

COMPSCI 1020A Course Outline Fall 2026

1. Course Information

Computer Science 1020A – Foundations of Computer Science

Course Lecture Times and Location

Monday	9:30-11:30 AM		
Wednesday	9:30-10:30 AM		

List of Prerequisites

- (Ontario Math MHF4U and Ontario Math MCV4U) or MATH 0110.
- Registration in the Computer Science Program or completion of first-year requirements.

Unless students have either the prerequisites for this course or written special permission from the Department of Computer Science to enroll in it, they may be removed and withdrawn from this course in accordance with university policy. This may be done after the add/drop deadline of the academic term, and the course will be marked as withdrawn (WDN) on their academic record. This decision may not be appealed.

2. Instructor Information

Instructors	Email	Office	Office Hours
Dr. Mohsen Mollahajiaghaei			

Notes on contacting me:

- You must use your Western (@uwo.ca) email addresses when contacting me.
- Emails Responses are not guaranteed on the weekend or in the evening.
- Any email sent to an instructor SHOULD say CS1020A in the subject line. This helps us categorize your email as “not spam” and give it a higher priority.

Information on contacting course teaching assistants will be available on course website after the course begins.

3. Course Syllabus, Schedule, Delivery Mode

Course Topics: The topics may be subject to change. The order of the topics may be adjusted.

- Introduction to Set Theory: sets and basic operations.
- Introduction to Logic: introduction to basic logic including connectives, truth tables, and quantifiers.
- Number Systems: binary, decimal, and hexadecimal, and their importance in computer algorithms and data representation.
- Techniques of Counting: basics of combinatorics, learning to count.
- Operations, and Functions: algebraic concepts and functions.
- Proof fundamentals: how to construct and validate proofs, focusing on logical reasoning and analytical methods.
- Probability Theory: basic probability concepts, including conditional probability and Bayes' theorem.
- Computer Science roadmap: An introduction to the field of computer science and its various subdisciplines and applications.

Important Dates

Classes begin: September 9, 2026

Fall Reading Week: October 10 – 18, 2026

Classes end: December 9, 2026

Exam period: December 11 – 22, 2026;

4. Course Materials

Textbook

There is a required digital textbook, Discrete Mathematics (ZyBooks) for this course. The price for the ZyBook is \$75 Canadian.

You can get it from bookstore or:

To register for the ZyBook:

1. Sign up or sign in at learn.zybooks.com
2. Enter ZyBook code: Will be announced
3. Subscribe to the book.

You must use your Western email address and the same full name as in your Western profile.

Zybooks: There are weekly ZyBooks readings with activities that must be completed. It is recommended that you complete the exercises to stay on top of the material and leave yourself time at the end of the term to avoid having to do it all at once.

All other course material will be posted to OWL Brightspace: <https://westernu.brightspace.com/>

Students are responsible for checking the course OWL Brightspace site regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

If students need assistance with the course OWL Brightspace site, they can seek support on the [OWL Brightspace Help](#) page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at [REDACTED] or [REDACTED].

Technical Requirements

You must have an internet connected device to access course materials and assignments via OWL. An internet connected device (laptop, phone or tablet) is recommended but not required for class.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be calculated as listed below:

Assignments (3 assignments, 6% each)	18%
Quizzes (7 quizzes, 2% each)	14%
Tests (2 tests, 15% each)	30%
Final Exam	38%

Quizzes: Quizzes are held in-class and will be 30 minutes in length. The following tentative topics are not final. Please consult the information provided in class for the final topics for each quiz. This course has 9 quizzes, and the 7 quizzes with the highest marks are counted towards your final grade. Each of the 7 quizzes that contribute to your grade are worth 2%. If more than 2 are missed for a valid reason (for those students with AE accommodations) the weight will be shifted to the final exam.

Quiz	Tentative topics
Quiz 1	Set theory
Quiz 2	Logic
Quiz 3	Logic
Quiz 4	Counting
Quiz 5	Numeration
Quiz 6	Functions and Relations
Quiz 7	Proofs
Quiz 8	Proofs
Quiz 9	Probability

Assignments: Assignments are due at 11:59 PM on the due dates. The assignments must be submitted through gradescope. Topics in each assignment will be finalized based on the pace of the class. Each assignment is worth 6% of your final grade.

