

CS 1027A Fall 2026 Course Outline

Computer Science Fundamentals II

1. Course Information

Lecture Schedule (all lectures held in WSC 55)

Mondays	3:30-5:30pm
Wednesdays	3:30-4:30pm

Lab Schedule (all labs held in [REDACTED])

Section 003	Fridays	12:30-1:30pm
Section 004	Fridays	1:30-2:30pm
Section 005	Fridays	9:30-10:30am
Section 006	Fridays	2:30-3:30pm
Section 007	Thursdays	3:30-4:30pm
Section 008	Thursdays	4:30-5:30pm
Section 009	Thursdays	5:30-6:30pm
Section 010	Thursdays	6:30-7:30pm

List of Prerequisites

Computer Science 1025A/B, Computer Science 1026A/B, Data Science 1200A/B, or Engineering Science 1036A/B (in each case with a mark of at least 65%). You cannot do either course concurrently with this course.

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course or written special permission from the Department of Computer Science to enroll in it, they may be removed and withdrawn from this course in accordance with university policy. This may be done after the add/drop deadline of the academic term, and the course will be marked as withdrawn (WDN) on their academic record.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

Instructor and Course Coordinator

Bryan Sarlo

Email: [REDACTED]

Office: [REDACTED]

Students must use their Western (@uwo.ca) email addresses when contacting their instructors or TAs. Include the course code (CS1027) in the subject line of emails you send regarding this course.

Email will be responded to as soon as possible, but in general, responses are not guaranteed on evenings and weekends.

Instructor Office Hours: Mondays 12pm-1pm and Wednesdays 12pm-1pm in [REDACTED]

TA Office Hours TBD

3. Course Syllabus, Schedule, Delivery Mode

Course Description

A continuation for Computer Science 1026A/B. We will study data organization and manipulation, object-oriented principles, abstract data types and their implementations in Java, lists, stacks, queues, trees, recursion, file and memory organization.

Course Learning Outcomes

- Program in an object-oriented language, namely Java
- Create classes and use inheritance for creating sub-classes
- Identify and implement arrays and linked data structures
- Implement and use abstract data types, i.e. stacks, queues, lists, and trees
- Debug code and use exceptions to handle bugs gracefully
- Identify the different parts of memory during the execution of a Java program
- Program algorithms from pseudo-code

Lecture Topics

- Object-Oriented Programming Principles
- Linked Data Structures
- Inheritance
- Exceptions and Debugging
- ADTs, Interfaces, and Generics
- Stacks, Queues, and Lists
- Recursion and Memory Management
- Trees
- Sorting

Key Sessional Dates

Classes begin: September 9, 2026

Fall Reading Week: October 10 – 18, 2026

Classes end: December 9, 2026

Exam period: December 11 – 22, 2026

Lab Schedule

Lab #	Week
Lab 1	Sept. 21 – 25
Lab 2	Sept. 28 – Oct. 2
Lab 3	Oct. 5 – 9
Lab 4	Oct. 19 – 23
Lab 5	Oct. 26 – 30
Lab 6	Nov. 2 – 6
Lab 7	Nov. 9 – 13
Lab 8	Nov. 16 – 20
Lab 9	Nov. 23 – 27
Lab 10	Nov. 30 – Dec. 4

4. Course Materials

All course material will be posted to OWL: <https://westernu.brightspace.com/>. Students are responsible for checking the course 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 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 519-661-3800 or [REDACTED].

Technical Requirements

Stable internet connection; computer that can run Java and an IDE for Java (i.e. Eclipse or VS Code).

Textbook

There is a recommended digital textbook, zyBooks, for this course. zyBooks provides detailed explanations of relevant material as well as interactive activities and quizzes (not for marks). This is an excellent supplement for the material we cover in lectures and labs and it is strongly recommended especially for students who are new to Java.

Students are encouraged to purchase their zyBooks access code through the Western University Bookstore, where pricing is offered in Canadian dollars (\$75 CAD). Students may also purchase access directly through zyBooks for \$52 USD with the zyBook code: **UWOCOMPSCI1027ABSarloFall2026**. Both options provide access to the same course materials.

Western Bookstore link: https://bookstore.uwo.ca/textbook-search?campus=UWO&term=W2026A&courses%5B0%5D=001_UW/CSC1027A

If you have taken CS 1027A/B before and subscribed to the zyBook then, you can contact [REDACTED] to ask them for the new book for free since you have previously paid for the book (mention the new course code shown below in blue highlighting).

