Graduate Seminar Syllabus

Fall 2020 Graduate Seminar

Credit Hours: 4

www.evl.uic.edu/design/ seminar/

Office Hours: By Appointment Meetings:

Wednesdays 4.00-6.40pm online / synchronous **Via:** website, Zoom, Blackboard Daria Tsoupikova

tsoupi@uic.edu

Description and Objectives

This graduate seminar is a forum for exploring advanced topics in interactive media and virtual reality (VR) design. Participants will investigate novel forms of design practice using advanced technologies focusing on creative coding, 3D visualization, audio design, AI, typography and seminal works. This seminar will take a deep dive into the techniques and challenges of the designs for virtual reality.

With exponential growth in the application of Machine Learning (ML) and AI in all creative arts, the questions about authorship, ethics, autonomy, machine intelligence and aesthetics outline the evolution and future of creative AI. What is the future of design in the context of rapid advancement of technology? What happens when quantified technologies instead of being a choice for designer became a required tool? We will cover a breadth of topics not only limited to the "how-to" of AI/VR, but also explore the history of the VR art and design, creative coding, real-time typography, ethics and visualization critique.

We are experiencing an outburst of the VR technologies across fields and industries, influencing our everyday life and work. The increasing accessibility of headsets is attracting designers into VR to examine its potential beyond gaming. However, despite this proliferation, there are conceptual, theoretical and practical challenges that require effective collaboration. Semiar participants will share reflections of the impact of advanced technologies on contemporary design theory and discuss how contemporary technologies can inspire novel forms of design practice.

The seminar will study the cognitive factors regarding users' perception and usage of VR and advanced technologies necessary to realize their creative potential. We will read about, discuss and examine the importance of considering cognitive problems in design, development or use of VR solutions. Can we define theoretical, practical and empirical methods that can provide a better understanding of design communication possibilities in modern virtual-, augmented-, or mixed reality environments?

Participants will develop new skills and produce interactive projects using 3D, visualization, VR, AR, multimedia and audiovisual media. This course will introduce the basics of coding and scripting and it designed for students with no prior programming experience. We will use Maya, Adobe CS, Unity3D game engine, C#, and other software tools and languages to develop interactive applications and class exhibitions. The coursework will be organized around the development of these projects, to be completed individually or in teams.

To contextualize these projects participants will read from seminal and contemporary writings on virtual reality, media design, interactive narrative, creative AI, immersive experiences, and information visualization from journals such as Leonardo, SIGGRAPH and the International Symposium on Electronic Art (ISEA). Over the course of this semester participants will write and review research papers to be submitted to a peer reviewed design/media art conference at the end of the year.

Readings

Cultural Analytics by Lev Manovich (upcoming October 2020)

ACM Transactions on Graphics (Proceedings of SIGGRAPH), 2020 and earlier. (Available from ACM through UIC digital library)

Leonardo, 2020 and earlier (Available from MIT Press through UIC digital library)
Proceedings of the International Symposium on Electronic Art, 2020 and earlier (online)
Immersed in Technology: Art and Virtual Environments. Edited by Mary Anne Moser and
Douglas MacLeod (1996)

The VR Book - Human-Centered Design for Virtual Reality by Jason Jerald (2015) Selected readings from The New Media Reader, edited by Noah Wardrip-Fruin and Nick Montfort, MIT Press 2003.

Peripheral Vision: Bell Labs, the S-C 4020, and the Origins of Computer Art, Zabet Patterson, MIT press, 2015.

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Evaluation and Requirements

Your final grade will be based on your performance on the class projects, assignments, attendance, discussions, and participation. In order to successfully pass the course, students will be expected to complete the activities listed below. Weights listed between parentheses indicate the contribution of the specific component to the final course grade. The course evaluation components listed below are mandatory. Students do not have the option of opting out of any of the activities required for the assessment of these components.

Attendance and Participation (20%):

this component of the final grade is based on your contribution to the class in the form of attendance and active participation. Students are expected to attend every class meeting, arrive on time and stay until the end. Regular and punctual attendance may be used, at the professor's discretion, to make adjustments to the final grade in borderline cases. Active participation will help students achieve the best learning experience. Completing the readings indicated in the class schedule before class, and being fully present during each class will help students actively engage during each class meeting. Active participation includes active engagement during in-class activities and contributions through asking questions or providing answers when material is unclear. The professor will assume that you are well prepared for each class meeting and will feel free to call upon you to provide an answer or comment. Each absence will be penalized by 1% in the case where permission was not granted by the professor ahead of time. More than two unexcused absences

will result in a reduction of the final grade by one letter grade; with every additional unexcused absence, the final grade will drop by an additional grade. Be prepared for a lot of hard work: be prepared to design, research and code, often, and much outside of the class. This course will be difficult but also very much in-depth and useful to prepare your graduation portfolio.

Assignments, Discussions (40%):

Assignments will be due on Wedensdays by 12:00 pm unless otherwise specified. Project deliverables will have a different deadlines' structure. Any number of unannounced quizzes may be given during the semester at the beginning or end of class. There are no make-ups for assignments or quizzes.

