

The University of Western Ontario London, Canada

## Department of Computer Science

# CS4490Z/4460Z - Thesis/Bioinformatics Thesis

## CS3380F/G/Z - Project

### Course Outline - Fall 2017

**Lecture Hours:** 8:30 - 9:30am, Mondays, MC 316

#### 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 of the Department as supervisor. The topic of the project can be in any area of computer science for CS4490Z theses, but must be related to bioinformatics for CS4460Z theses. Projects may be done individually or in groups.

It is possible for students to undertake projects for faculty in other departments, with local companies, or for other University units. In such cases, a student may have an external supervisor but must also have a Department of Computer Science faculty member willing to act as a co-supervisor.

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 a number of 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 Administrator**

**Instructor:** Nazim Madhavji

**Office:** MC 381

**Office Hours:**

Mondays: 9.30 am – 10.30am

12.30 pm – 1.30 pm

**E-Mail:** madhavji <at> gmail <dot> com

### **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 Website**

The CS4490Z/CS4460Z/CS3380F/G/Z website is accessible directly 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

### **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 will occasionally 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 %
11 Sept.	Introduction Topic presentation		
18 Sept.	Topic presentation (if any) Student-topic assignment issue (Or, Overview of thesis proposals (What and how ...))		
25 Sept.	Overview of thesis proposals (What and how ...)		
16 Oct.		Thesis proposal: <b>(CS4490Z/CS4460Z)</b> Proposal: <b>(CS3380F/G/Z)</b>	5
13 Nov		Progress Report 1	5
4 Dec.	Term-end meeting: any issues?		
8 Jan	Start of new term		
15 Jan	TBA	Progress Report 2	5
12 Feb	TBA	Progress Report 3	5
2 Apr	TBA	Final Report	55
TBA		Presentation	25
11 Apr	End of Term		

## 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.

## Late Submissions

Late submissions will **not be accepted**. Lateness will be determined by OWL records. In other words, submit what you have ON TIME.

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.

## 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](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 Offences 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](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>.