



Department of Computer Science

**CS 1026A 650: Computer Science Fundamentals I
Summer 2024 - Online
Course Outline**

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1. Course Information

Lecture Schedule

Instructors	Time	Room
Section 650 <i>Prof. Abdelkareem Jaradat</i>	Prerecorded video lectures uploaded to OWL	ONLINE (OWL, ZyBooks, Gradescope, Zoom)

Course Schedule

All important dates are available in a separate Timeline document. You can find the document on OWL. You can also keep an eye on OWL calendar.

List of Prerequisites

There are no prerequisites. No previous programming experience is required.

Where to start?

The CS 1026A course site on OWL westernu.brightspace.com is labelled as "**COMPSCI 1026A 650: COMPUTER SCIENCE FUNDAMENTALS I**". login to OWL and find this site. You will find instructions for next steps in the welcome page.

Timezone

All times state in this course are in Eastern Time, ET. Please adjust your calendar accordingly.

2. Instructor Information

Instructors	Email	Office	Office Hours
<i>Prof. Abdelkareem Jaradat</i>	ajarada3 at uwo.ca	MC 24	Check OWL

TA Consulting

Teaching Assistants and their consulting hours for CS1026 will be posted on Teams.

TA	Email	Office	Office Hours
<i>Muhamed Alarbi</i>	<i>malarbi at uwo.ca</i>	<i>online</i>	<i>Check OWL</i>
<i>Duff Jones</i>	<i>Djone5 at uwo.ca</i>	<i>online</i>	<i>Check OWL</i>
<i>Shabnam Shabani</i>	<i>sshaban7 at uwo.ca</i>	<i>online</i>	<i>Check OWL</i>
<i>Mathias Babin</i>	<i>Mbabin2 at uwo.ca</i>	<i>online</i>	<i>Check OWL</i>

3. Communication

All communication between the students, instructor, and TAs is done through Email.

Students are encouraged to contact their course instructor/TAs via email with brief, appropriate questions regarding lecture materials or clarification of assignments. However, before sending any message to an instructor, you must follow the following steps:

1. Check the course outline for the information you want. If you didn't find what you want in the course outline,
2. Check the announcements, as the instructor/TAs regularly posts new information, clarification, and extra details. If you can't find an answer,

Students are divided into groups based on the student's last name. Each group contact one of the TAs using Email.

Office hours are available for **all** students without considering these groups.

3. Course Syllabus, Schedule, Delivery Mode

Course Description

CS 1026 provides an introduction to the basic concepts of computer programming and program design. It is intended for students who have an interest in learning basic programming skills including those who intend to study Computer Science. This course assumes no previous programming background, although having some experience with programming is an asset.

Programming skills will be developed using the Python programming language. Course topics include: data types, variables, expressions, program constructs, strings (text), functions, basic data structures (lists, tuples, sets dictionaries), objects, object-oriented design, classes, modularity, and problem-solving techniques. Programming examples and assignments are taken from a variety of disciplines.

Delivery

[Online, prerecorded, over OWL](#). The course lectures are in recorded videos format. At the beginning of each week, a new set of videos is uploaded with the corresponding topics covered.

Lecture Topics

- Introduction to Computers and Python
- Variable Types
- Input/Output

- Conditionals
- Loops
- Functions
- Lists, Tuples, Sets, and Dictionaries
- Exception Handling
- Object-Oriented Programming

Key Sessional Dates

title	Date
Classes begin	May 6, 2024
Midterm	June 1 st 2024 (tentative)
Classes end	June 14, 2024
Final Exam	June 15 th 2024 (tentative)

Course Schedule

Please refer to the [Timeline document](#) and OWL. In case of any changes in the schedule will be updated only on the timeline document. Any updates posted on OWL will override the dates posted in the course outline and the course schedule.

Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, affected course content will be delivered entirely online, asynchronously (e.g., posted on Teams for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

4. Course Materials

Students are responsible for checking the course OWL site on a regular basis for the course lectures, material, assignments, announcements, and updates. This is the only method by which information will be disseminated to all students in the class. All course material will be posted to OWL.

If students need assistance with the course OWL site, ZyBooks, Gradescope, or ProctorTrack they can seek support on the corresponding Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Technical Requirements

Stable internet connection; a computer (Windows, Mac, or Linux) that can run Python and the IDE.

The course makes use of the Python programming language (<https://www.python.org/>). We will be using **Python 3.9** and versions for Windows and Macs can be found at: <https://www.python.org/downloads/>. ***To avoid some installation problems, download Python first.***

When you download and install Python, you will get a simple editor/development environment called IDLE; you may use this (not recommended) for editing and creating your Python programs. We recommend to make use of richer development environments such as **VS Code** (<https://code.visualstudio.com/download>).