Project (40%): Students will propose their own or team projects and go through an ideation phase. Ideas will have to be approved by the instructor and a client. Each student/team will have to submit various deliverables including a project proposal, prototype wireframes and/or user flow charts, market research, sketches, peer evaluations, simulations, user testing evidence, presentation and final design. Stuents are expected to submit all the deliverables in order to receive a final grade on the group project. Members are expected to contribute to every deliverable and be present in ALLclass presentations. Kindly be aware that peer evaluations can increase your final grade by 5% or reduce it by 15%.

| A (90-100%) work of exceptional quality and craft | B (80-89%) work of overall good quality and craft | C (70-79%) work of overall average quality and craft | D (60-69%) work of overall poor quality and craft | F (0-59.9%) work is incomplete or missing | an incomplete is given only in the event of extreme or dire circumstances |
|----------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------|
| level of interest and quality of research exceeds expectations | level of interest and quality of research meets expectations | level of interest and quality of research is minimal | level of interest and quality of research is poor | no demonstrated interest or evidence of research | |
| deep understanding | clear understanding | vague understanding | lacks understanding | no understanding | |
| of material and concepts | of material and concepts | of material and concepts | of material and concepts | of material and concepts | |
| presented | presented | presented | presented | presented | |
| class participation | class participation | class participation | class participation | class participation | |
| is active and enthusiastic, | is open and attentive, | is minimal, | is nonexistent, | is nonexistent, | |
| perfect attendance | good attendance | inconsistent attendance | weak attendance | poor attendance | |

DFS 520

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Course Policies

Attendance and Preparation for Class: You are expected to attend all scheduled class sessions with your reading and supplementary materials. Readings are to be completed prior to class.

Laptops, Tablets and Cell Phones:

While this course is centered on mobile technologies, using mobile devices such as cell phones and tablets (even for texting purposes) in class is unprofessional behavior and forbidden in this course. Turn your cell phones to airplane mode while in class. Never answer a phone call in class. Employers will leave you a message or call you back; they also want professionals who know when and when not to take calls.

Laptops can only be used for classroom purposes when directed by the professor. Bring your laptops to every class but please leave them in your book bags or closed until needed. Misuse of laptops or mobile devices will be considered a breach of discipline and appropriate action will be initiated by the professor.

Absences: Each absence will be penalized by 1% in the case where permission was not granted by the professor ahead of time. More than two unexcused absences will result in a reduction of the final grade by one letter grade; with every additional unexcused absence, the final grade will drop by an additional grade. In the event you have an excused absence, it is your responsibility to notify the instructor and catch up on missed class material.

Assignments: In both the professional and academic world, you must meet deadlines. In this class, assignments will be due on Mondays by 1:00 pm unless otherwise specified. Make sure to double check the submission deadline for every assignment. Assignments submitted after the deadline will be considered late.

Late Assignments: Late assignments will receive a 15% penalty for the first day they are late, and 10% for each day afterwards . So, if you submit a perfect assignment a day late, you earn 100% - 15% = 85%; two days late, you earn 100% - 25% = 75%; and so on. Hardware failure is not an acceptable reason for turning in an assignment late. You should always make a backup of your files.

Lab Fee

A \$125.00 laboratory fee is required for this course, which is used for the course supporting materials, and supplies (mobile devices, printer paper, copies, media storage, supplies for presentation etc.)

Software / Hardware

laptop (2016 or newer!) broadband Internet connection Adobe Creative Suite (XD, Illustrator, Photoshop, InDesign) UIC web account / Google account / Zoom account Lynda.com Training Tutorials UIC, http://www.uic.edu/depts/accc/training.html/index.html Blackboard github.com

Electronic Communication Mantra

If it's an announcement, grade, quizz or discussion it's on Blackboard; if it's any material, link, assignment, date or video, it's on the class website; if it's a file upload/download it's on Goodle Drive.

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Campus Resources

Academic Integrity

UIC is committed to providing an environment in which research, learning, and scholarship can flourish and in which all endeavors are guided by academic and professional integrity. All members of the campus community—students, staff, faculty, and administrators—share the responsibility of ensuring that these standards are upheld so that such an environment exists. Instances of academic misconduct will be handled pursuant to the Student Disciplinary Policy.

Counseling Center

UIC is committed to helping students deal with stress, handle a crisis or trauma, cope with the transition to college, gain strength from gender and cultural identity, or manage mental illness and other issues. Our counselors can help students increase resilience and positive well-being by developing effective coping and problem-solving skills. Click the link to make an appointment.

Disability Resource Center

UIC is committed to full inclusion and participation of people with disabilities in all aspects of university life. Students who face or anticipate disability-related barriers should use the link to connect with the Disability Resource Center (DRC). Instructors in receipt of a Letter of Accommodation will work with the student and the DRC to implement the approved accommodations.

Office for Access and Equity

UIC is committed to providing access to employment, programs, and services in an environment free of unlawful discrimination and harassment. Dispute Resolution Services (DRS) provides confidential consultation, facilitation, and mediation services to students, faculty, academic and support staff.

