The University of Western Ontario London, Canada

Department of Computer Science

CS4490Z/4460Z - Thesis/Bioinformatics Thesis

CS3380F/G/Z - Project

Course Outline - Fall 2018

Lecture Hours: 8:30 - 9:30am, Mondays, MC 320

Course Instructor

Instructor: Nazim Madhavji
Office: MC 381
Office Hours: emails, anytime
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Course Description

CS4490Z/4460Z

(For CS3380F/G/Z, please see later below)

This course provides students with an opportunity to work on a project outside a particular course setting, with a faculty member at Western University as supervisor. The supervisor can be from the Dept. of Computer Science or from another Department (usually) within Western. The topic of the project can be in any area of computer science for CS4490Z theses (and can include applications from subjects outside computer science, e.g., engineering, law, and social sciences). A project from a local company may be entertained on a case-by-case basis. Those topics that are in the health domain are meant for students enrolled in bioinformatics (CS4460Z) theses. Projects may be done individually or in groups.

The objective of the course is to give the student an opportunity to undertake a project

which is less structured than assignments and/or which requires the student to apply knowledge and skills learned from many different courses. It is also an opportunity for the student to demonstrate skills in independent study and research.

The suffix Z denotes that this course is an essay course, i.e., it has a significant writing component. Students will submit intermediate reports as well as a final report on their project. Each student will also give a presentation of 20 - 25 minutes on their work.

Prerequisites

CS4490Z:
(2.0 courses from: Computer Science 3305A/B, 3307A/B/Y, 3331A/B, 3340A/B, 3342A/B, 3350A/B; plus registration in the Honors Specialization in Computer Science or the Combined Honors BSc Computer Science/Juris Doctor (JD) Program) or (2.0 courses from: Computer Science 3305A/B, 3307A/B/Y, 3319A/B, 3331A/B, 3340A/B, 3357A/B; plus registration in the Honors Specialization in Information Systems)

CS4460Z:
Computer Science 3331A/B and 3340A/B; plus 1.5 courses from: Biochemistry 2280A, Chemistry 2213A/B,
Computer Science 3319A/B, 3346A/B; plus registration in an Honors Specialization in Bioinformatics.

Antirequisites: Computer Science 3380F/G/Z, 4460Z (if taking 4490Z), 4470Y, 4480Y, 4490Z (if taking 4460Z)

Note: Unless you have either the prerequisites for this course or written special permission from your Dean 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.

CS3380F/G/Z
This is a supervised study involving a research paper, or the design of or development of a software project.

Antirequisite(s): Computer Science 4460Z, 4480Y, 4490Z.
Prerequisite(s): Permission from the department, plus: Computer Science 2212A/B/Y and registration in the Specialization or Major in Computer Science. To be permitted into this course, the student must have found a topic and a willing departmental supervisor before the end of the add period.

Course Texts

There are no required texts for this course. One suggested reference is available in the book store and the Taylor   Library:

- Dawson, Christian W., Projects in Computing and Information Systems: a Student's Guide, Second Edition; Pearson Education Limited, 2009

Course Webpage and OWL

The CS4490Z/CS4460Z/CS3380F/G/Z webpage is accessible through the departmental website. Class and project information and announcements will be posted on OWL. You are responsible for reading this information on a regular basis.

Computing Facilities

Each student will have access to an account on the Computer Science Department senior undergraduate computing facility, GAUL.   In accepting the GAUL account, a student agrees to abide by the department's Rules of Ethical Conduct

Note: After-hours access to certain Computer Science lab rooms is by student card. If a student card is lost, a replacement card will   no longer open these lab rooms, and the student must bring the new card to the Systems Group. Likewise, if a student card ceases to provide access where it should, it should be brought to the Systems Group as   well

E-Mail Contact

We may need to send e-mail messages to the whole class, or to students individually. E-Mail will be sent to the UWO e--mail address assigned to students by Information Technology Services (ITS), i.e. your e-mail address @uwo.ca. It is each student's responsibility to read this e-mail on a frequent and regular basis, or to have it forwarded to an alternative e-mail address if preferred. See the ITS website for directions on forwarding e-mail.

However, you should note that e-mail at ITS (your UWO account) and other e-mail providers may have quotas or limits on the amount of space they can use. If you let your e-mail accumulate there, your mailbox may fill up and you may lose important e-mail from your instructors. Losing e-mail that you have forwarded to an alternative e-mail address is not an excuse for not knowing about the information that was sent.

Wherever you receive e-mail, be sure to configure your spam filter to allow e-mail from the instructor's e-mail address given above. Otherwise, important messages could get trapped by your spam filter and missed. This is also not an excuse for not knowing about information that has been sent

Classes Schedule and Projects

There will be classes only on the following dates. Other classes may be arranged as necessary, but it is anticipated that most of the communication between students and the course administrator will be done by email or in person.
Due dates for various deliverables and the weights are indicated in the table below.

(Note: schedule subject to change)

Date	Class	Due	Weight %
10 Sept.	Course introduction		
17 Sept. Or as announced	Project presentations by supervisors		
+7 days		Topics & Supervisor Chosen	
24 Sept.	Thesis proposals (What and how …)		
+ 4 wks: 22 Oct.		Thesis proposal: (**CS4490Z/CS4460Z**) Proposal: (**CS3380F/G/Z**)	5
+ 4 wks: 19 Nov		Progress Report 1	5
3 Dec.	Term-end meeting: any issues?		
14 Jan	Start of new term		
18 Feb		Progress Report 2	10
8 Apr		Final Report***	55
TBA		Presentation***	25
11 Apr	End of Term		

*** <u>**EXTREMELY IMPORTANT**</u>: **Please note that final report and presentation dates are FIXED without exception (only university exception applies). These are firm dates. Please make sure that you deliver your thesis and presentation on time (regardless of your situational and geographical constrains), else you will receive a zero grade for the affected item.**

Late Submissions

- Late submissions will **<u>not be accepted</u>**. Lateness will be determined by OWL records. In other words, submit what you have ON TIME. This is a serious thesis submission, not an ordinary course assignment.

About the Project Deliverables

- Descriptions of the various project deliverables 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.

Submission of Deliverables

- **IMPORTANT**: All project deliverables will be submitted simultaneously to::
  (i) the supervisor **and**
  (ii) the course administrator on the OWL site.

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. 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 an additional penalty equal to the weight of the assignment also being applied. 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/).

Accessibility Statement

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for any specific question regarding an accommodation.

Support Services

Learning-skills counsellors at the Student Development Centre (http://www.sdc.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 counseling.

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

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

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