Textbook

There is a strongly recommended digital textbook, ZyBooks, for this course. Although it is **not required** for grades, it is in your best interest to purchase it in order to do well in the course. The course has tons of practice questions that you get immediate feedback. This helps you build better programming skills and gives you more practice time towards the exams.

Follow these steps to subscribe to the ZyBook now:

1. Sign in or create an account at <https://learn.zybooks.com/>
2. Enter zyBook code: **UWOCOMPSCI1026ABJaradatSummer2024**
3. Subscribe

There is a cost associated to purchasing this book that equals to **\$57 USD**.

Technologies used

This course utilizes several platforms to ensure students the best experience. It is important for students to know which platform is used for what:

1. **OWL:** This is used to find all course material, labs instructions, assignments instructions, announcements, discussions, contacting TAs. Also used to track your grades, and do the quiz, midterm and final exam
2. **Gradescope:** Used to submit the assignment.
3. **Zybooks:** Contains the course material, practice problems.
4. **ProctorTrack:** Needs to be enabled to be able to do the exams.
5. **VScode:** The coding environment used to write, debug, and run your code.

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Orientation quiz	2%	
Assignments (3)	35%	(8%, 12%, and 15%)
Labs (10)	8%	(1% each; the lowest 2 are dropped)
Midterm Test	20%	
Final Exam	35%	

Assignments

There are 3 assignments that require you to apply the topics you learned from the lectures and/or labs and implement Python programs.

All assignments are due via **Gradescope** at 11:55 pm ET on the due date unless stated. Otherwise, if an assignment (or part of it) has to be cancelled by the instructors for any reason, the remaining assignments will be re-weighted to add up to 35%.

Late Policy on Assignments

It is expected that students budget enough time to properly submit their assignments via OWL and allow for any unforeseen technological issues. Students are expected to regularly backup their assignments and submit well before any deadline.

- An **Assignment Late Coupon (ALC)**: Is an automatic excuse that is applied automatically when an assignment is submitted late. **1 ALC** waives the late penalty of of **1 day**.
- Each student will be given **four (4)** Assignment Late Coupons (ALCs) in total for the semester that may be used to submit an assignment one day late per coupon.
- Late coupons are only used for assignments and **can't** be used for labs, lectures, quizzes and all other course components.
- You can use 0, 1 or 2 ALCs per an assignment. You **can't** use 3 or 4 ALCs per an assignment.
- ALCs will **not** be replenished. For example, if you use 2 late coupons on Assignment 1, you will only have 2 left for the remainder of the assignments.
- **ALCs will be applied automatically** when an assignment is submitted late. The remaining coupons are tracked in the OWL gradebook.
- Each late coupon is valid for a 24 hour period only. For example, if an assignment is due on February 1st at 11:55 pm and the student submits on September 1st at 11:56 pm this would require one ALC, as would any submission between February 1st at 11:56pm and February 2nd at 11:55 pm. After February 2nd at 11:55pm and up to February 3rd at 11:55 pm, 2 late coupons would be required. After February 3rd at 11:55pm, no more submissions will be accepted, and a **zero** grade will be given on the assignment.
- It is the student's responsibility to keep track of how many late coupons they have available throughout the semester. Occasionally the teaching assistants may be tardy on updating each student's late coupon total. In case of a discrepancy, the actual number of coupons used (and not what is listed in OWL) will be applied.
- If a student has no late coupons remaining or submits an assignment more than 2 days late, a zero grade will be given for the assignment (**no partial late marks will be given**).

- ALCs must be used before special circumstances are considered. This means that you need to consume all late coupons before applying for academic consideration. Therefore, late coupons will override any academic consideration.
- **After all late coupons are used, no extensions will be given for assignments** except for in the event of serious medical or compassionate grounds. A student must follow the procedure for Academic Accommodation for Medical Illness as given in this document.
- **Again, late coupons cannot be used on any course component except assignments.**

Re-submissions are allowed as many times as you want. We will mark you last submission. However, note that re-submissions after the deadline will be considered late, regardless of when the initial submission was made.

Assignments will be submitted through Gradescope 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, teams, or any other format.**

A portion of each assignment's grade will come from auto-graded tests and the rest will come from programming style, formatting, logic, comments, etc. Sometimes, 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 code is tested well before submitting to Gradescope in order to get full marks (if the tests pass on VScode 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.**

Assignments schedule:

An announcement will be posted to OWL if any change may happen. Please follow the timeline document for assignment dates.

