

### COURSE OUTLINES (SYLLABI) FOR UNDERGRADUATE COURSES

## CS2209A Course Outline APPLIED LOGIC FOR COMPUTER SCIENCE, Fall 2023

## **1.** Course Information

### **Course Information**

The course is an introduction to applied logic for computer science. We will cover propositional and predicate logic; representation of static and dynamic properties of real-world systems; logic as a tool for representation, reasoning and calculation; logic and programming, and so on.

### **List of Prerequisites**

Either 1) Computer Science 1027A/B, Computer Science 1037A/B, Computer Science 2101A/B, Computer Science 2121A/B or Digital Humanities 2221A/B in each case with at least 65%, and 1.0 course with at least 60% in each from: Applied Mathematics 1201A/B, Numerical and Mathematical Methods 1412A/B, Numerical and Mathematical Methods 1414A/B, Calculus 1000A/B, Calculus 1301A/B, Calculus 1500A/B, Calculus 1501A/B, Mathematics 1600A/B, the former Applied Mathematics 1412A/B, the former Applied Mathematics 1414A/B, the former Applied Mathematics 1413; or 2) Integrated Science 1001X with at least 60%.

Unless you have either the requisites 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.

## 2. Instructor Information

<u>Dr. Charles Ling</u>, Professor of Computer Science Email: <u>charles.ling@uwo.ca</u> (preferred way of contact). Students must use their Western (@uwo.ca) email addresses when contacting instructors and TAs. Office MC 374, x 83341 Office hour: TBD

## 3. Course Schedule

Key Sessional Dates:

- Classes begin: September 7, 2023
- Fall Reading Week: October 30 November 5, 2023
- Classes end: December 8, 2023
- Exam period: December 10 22, 2023

LECTURE: Tuesday 9:30 AM - 11:30 AM, Thursday 9:30 AM - 10:30 AM, at NSC-1

#### Tutorials:

002	TUT	4902	Mon	3:30 PM	4:30 PM	NCB-293
003	TUT	4903	Mon	4:30 PM	5:30 PM	NCB-295
004	TUT	4904	Thurs	4:30 PM	5:30 PM	NCB-295
005	TUT	4905	Wed	2:30 PM	3:30 PM	NCB-293
006	TUT	4906	Mom	5:30 PM	6:30 PM	NCB-293
007	TUT	5454	Wed	4:30 PM	5:30 PM	SH-3305
008	TUT	11937	Wed	5:30 PM	6:30 PM	SH-3315

#### **Contingency plan**

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.

## 4. Course Materials

#### Textbook:

Introduction to Logic, By Prof. Harry Gensler. It is available online (free) for UWO students. Read the book online <u>here</u>. The PDF version can also be found <u>here</u>.

A great advantage of using this book is that there is an excellent free software called <u>LogiCola</u> by the author of the textbook for practice and exercise. Additional materials will be posted and used in the course.

Students are responsible for checking the course OWL site (http://owl.uwo.ca) on a regular basis for news and updates.

In the course OWL site, you will find a Homepage for this course. It contains links to ALL course resources (lecture notes, Assignments, etc). Please check the Homepage often.

In addition, when the TAs and instructor receive multiple emails about the same/similar questions, we will send out an Announcement via OWL, instead of replying to every email. Please review Announcements in OWL regularly.

Tutorial sessions are Q&A sessions run by TAs. Attending Tutorial sessions are not mandatory and no marks are given to them. Please try to go to your chosen tutorials at least for the first few weeks. If you need to go to the Tutorial sessions, please be there in the first half hour of the session. TAs may leave if no students come after the first half an hour.

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.

# 5. Methods of Evaluation

- Four assignments: the first one is 2%, and then 6% for the remaining three
- Midterm (in-class): 30%, Oct 24, 2023
- Final Exam (3-hour): 50% (covering the whole term). Date/room TBD
- For both midterm and final exams, students can bring a one-page 8x11 "cheat sheet" (double-sided, written or printed). The exam will be closed book, with no permitted access to electronic devices. The exam is to be completed individually, with no assistance from others.

All assignments are due by 11:55 pm of the due date, submitted via OWL. The four assignment due days are: 9/27, 10/18, 11/15, 12/6

Late Assignment Policy of assignments:

Each day (24 hours) is 10% off (e.g., if late for 2 days, 20% off), until 10 days have passed and the assignment will be worth 0.

### Accommodated Evaluations

Generally, no extensions to assignments will be given (except for lengthy illness, or other compassionate grounds). In those cases, the course instructor can grant the extension. The instructor may also ask you to take supporting documentation to the office of the Dean of your faculty, who will contact the instructor.

If you must miss the Midterm Exam for a valid reason, you must present valid documentation to the Dean's office and get approval there. These students must have notified the course

instructor and filed documentation with their Dean's office prior to the Midterm Exam. A make-up midterm will be arranged for these students.

If for any reason the assignment schedule given below cannot be adhered to, the assignment marks will be prorated.

## 6. Student Absences

For work/exams totalling 10% or more of the final course grade, 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 medical illness policy 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.

### **Absences from Final Examinations**

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

# 7. Accommodation and Accessibility

### **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.

### **Accommodation Policies**

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

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/Academic Accommodation\_disabilities.pdf.

# 8. Academic Policies

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

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 their official university address is attended to in a timely manner.

**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.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the 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).

In the event of health lock-down, tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

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https://remoteproctoring.uwo.ca.
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## 9. 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://academicsupport.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/.