Assignments are to be done individually, not in groups. The submitted assignments should be your own work. Do not:

- Show any part of your solutions to another student
- Send any part of your solutions to someone
- Upload any part of your solution to a publicly accessible location.
- Receive or accept any part of anyone else's solutions.
- Use a generative AI tool to construct solutions to the assignment.
- Pay someone else to do the assignment for you

Any of the above actions constitute a violation of the academic integrity guidelines and may result in disciplinary action.

Late assignments: Late submissions may be submitted up to 2 days after the deadline without penalty. After 2 days, assignments will not be accepted and will be marked as 0. This does not account for accommodations. No accommodated assignments will be accepted more than one week after the assignment deadline – any accommodations that extend more than one week after the assignment deadline will result in the weight of that assignment being moved to the final exam. This is only for students who are officially registered with Accessible Education.

Tests: Tests are held in class and are 60 minutes in length. The following tentative test topics are not final. Please consult with the resources provided in class in the week prior to the test. Each test is worth 15% of your final grade.

Test 1: Monday, Oct 19

Test 2: Monday, Nov 23

There will not be any make-up tests. If you cannot write a test for a valid reason (for those students with AE accommodations), the entire weight of the test will be shifted to the final exam.

If you are given accommodation for one test, then the Final Exam will be worth $38+15=53\%$ of your final grade, while the other test will be worth 15% of your final grade.

If you are given accommodation for both tests, then the final will be worth $38+30=68\%$ of your final grade.

Final Exam: The final exam will be scheduled by the Registrar's Office during the exam period. The final exam will be 3 hours in length. The final exam is cumulative (i.e., covers all material from the course).

All exams are closed book, no calculator, no electronic devices. You will be required to bring your photo ID/student card to both tests and the final exam. The format of the tests and final exam includes a mixture of multiple choice and show-your-work long format problems. They may also include some true/false questions that require you to justify your response.

Information about Missed Coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs*, posted on the Academic Calendar:

https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf,

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person. The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage: https://registrar.uwo.ca/academics/academic_considerations/. All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

Midterms and Tests

This course has 2 midterm tests/term tests and a **cumulative** final exam. There is no makeup test for a missed midterm. If a student misses a midterm, its weight will shift automatically to their final exam grade. If their final exam grade is higher than their midterm grade, their final exam grade will replace the midterm's weight in their overall grade. They do not need to request Academic Consideration for a missed midterm; the reweighing will be done automatically.

The only exception is an early sitting, offered solely for a university-sanctioned schedule conflict (e.g., conflict of two midterms, Varsity competitions) or a religious accommodation that prevents a student from writing the midterm at its scheduled time. If a student requires this accommodation, they must notify their instructor in writing no later than one week before the test. No other circumstance, including illness, qualifies for an early sitting or makeup; these are addressed through the automatic reweighing described above.

Deadlines: The 48-Hour No-Late-Penalty Period

All take-home assignments, and labs with a stated due date include an automatic 48-hour period after the deadline during which students may still submit without a late penalty. For example, if an assignment is due on November 5, they may submit it until November 7 without penalty. After this 48-hour period, no further submissions will be accepted, and students do not need to request Academic Consideration for a missed deadline; their grade for this component will be calculated as described above.

Special Examination

Per university policy, Academic Consideration requests with supporting documentation are required for the final examinations scheduled during official examination periods by the Registrar's Office.

If the student has been approved by the Academic Advising Office to write a Special Examination (SPC) and the final exam is their only outstanding course component, an SPC will be assigned to them and scheduled by the instructor per university policy.

If the student misses their SPC exam and is approved for Academic Consideration, they will be withdrawn from the course without academic penalty. If they experienced extenuating circumstances such as prolonged illness, they may appeal to the Associate Dean (Academic), on a case-by-case basis, for the opportunity to write the final exam the next time the course is offered. An outstanding SPC will reduce their course load for the term in which the exam is deferred, as outlined in the [Definitions of Types of Examinations](#) policy.

If the student misses their SPC exam and Academic Consideration is not approved, or was not requested, they will receive a grade of zero on the exam.

6. Additional Statements

6.1 Religious Accommodation

When a recognized religious holiday either requires a student to be absent from the University, or requires or prohibits an activity that makes it impossible for them to complete an academic requirement scheduled that day, they are entitled to accommodation. No student will be penalized for an absence for religious reasons, and an alternative means of satisfying the requirement will be arranged. This accommodation is provided in accordance with the University's policy on Accommodation for Religious Holidays:

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

The student should submit their requests through the Student Absence Portal (SAP), identifying the conflict and the specific course component(s) affected (e.g., test, midterm, exam).

