

# CS 1026A 650: Computer Science Fundamentals I

## Fall 2022 – Online

### Course Outline

## 1. Course Information

### Lecture Schedule

Instructors	Time	Room
Section 650 <i>Prof. Abdelkareem Jaradat</i>	Uploaded to OWL on a weekly basis	ONLINE (OWL)

### Lab Schedule

Lab tutorials are posted online on a weekly basis.

### List of Prerequisites

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

## 2. Instructor Information

Instructors	Email	Office	Office Hours
<i>Prof. Abdelkareem Jaradat</i>	<a href="mailto:ajarada3@uwo.ca">ajarada3@uwo.ca</a>	MC 24	TBD

### TA Consulting

Teaching Assistants and their consulting hours for CS1026 will be posted on the course website and announced during the second or third week of the term once the information is available to the instructors.

### Email Communication

As this course is delivered online, students must use their Western (@uwo.ca) email addresses when contacting their instructors or TAs. 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 email 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 tab, as the instructor/TAs regularly posts new information, clarification, and extra details. If you can't find an answer,
3. Check the course forums. These forums are a place that you can ask your colleagues for help or you can provide help for your peers. Forums are a good place to regularly visit, you may get inspired by others or you can inspire others. If you can't find an answer to your issue,

4. You may finally use the email as follows:
  - a. If the question is about the course material (clarification, problem in code, technical problems, or any material-related question), you **MUST** contact one of the TAs first about your issue. If the TAs can't solve your issue s/he then will forward your email to me CCing you. I will not answer material-related emails without getting them forwarded by TAs.
  - b. If the question is about the course logistics, you can directly email me (given that you have already tried the outline, announcements, and forums).

As all communication is done electronically, there will be lots of incoming emails and therefore **you must include the exact course code (CS1026FW22)** in the subject line of emails you send regarding this course to reply as soon as possible. Other than that, delayed responses are expected as your email may get lost.

Note that the Western email system does not allow Python files (.py) to be attached to any email. In general, you should avoid emailing code anyway, but if you ever need to send code to your TA or instructor, you will have to change the extension or ZIP (compress) the file(s) and send the ZIP (filename.zip) file instead.

## 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.

### Lecture Topics

**Online over OWL site** <http://owl.uwo.ca> . The course lecture 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 and Inheritance

## Key Sessional Dates

title	Date
Classes begin	September 8, 2022
Fall Reading Week	October 31 – November 6, 2022
Classes end	December 8, 2022
Exam period	December 10 – 22, 2022

## Lab Schedule

Lab #	Week
Lab 1	Sept. 19 – 23
Lab 2	Sept. 26 – 30
Lab 3	Oct. 3 – 7
Lab 4*	Oct. 10 – 14
Lab 5	Oct. 17 – 21
Lab 6	Oct. 24 – 28
Lab 7	Nov. 7 – 11
Lab 8	Nov. 14 – 18
Lab 9	Nov. 21 – 25
Lab 10	Nov. 28 – Dec. 2

\* October 10 is the Thanksgiving holiday so the university will be closed. Since this is an online course, labs will run normally on this date.

## Tutorials

The purpose of the weekly tutorials is to give students opportunities to work with Teaching Assistants, ask questions, review material, see live programming examples, etc. For each tutorial, a live programming demo is conducted over zoom. Students have the opportunity to show the thinking process to solve programming problems and ask questions accordingly.

Attendance at tutorials is not mandatory but highly encouraged.

## 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, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL 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 (<http://owl.uwo.ca>) 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. The CS 1026A course site on OWL is labelled as "**COMPSCI 1026A 650 FW22**". All sections of the course are using the same site.

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.

### Technical Requirements

Stable internet connection; a computer (Windows, Mac, or Linux) that can run Python and the selected 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>) or **PyCharm Educational Version** (<https://www.jetbrains.com/pycharm-edu/>).

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.

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: UWOCOMPSCI1026ABFall2022
3. Subscribe

## 5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Assignments (4)	37%	(5%, 8%, 12%, and 12%)
Labs (10)	8%	(1% each; the lowest 2 are dropped)
Midterm Test	20%	
Final Exam	35%	

### Assignments

There are four 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 on the due date unless stated. Otherwise, if an assignment has to be cancelled by the instructors for any reason, the remaining assignments will be re-weighted to add up to 37%.

### ***Late Policy on Assignments***

Each student is given 4 late coupons which give a grace period on the submission of an assignment. Each coupon waives the late penalty for one day, and multiple late coupons can be used on the same assignment. For example, if you submit Assignment 1 two days after the due date, there will be no late penalty and you will be left with 2 late coupons for the remaining assignments. If you submit an assignment late after you have used all your late coupons, there will be a late penalty of 10% per day.

Assignments can be submitted up to 3 days late – regardless of how many late coupons may have been used. Assignments will not be accepted more than 3 days after the due date and will be graded as 0.

Re-submissions are allowed but 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 (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 portion of each assignment's grade will come from auto-graded tests and the rest will come from programming style, formatting, logic, 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 Eclipse 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.**

### Tentative Assignment Due Dates:

Assignment 1	Wednesday, October 5
Assignment 2	Wednesday, October 26
Assignment 3	Wednesday, November 16
Assignment 4	Wednesday, December 7

## **Labs**

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

- There are 10 weekly labs which should each take 1 hour or less to complete.
- The labs begin the week of September 19-23.
- 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 your scheduled lab time and show the TA the finished work and sign their attendance sheet.
- The labs are generally pass/fail, however, you could get a partial mark if you missed a significant portion of the required work.
- 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, you should contact your academic counsellor to request accommodations for the missed labs. If they approve your absence for the additional labs (after the first 2), then you can complete the missed lab later on.
- Labs that are missed without accommodations will be given a grade of 0 and will not be re-weighted. Only two are dropped so absences after that will be considered a 0 toward your grade.

## Midterm

The midterm is scheduled for **Sunday, November 13 from 3pm to 5pm** EST online over OWL. The midterm will be 2 hours in length and will be completely multiple choice format.

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 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 exam period is from December 10 to 22 and the exact date, time, and location for our exam will likely be announced in November. The final exam is cumulative and is 3 hours in length and will be completely multiple-choice format and it will be conducted online over OWL.

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 the four 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 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:**

You can miss up to 2 labs without any penalty since we drop the lowest 2 labs. If you miss several labs due to an ongoing illness or other valid reason, you should contact your academic counsellor to seek accommodations for the other labs you miss and then contact your course instructor about it.

For assignments, you have 4 late coupons that will automatically give leniency with due dates. If you required additional time with assignments (after your late coupons run out) with a valid reason, you should contact your academic counsellor to seek accommodations for the assignments that are late and then contact your course instructor about it.

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

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](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](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.

## 6. 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](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf).

## 7. 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](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](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>.

## 8. 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](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](mailto: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/>.