Nondiscrimination Policy Statement

UIC is committed to the most fundamental principles of academic freedom, equality of opportunity, and human dignity involving students and employees. Freedom from discrimination is a foundation for all decision-making at UIC. Students are encouraged to click the link to review the statement.

Grievance Procedures

UIC is committed to the most fundamental principles of academic freedom, equality of opportunity, and human dignity involving students and employees. Freedom from discrimination is a foundation for all decision making at UIC. Students are encouraged to study the University's "Nondiscrimination Statement." Information on grievance policies and procedures is available on the University web pages of the Office of Access and Equity: www. uic.edu/depts/oae.

Special Needs

Any individuals with learning disabilities or special needs must make the instructor aware of them prior to the due date of the first major assignment. Those who require accommodations for access and participation in this course must be registered with the Disability Resource Center. Please contact DRC at 312/413-2183 (voice) or 773-649-4535 (VP/Relay) and consult the following: http://drc.uic.edu/.

Disclaimer

Projects created in this course may be used by the Department for purposes of promotion for students, the School or the University in general. The School may also use these materials for instructional purposes in future courses.

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Campus Safety

UIC is committed to public safety, and provides UIC Alerts for real-time news and a free smartphone app that allows students to take advantage of the many campus safety services offered. Please download the appropriate app to your smartphone—Apple (UIC SAFE) or Android (UIC Mobile)—and familiarize yourself with its features so you're prepared in case of an emergency. In addition to the features listed below, the app also contains a full Safety Toolbox, Support Resources, and Emergency Response Guidelines.

Panic Button

one-touch button to silently send your location to UIC Police

Friend Virtual Walk

real-time tracking with a contact of your choice

UIC Police Virtual Escort

real-time tracking with UIC Police, available 24 hours/every day

Walking Safety Escort

in-person Student Patrol or UIC Police campus escort, available 24 hours/every day use app or dial direct 312-996-2830

Work Alone

alert sent to a contact of your choice if you fail to respond to a designated check-in

Safe Commute

Night Ride—a campus shuttle van will give you a ride, available 11 pm–7 am/every day use app or dial direct 312-996-6800

Report a Tip

Call UIC Police—use app, dial direct 312-355-5555 or from a campus phone 5-5555 Report Crime/Submit Tip—use app to report criminal incident, misconduct, or harassment Chat with UIC Police—use app to share information, request assistance, or ask a question Call the National Suicide Prevention Hotline—available 24 hours/every day use app or dial direct 800-273-8255

COVID-19 Safety Protocols at UIC

Face Masks: Masks must be worn at all times by all students, faculty, and staff while on campus, whether in or out of class, in all offices, on all pathways, and inside and outside of all buildings, in accordance with University policies. If you do not wear a mask, you will be asked to leave the classroom and will not be allowed back in class unless or until you wear a mask. Eating and drinking is not allowed in classrooms.

Social Distancing: We all must maintain appropriate social distancing at all times, whether in or out of class, in all offices, on all pathways, and inside and outside of all buildings. Oncampus classes are being held in classrooms that are large enough to maintain a minimum physical distance of 6 feet (or two arm's length) between people; we will implement assigned seating to ensure social distancing is observed and also to make contact tracing easier if there is an incident of COVID-19 infection in our class.

Hand Washing/ Sanitizing: Everyone is expected to wash or sanitize their hands before class, either by using personal sanitizer or by using one of the sanitizer dispensers located on campus. Please remember to wash your hands with soap for 20 seconds or more. If using hand sanitizer, please remember it should be at least 60% alcohol and you should rub your hands together until dry.

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Onine Course Communication Guidelines (Netiquette)

Be mindful of different cultural and linguistic backgrounds, as well as different political ideologies and religious beliefs.

Use good judgment when composing your written responses. Swearing and profanity should be avoided. Also consider that slang terms can be misunderstood or misinterpreted.

Be careful using all capital letters when composing your written responses. This can be considered "shouting" on the Internet and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read your message.

Be respectful of others' views and opinions.

Be careful when using acronyms. If you use an acronym it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that you can use the acronym freely throughout your message.

Use good grammar and spelling in written communications.

In emails, always identify yourself and what class and section you are in. It is a good practice to put your course and section in the subject line. This helps your instructor identify courserelated emails.

Privacy Notification & Video Recording Policy of Synchronous Class Sessions

We will be recording the class sessions, or portions of the class, for students who are unable to attend synchronously. The recording feature for others is disabled so that no one else will be able to record this session through Zoom, Blackboard Collaborate, Webex, or Echo360. Recording by other means is not permitted. The recorded class sessions will be posted on our Blackboard class website unless otherwise notified.

If you have privacy concerns and do not wish to appear in the recording, turn OFF your video and notify me in writing (via email) prior to the next class session. If you prefer to use a pseudonym instead of your name, please let me know what name you will be using, so that I can identify you during the class session. If you would like to ask a question, you may do so privately through the chat feature by addressing your question to me or your TA only (and not to "everyone"), or you may contact me or your TA by another private method, which we will agree upon in advance of class. If you have questions or concerns about this video recording policy, please contact me before the end of the first week of class.