



CMPUT 250: Computers and Games

<https://eclass.srv.ualberta.ca/course/view.php?id=18048>

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Fall 2014

Abstract

A computer game is the culmination of creative efforts of many different artistic and technical disciplines, integrated through the capabilities of the computer. Computer games are a new art form. They have changed the way we think about traditional activities. For example, role playing games are a new vehicle for story-telling; the reader becomes an active participant that influences the story.

Instructors from various University of Alberta departments are recruited to lecture in the course. Industry partners, such as game designers from BioWare Corp., offer lectures as well, providing students with practical advice on the completion of their projects, as well as feedback on the students' productions.

Students in the course come from various faculties on campus, each bringing a variety of skill sets. While students from different faculties may often take other courses together, rarely, if ever, are they required to work together in a collaborative manner where their disparate skills are needed to complete a term-length project. CMPUT 250 provides the students with such an opportunity. Each team of students builds a complete, self-contained game with a commercial game engine. They refine their ideas through the study and application of design, storytelling, art, scripting, and music, which ultimately leads to a vertical slice prototype, a beta version, and final release. The course culminates in an annual award ceremony where games from both terms compete in several categories: <http://cmput250.org>

1 Course Objectives

This course pursues the following objectives:

1. gaining a hands-on experience of developing video games as a multi-disciplinary team project;
2. discussing the role of games in our society;
3. considering games as a form of art and, in particular, as a story-telling medium;
4. reviewing the history of video games and the accompanying technology.

2 Course Structure

The class will have two lectures per week – Tuesdays and Thursdays, 11am to 12:20pm – between September 4th and December 2nd, 2014. Our lecture room is GSB 553. There will also be two hours of lab time per week, with slots to be scheduled. The office hours are in ATH 3-38, by appointment – contact Prof. Vadim Bulitko at bulitko@ualberta.ca

2.1 Lectures

Lectures will be taught by a number of instructors from various departments at the University of Alberta as well as from BioWare. *Attendance is required* and will be marked as a part of your in-class participation which is worth 3% of your term mark. A tentative lecture schedule is available on the eClass site. It is subject to change throughout the term.

2.2 Labs

Several two-hour lab slots will be reserved in CSC 1-05. You will be assigned to one of the slots. The lab serves multiple purposes. First, it is the place for you to work on your term project (i.e., building your game). Second, a number of marked labs will introduce game development tools for you. Third, the lab exam will be held there. Fourth, several marked milestones related to your game will be held in the lab as well.

During scheduled lab slots, we will have teaching assistants staff the lab and help you with your work. You are also welcome to work in the lab outside of the reserved time slots *but* then students from other scheduled classes/lab slots will have priority in the use of the lab.

Your submissions for Labs 1-6 are to be walked through with a TA in the lab slot you are assigned to. You should be able to answer any TA's questions related to the submission to demonstrate your understanding of your submission. Late lab submissions incur a penalty of 10% per day.

2.3 Term Projects

The term project is to build a complete 30-minute-long video game. This will be done by working in teams of six. The guidelines for team formation as well as associated milestones are provided on the course website.

Please note that dropping the course after the teams are formed will leave your team short of a person, likely affecting the resulting game and the team experience. So if you need to drop the course, please do so during the first week so that there is a chance to find a replacement for you.

3 Marking

Final grades will be assigned at the end of the term once cumulative term marks are available.¹ This will be done by setting cut-off points (e.g., an 'A' is at least $x\%$ of the maximum possible term mark). The cut-offs are absolute and not based on any *a priori* defined distribution/curve. You are not in competition with other students for your marks/grade.

Your mark depends on your and your team's performance. Specifically, you share your team's mark for the components marked as 'team' in Table 1. Note that your mark for the team components

¹Grades are unofficial until approved by the Department and/or Faculty offering the course.

of the course can be reduced if your contribution to the game production is noticeably less than that of the other team members. We closely monitor the teams for load balance during the term.

