are likely to cause extreme audience response, regardless of the creator's intentions. In addition, the recreation of such actions and subjects for fictional purposes may unintentionally traumatize or negatively impact those who collaborate in the creation of the images. While the university encourages students to explore themes and tell stories that may include this difficult subject matter, they should be cautioned against modes or styles of representation that might be considered unnecessarily offensive or potentially triggering. Instructors, faculty, and university administrators reserve the right to not show or share any student work they feel is inappropriate for their classroom or for public exhibition, as there may be concerns about the impact of such work on the community. We encourage students to consult with their faculty when producing work that might be considered controversial, and to err on the side of being cautious when it comes to making decisions about a project's content - in other words, make the PG-13 version of your story, not the R version, and certainly not the "unrated" version. This is also to help students understand that most professional creative situations have strict guidelines and limitations on such content and how it is produced: your ability to tell stories effectively with "less" is a strong professional skill that will aid in the dissemination of your work to a broader audience.

Course Technology Support

Technology Support Center
The Technology Support Center provides computer support for Digital Worlds students who access Zoom, lecture recordings, student equipment, facilities, and other technology-based resources.
http://digitalworlds.ufl.edu/support

For computer assistance related to Zoom, lecture recordings, student equipment, and facilities requests please email support@digitalworlds.ufl.edu.

UF Computing Help Desk
For support related to account services, technical consulting, mobile device services, software services, administrative support, application support center, and learning support services, please contact the UF Computing Help Desk available 24 hours a day, 7 days a week at 352-392-4357 or helpdesk@ufl.edu.

University Policies

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Class Demeanor
Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions

held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Netiquette Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats, more information can be found at: http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://catalog.ufl.edu/UGRD/academic-regulations/ferpa-confidentiality-student-records/

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/

Campus and Academic Resources

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.

Online Students Complaints: View the Distance Learning Student Complaint Process.

Disclaimer: This syllabus represents the instructor's current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.