VS Code with AI Assistant (Optional)

Kritik is testing a brand new AI assistant tool called *Coding Authorship* and they have kindly allowed us to use this tool for **free** this term! The tool is an extension within VS Code and the AI will guide you on your assignments for this course without giving you the entire solution (which would be an academic offence!). This tool is completely optional and is not for marks. If you are interested, please follow the steps in the link below to learn more and get started!

<https://help.kritik.io/en/articles/16349134-kritik-coding-authorship-syllabus-insert>

If you encounter any technical issues with setting this up, please contact Kritik Support at [REDACTED], not the course instructor or TA.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be calculated as listed below:

- | | |
|---------------------------|-----|
| • Assignments (3) | 32% |
| • Midterm Tests (2) | 20% |
| • Labs (best 8 out of 10) | 8% |
| • Final Exam | 40% |

Assignments

There are three assignments that require you to apply the topics you learned from the lectures and/or labs and to implement Java programs.

All assignments are due via Gradescope at 11:55pm on the due date unless stated otherwise. If an assignment has to be cancelled by the instructor for any reason, the remaining assignments will be re-weighted to add up to 32%.

Assignments missed by the student are not re-weighted but are given a mark of 0.

Assignments will be submitted through Gradescope (not OWL) unless otherwise stated. You have free access to Gradescope as a Western student. Steps to submit on Gradescope will be explained in more detail closer to the deadline of the first assignment. We will not accept assignments submitted via email or any other format.

A large portion of each assignment's grade will come from auto-graded tests and the rest will come from programming style, formatting, comments, etc. Some of the tests will be provided, but note that additional tests may be run that are hidden from you, so you should create your own additional tests to ensure your code works properly in all cases. It is your responsibility to ensure the tests run and pass on Gradescope in order to get full marks (if the tests pass on your computer but not on Gradescope, you will **not** get those marks).

Assignments are to be done individually, not in groups. The submitted code will be run through a similarity-checking software to look for cheating. **Do not copy or share code in any way.**

Inappropriate Collaboration and Academic Dishonesty includes:

- Showing or sending your code to another student or a group chat
- Uploading your code to Github or another online repository where others can access it
- Writing code for someone else
- Looking at someone else's code
- Using code you find online
- Using ChatGPT, replit Ghostwriter, Copilot, Gemini, or another AI system to do all or a portion of any assignment or lab (including generating comments for you)
- Paying someone else to do any assessment for you
- Using an electronic device in a test/exam room including looking for help or taking pictures of the test/exam
- Having an electronic device on you (i.e. in your pocket) or on your desk during a test/exam

If you are using the Kritik Coding Authorship tool, any guidance provided by its AI is allowed in the assignments, but copying and pasting code generated by outside Generative AI sources is not allowed and will be considered a scholastic offence and handled as such.

Tentative Assignment Due Dates

Assignment #	Weight	Due Date
Assignment 1	8%	Tuesday, October 6
Assignment 2	12%	Tuesday, November 10
Assignment 3	12%	Tuesday, December 1

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

All assignments 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. Assignments that are not submitted by the end of the 48-hour no-late-penalty period will be marked **0** (not re-weighted).

Re-Submissions

Students may re-submit code on Gradescope as much as needed, but note that re-submissions (or any submissions) will not be accepted after the 48-hour no-late-penalty period. We mark only the active submission which by default is the latest submission made on there. If you wish to use a different submission, i.e. not the latest one, it is your responsibility to ensure you activate the submission you wish to use before the end of the 48-hour no-late-penalty period.

Midterm Tests

There will be two (2) in-class midterm tests each worth 10%. The tests will take approximately 40 minutes each. Due to classroom size constraints, some students may be writing the tests in a different classroom and these locations will be explained in class and on Brightspace well in advance of the tests.

All portions of the tests are written on paper, not with computers. They may include a combination of Multiple Choice, Written/Drawn Answers, and Algorithm Design. No notes, books, cheat sheets, calculators, or any electronic devices are allowed.