You do not share your mark for the milestones marked as ‘individual’ in the table. Term marks are computed as a weighted sum of the several components listed in Table 1.

Table 1: Marked Components of CMPUT 250.

Component	Weight	Date/Time	Weight shift with EA	Type
Milestone 1: Team Formation	1%	Sep 9 @ 9pm	n/a	team
Milestone 2: Concept Presentation	5%	Sep 18 @ 11am	n/a	team
Milestone 3: Design Document	5%	Sep 24 @ 9pm	n/a	team
Milestone 4: Walkthrough w/ EP	5%	labs of Oct 6 week	n/a	team
Milestone 5: Walkthrough w/ HI	5%	labs of Oct 13 week	n/a	team
Milestone 6: Beta Release	12%	Nov 7 @ 6pm	n/a	team
Milestone 7: Beta Evaluation	5%	Nov 14 @ 9pm	n/a	team
Milestone 8: Game trailer	5%	Nov 27 @ 11am	n/a	team
Milestone 9: Gold release	20%	Dec 2 @ 6pm	n/a	team
Milestone 10: Course evaluation	2%	Dec 3 @ 9pm	lab exam	individual
Labs	10%	labs Sep 8 - Oct 24	lab exam	individual
Lab exam	22%	labs of Oct 27 week	labs	individual
In-class participation	3%	all lectures	n/a	individual

If you miss a marked component, you will have to contact the instructor *as soon as possible* and explain what happened. You may then apply for an excused absence (EA) which, if granted, will shift the weight of the component as listed in the table. Misrepresentation of facts to gain an EA is a serious breach of the Code of Student Behaviour.

4 Course Prerequisites

A strong interest in video games.

5 Past Evaluative Materials

Past lab exams and certain other milestone deliverables will be made available to the students. Certain games made in CMPUT 250 in the past will be available in the lab.

6 Course Policies

Teamwork is required on game development. While the work is to be divided among team members, every team member must have an understanding of any part of the project (although does not have to be an expert on that part). Your labs, lab exam and some other milestones are, on the other hand, individual work (“solo effort”) with no collaboration allowed. Each milestone listed in the table above mentions whether it is a team or individual effort.

Anything that you use in your work and that is not your own creation must be properly cited by listing the original source. Failing to cite others’ work is plagiarism and will be dealt with as an academic offence.

In development of your game you may not use any materials (e.g., music, pictures, 3D models, code, etc.) for which you do not hold the copyright or do not have them licensed for inclusion in your game (e.g., an appropriate Creative Commons license or a written permission from the copyright holder). We have prepared a collection of art assets cleared for CMPUT 250 use and will make it available to you.

This course is governed by CS Department policies. You are required to familiarize yourself with them: <https://www.cs.ualberta.ca/resources-services/policy-information/department-course-policies>

7 Academic Integrity

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (<http://www.governance.ualberta.ca>) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

All forms of dishonesty are unacceptable at the University. Any offence will be reported to the Associate Dean of Science who will determine the disciplinary action to be taken. Cheating, plagiarism and misrepresentation of facts are serious offences. Anyone who engages in these practices will receive at minimum a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. As well, in the Faculty of Science the sanction for cheating on any examination will include a disciplinary failing grade and senior students should expect a period of suspension or expulsion from the University of Alberta.

For further information see <http://www.tie.ualberta.ca>

8 Textbooks

There are no required textbooks. Any instructional materials will be provided during the term.

9 Contact

Head instructor, Prof. Vadim Bulitko: bulitko@ualberta.ca

10 Additional Information

Students who require accommodation in this course due to a disability are advised to discuss their needs with Specialized Support and Disability Services (2-800 Students Union Building). Students who require additional help in developing strategies for better time management, study skills or examination skills should contact the Academic Support Centre (2-300 Students Union Building).

Disclaimer: any typographical errors in this course syllabus are subject to change and will be announced in class.