Labs

Lab instructions will be available on the course website at the start of each week.

- There are 10 weekly labs, each of which should each take 1 hour or less to complete.
- Refer to the course timeline file for the dates of availability.
- Labs are done individually. This means that you can do the on your own time while submitting it before the due date/time.
- Completed labs are submitted through Gradescope. You will find a separate lab assignment entry for each lab.

- At the beginning of each week, every Monday midnight, 2 lab submission tabs will be active on Gradescope. Please complete the 2 labs and submit them to Gradescope before Friday 11:55 PM EST. After this time the submission tab will be disabled.
- It is your responsibility to submit the completed lab work at 11:55 pm on the due date after the lab is posted. Submissions occur after the specified time will not be considered.
- 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 complete the lab work during the week and submit it before the end of the week to Gradescope.
- The labs are generally pass/fail, so, 0 or 1.
- Since we are dropping the lowest 2 labs, you can miss up to 2 labs without affecting your mark. This way, if you have any emergencies, you can miss 2 labs while you still can get the full marks.

Midterm

The midterm will be tentatively be late of May. It is online over OWL and ProctorTrack. If the date or time for the midterm is changed, an announcement will be posted on Teams with the new exam information. The midterm format is announced later.

You are required to do an on-boarding test with Proctortrack to make sure that your computer setup is fine and to avoid complications at the exam time. Please complete the on-boarding test once posted.

There will **not** be a make-up midterm. If you cannot write the midterm for a valid reason (i.e. conflict with another university assessment, medical reasons, or religious reasons), you will have to contact your academic counsellor to request accommodations to miss the midterm. If you obtain such accommodations, the weight of the midterm will be shifted to the final exam, making it worth $20+35=55\%$. **Without such accommodations, missing the midterm will result in a mark of zero on the midterm and it cannot be made up.**

Final Exam

The final exam will be scheduled by the University. The exact date, time, and location for our exam will likely be announced in May. The final exam is cumulative and it will be conducted online over OWL and ProctorTrack.

The post-midterm topics will be more prevalent on the final exam but pre-midterm topics will be testable on the final exam too.

Grade Requirements

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

- at least 40% on the final exam, and
- at least 40% weighted average on all the assignments

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

Examples:

Scenario 1: You passed the coursework and failed the final exam:

Suppose you received 65 out of 65 in the coursework. This means that you **passed** in the **coursework** because $65 > 0.4 * 65$. If you received 13 out of 35 in the final exam, you **failed** in the **final exam** because $13 < 0.4 * 35$.

With these marks, you didn't pass **both** component which means you will **fail the course**. The final mark will be: $\min(45, 65 + 13) = 45$

Notice that your accumulated grade is 78/100 but you will fail the course and get 45!

Scenario 2: You passed the coursework and passed the final exam:

Suppose you received 30 out of 65 in the coursework. This means that you **passed** in the **coursework** because $30 > 0.4 * 65$. If you received 21 out of 35 in the final exam, you **passed** in the **final exam** $21 > 0.4 * 35$.

With these marks, you passed **both** component which means you will **pass the course**. The final mark will be: $30 + 21 = 51$.

To be eligible to receive a grade of 60% or higher, you must achieve:

- at least 50% on the final exam, and
- at least 50% weighted average on the four assignments

If you fail to meet **either** of these conditions, your final mark will be either 58% or your calculated grade, whichever is lower.

6. Student Absences

If you are unable to meet a course requirement due to illness or other serious circumstances, please follow the procedures below.

Assessments worth less than 10% of the overall course grade:

There will be no accommodation for labs as you have the freedom to complete them with your own schedule over a period of 1 week.

Assessments worth 10% or more of the overall course grade:

For work 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. **The instructors and the TAs will not accept any excuse without a letter from the counsellor.**

For further information, please consult the University's medical illness policy at

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.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).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under [Special Examinations](#)).

Note: missed work can *only* be excused through one of the mechanisms above. Being asked not to attend an in-person course requirement due to potential COVID-19 symptoms is **not** sufficient on its own.

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.

No electronic devices (including phones, calculators, etc.) are permitted on the midterm or final exam.

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.

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.

Code submitted for labs, assignments, and/or exams may be run through comparison-checking software such as MOSS to look for cases of cheating.

In the event of health lock-down, tests and exams in this course may 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:

<https://remoteproctoring.uwo.ca>.

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.

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/>.