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CS4480Y - Game Development Project Course Outline

The University of Western Ontario
London, Canada

Department of Computer Science

CS4480Y - Game Development Project

Course Outline - Fall 2023

Course Description

Developing games of commercial scale and quality is an incredibly challenging task, whether the game is intended for entertainment or serious applications. The purpose of this course is to provide practical experience in the various aspects of the development of a large scale game project. Through a group project, this course will examine the concepts, theories, tools, technologies, and techniques for code and content generation for modern games.

Lecture Hours

11:30am - 12:30pm, Thursdays, MC-17

Prerequisites: Registration in the Minor in Game Development

Corequisites: Computer Science 4482A/B, 4483A/B

Antirequisites: Computer Science 3380F/G/Z, Computer Science 4460Z, Computer Science 4470Y, Computer Science 4490Z.

Note: *Unless you have either the prerequisites for this course or written special permission from your Dean's Designate (Department/Program Counsellors and Science Academic Counselling) to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.*

Instructor Information

One instructor will be managing and supervising the project aspects of this course:

Instructor: Michael Katchabaw
Office: Consulting via [Zoom](#)
Office Hours: 1:30pm - 2:30pm, Tuesdays and Thursdays
E-Mail: katchab@csd.uwo.ca
Phone: Western extension 84059

About the Lectures

Although the intent is for this course to be delivered in person, should any university-declared emergency require some or all of the course to be delivered online, either synchronously or asynchronously, the course will adapt accordingly. The grading scheme will not change. Any assessments affected will be conducted online as determined by the course instructor.

Course Texts

There are no required texts for this course, but one reference is recommended on the game development process, and may be available for purchase from the Book Store at Western:

- [A Playful Production Process For Game Designers \(and Everyone\)](#). First Edition, by Richard Lemarchand, published by MIT Press, 2021.

To assist with more technical aspects of project development, there are many excellent references available online. While printed books are also available from many retailers, they quickly get out of date, and so it is difficult to require you to purchase one.

References and suggested readings may be provided throughout the course as the project requires them. Please check back to the course website for updates and more information.

Lectures

Lecture time will not be used for the delivery of lectures in the traditional sense. Instead, this time will be primarily used for organizing and tracking the status of project deliverables and milestones in the course. Guest lecturers from the games industry and subject matter experts may be brought in on occasion, and this time may be used for their talks. It is important to note that there may not be class held on every Thursday throughout the year; further details on class scheduling will be posted on the course website.

Course Website

The CS4480Y website is accessible through OWL at <http://owl.uwo.ca>. Class and project information will be posted on this website on a fairly regular basis. You are responsible for reading this information frequently.

If students need assistance with the course OWL site, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Computing Facilities

Each student will have access to computing facilities administered by the Department of Computer Science and/or Western University. In accepting their accounts, students agree to abide by the Department's Rules of Ethical Conduct. During this course, we may also make use of cloud infrastructure provided either by Western or by Amazon; details on this will be discussed in class.

Note: *After-hours access to Computer Science lab rooms is by student card. If a student card is lost, you will need to visit the Student Services Building to obtain a replacement. As of 2023, the cost for a replacement card is \$35. More information is available at https://registrar.uwo.ca/services/western_onecard_and_photo_standards.html. Students enrolled in Computer Science courses will be granted access to the labs within 7 days of enrolment. If you do not have access to the labs after 7 days, please open a ticket with Science Technology Services at <https://helpdesk.sci.uwo.ca>.*

E-Mail Contact

We will occasionally need to send e-mail messages to the whole class, or to students individually. In accordance with policy (https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf), the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Student Evaluation

Grades will be based on group project work, divided across four milestones throughout the course, with each requiring different deliverables and work to be completed. If for any reason the project schedule given below cannot be adhered to, the project marks will be prorated accordingly.

Projects

Milestones (tentative)

- Milestone 1: 15%, due October 12, 2023
- Milestone 2: 25%, due December 8, 2023
- Milestone 3: 20%, due February 15, 2024
- Milestone 4: 40%, due April 8, 2024

About the Milestones

- Generally, each milestone will require the completion or progress towards a number of deliverables, as well as either oral or written reporting on work completed.
- Descriptions of deliverables for the project milestones will be posted on the course website as they become available, and discussed in class.
- Any changes, updates, and clarifications to deliverables will also be posted on the website. It is your responsibility to monitor these pages closely.
- Milestones will involve programming, documentation, and presentation or class discussion appropriate to the tasks at hand.
- While the project is a group project, grades will be assigned to each student based on both group and individual performance at each milestone. Individual performance will be based on a number of factors, some of which may include peer evaluations, contributions made during class, repository logs, individual reports of work completed, and so on.

Submission of Milestones

- All milestone deliverables will be submitted electronically. Details will be given in the milestone descriptions.
- Documentation elements of project milestones may also require a paper submission. If this is necessary, details of this will also be given in the milestone descriptions.
- Presentation or oral reporting related to project milestones will occur during class, as discussed in the milestone descriptions.
- Your project milestones are expected to be your own work. On occasion, you may be allowed to make use of code or resources from an outside source. Check with the instructor if you are uncertain about the places in which you can use code written by another person. If you use code from an outside source when you are not explicitly allowed to by the milestone description, or use a source other than what is explicitly designated in the description, you may be charged with an academic offence.

Late Submissions

- Late milestone submissions will not be accepted.
- Extensions will be granted only by the course instructor. As discussed above, if you have serious medical or compassionate grounds for an extension, you **must** take supporting documentation to the Academic Counselling unit of your faculty, who will contact the instructor.

Academic Consideration for Student Absence

If you are unable to meet a course requirement due to illness or other serious circumstances, academic consideration may be granted. In all such circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible. For further information, please consult the University's policy on academic consideration for medical illness at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration.pdf. The Student Medical Certificate is available at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Student absences impacting group project milestones and completion will be handled on a case-by-case basis to accommodate the student as best as possible while minimizing the impact on the rest of the group.

Accommodation Policy

Students with disabilities work with Accessible Education which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf.

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at:

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Ethical Conduct

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Plagiarism: Students must write their essays and assignments in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence. Please note, however, that students are not allowed to make use of the work of others unless explicitly instructed to do so in the description of an assignment.

All projects are to be exclusively your own work. While project work requires you to work in teams, each team is expected to act individually. You may discuss approaches to problems among yourselves; however, the actual details of the work (coding, documentation, etc.) must be an individual effort. Incidents that are judged to be the result of academic dishonesty will be reported to the Undergraduate Chair. The selection of penalty to be applied is up to the Chair, with consultation of the instructor.

The standard departmental penalty for assignments that are judged to be the result of academic dishonesty is, for the student's first offence, a mark of zero for the assignment, with the offence reported to the Dean of your home faculty. You are responsible for reading and respecting the Department of Computer Science's policy on Scholastic Offenses, and Rules of Ethical Conduct.

The University of Western Ontario uses software for plagiarism checking. Students may be required to submit their written work and programs in electronic form for plagiarism checking.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com/>).

Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html. To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at: http://academicssupport.uwo.ca/accessible_education/index.html if you have any questions regarding accommodations.

Learning-skills counsellors at the Student Development Centre (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Additional student-run support services are offered by the USC, <https://westernusc.ca/services/>.

The website for Registrarial Services is <http://www.registrar.uwo.ca>.