Midterms and Tests: If a religious observance conflicts with a midterm test, they must submit their request no later than **one week** before the test. Their instructor will arrange an early sitting of the test. As set out above, no makeup test is offered for any other reason; this early sitting is available specifically for this accommodation.

Final Examinations: If a religious observance conflicts with the final exam, the student must submit their request no later than **two weeks** before the exam. Their instructor will arrange a Special Examination to take place no later than one month after the end of the examination period.

Students are responsible for finding out what was covered in any class they miss due to a religious observance, and for taking the appropriate steps to keep up with the course.

If a suitable arrangement cannot be reached between a student and their instructor, they should consult the Undergraduate Chair of the department offering the course, and if necessary, the Associate Dean (Academic) of the Faculty of Science.

For a list of recognized religious observances, please visit the calendars posted on the Equity, Diversity & Inclusion website - <https://www.edi.uwo.ca> (About Us – Resources – Additional Resources – Calendars).

6.2 Academic 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.

6.3 General Academic Policies

The website for Registrar Services is <https://www.registrar.uwo.ca/>.

Use of @uwo.ca email: 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 email address. It is the responsibility of the account holder to ensure that emails received from the University at their official university address are attended to in a timely manner.

Requests for Relief (formally known as “appeals”)

Policy on Request for Relief from Academic Decision:

https://uwo.ca/univsec/pdf/academic_policies/appeals/requests_for_relief_from_academic_decisions.pdf

Procedures on Request for Relief from Academic Decision (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_requests_for_relief_procedure.pdf

Procedures on Request for Relief from Academic Decision (Graduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/graduate_requests_for_relief_procedure.pdf

6.4 Scholastic Offences

Policy on Scholastic Offences:

https://uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_offences.pdf

Procedures on Scholastic Offences (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_scholastic_offence_procedure.pdf

Procedures on Scholastic Offences (Graduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/graduate_scholastic_offence_procedure.pdf

Use of Electronic Devices During Assessments

In courses offered by the Faculty of Science, the **possession** of unauthorized electronic devices during any in-person assessment (such as tests, midterms, and final examinations) is strictly prohibited. This includes, but is not limited to: mobile phones, smart watches, smart glasses, hidden cameras and wireless earbuds.

Unless explicitly stated otherwise in advance by the instructor, the presence of any such device at a student's desk, on their person, or within reach during an assessment will be treated as a scholastic offence, **even if the device is not in use**.

Effective September 2026, the typical penalty for this offence is a failing grade in the course AND a 12-month prohibition on retaking the course.

Only devices expressly permitted by the instructor (e.g., non-programmable calculators) may be brought into the assessment room. It is their responsibility to review and comply with these expectations.

Use of Generative AI Tools

Unless otherwise stated, the use of generative AI tools (e.g., ChatGPT, Microsoft Copilot, Google Gemini, or similar platforms) is **not permitted** in the completion of any course assessments, including but not limited to: assignments, lab reports, presentations, tests, and final examinations.

Using such tools for content generation, code writing, problem solving, translation, or summarization—when not explicitly allowed—will be treated as a **scholastic offence**.

If the use of generative AI is permitted for a particular assessment, the conditions of use will be specified by the instructor in advance. If no such permission is granted, students must assume that use is prohibited. It is the student's responsibility to seek clarification before using any AI tools in academic work.

Use of Software for Assessments

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>).

Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

6.5 Support Services

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

Mental Health Support. 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.

Gender-Based and Sexual Violence. Western is committed to reducing incidents of gender-based and sexual violence (GBSV) and providing compassionate support to anyone who has gone through these traumatic events. If a student has experienced GBSV (either recently or in the past), they can 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 [REDACTED].

Accessibility for Coursework. A student may contact the course instructor if they require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to them. If they have any questions regarding accommodations, they may also contact Accessible Education at http://academicsupport.uwo.ca/accessible_education/index.html

Learning Development and Success. Learning-skills counsellors at Learning Development and Success (<https://learning.uwo.ca>) are ready to help students improve their learning skills. The facility offers 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.

Student Councils.

Student-run support services are offered by the University Students' Council (<https://westernusc.ca>) and the Science Students' Council (<https://www.westernssc.ca>).