Test #	Test Date (tentative)	Test Topics (tentative)
Test 1	Wednesday, October 21	OOP, Arrays, Exceptions and Debugging, Linked Lists
Test 2	Wednesday, November 18	Inheritance, Stacks, Queues, Lists, Memory Management

- If a student writes one test but misses the other, the weight of the test they missed will be automatically shifted to the test they wrote.
- If a student misses both tests, the weights of both tests will be automatically shifted to the final exam.
- If a student writes both tests and if they receive a higher mark on the second test, that mark will be used to replace the mark of the first test automatically (i.e. if the first test is marked 63% and the second test is marked 75%, both tests will be marked with 75%).
- If a student receives a better grade on the final exam than on Test 1 and/or Test 2, the grade for the final exam will be used for that/those tests.

Students are strongly recommended to write both Test 1 and Test 2 as it provides a beneficial gauge of understanding during the term and can assist in getting back on track before the end of the term.

Labs

Lab instructions will be available on the course website in advance. Students are welcome to read the instructions before the lab but are **not** allowed to do the work (even partially) before the lab session.

- There are 10 weekly labs which should each take 1 hour or less to complete.
- The labs begin the week of September 21-25.
- **You must attend the lab section in which you are registered.** You **cannot** attend a different lab section even if you have a valid reason to miss your scheduled lab. You will receive a mark of 0 if you try to attend a different lab section.
- Each completed lab is worth 1% of your final grade and we will drop the lowest 2 labs at the end of the term.
- To receive credit for a lab, you must attend and work on the lab during your scheduled session and show your completed (or nearly completed) lab work to the lab TA before leaving. The TA may ask you questions about your work to check that you understood what you did in the lab.
- Coming to your scheduled lab section with the work already complete **is not permitted**. You will receive a mark of 0 if you try to do this.
- The labs are generally pass/fail, however a partial mark could be given if a significant portion of the lab work is missing. It is up to the discretion of the TAs to determine the grade for each lab.

- Since we are dropping the lowest 2 labs, you can miss up to 2 labs without affecting your mark. If you must miss more than 2 labs, those missed labs (after the dropped 2) will be automatically re-weighted to the final exam.
- It is your responsibility to sign the TA's attendance sheet and to show your completed lab work to them before leaving the lab room. Failure to do this will result in a mark of 0 for that lab. Forgetting to do these is not a valid excuse to get the lab mark.

Final Exam

The final exam will be scheduled by the University. The exam period is from December 11 to 22 and the exact date, time, and location for our exam will likely be announced in October.

The final exam is 3 hours in length and is a combination of Multiple Choice, Written/Drawn Answers, and Algorithm Design. All portions of the exam are written on paper, not with computers. No notes, books, cheat sheets, calculators, or any electronic devices are allowed. A double-sided 8.5" by 11" cheat sheet is permitted. No other aids are allowed.

Essential Learning Requirements

To be eligible to receive a grade of 50% or higher (i.e. to pass the course), you must achieve:

- at least 45% weighted average between the midterm and final exams, and
- at least 45% average between the three assignments

If you fail to meet **either** of these conditions, your final mark will be either 45% or your calculated grade, whichever is lower.

To be eligible to receive a grade of 65% or higher (i.e. to be eligible to go on in a Computer Science module), you must achieve:

- at least 50% weighted average between the midterm and final exams, and
- at least 50% average between the three assignments

If you fail to meet **either** of these conditions, your final mark will be either 60% or your calculated grade, whichever is lower.

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.

Assignments

The skills assessed in the assignments are essential to this course. They cannot be assessed through the midterm tests or final exam. If assignments are missed (after the 48-hour no-penalty-period), they are marked 0 and will **not** be re-weighted in any way.

Midterm Tests

This course has 2 midterm 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.

Labs

This course has 10 labs. Students are expected to complete at least 8 of 10 to receive full credit for this component. If they miss up to 2 of these, they do not need to request Academic Consideration; the missing lab(s) will not count against them, and their grade for this component will be calculated from their best 8 submissions.

If a student completes fewer than 8 of the total, the missing items will be recorded as a zero and included in their grade for this component. They are encouraged to submit all work, even if incomplete, since a partial mark is always better than a zero. If their final exam grade is higher than their grade on this component, their final exam grade will replace it.

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

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

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

Code submitted for assignments and/or other assessments may be run through sophisticated similarity-checking software, such as MOSS, to check for code similarity. Other tools may be used to determine if code was shared or generated by Generative AI.

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>).